SURFACE TENSION OF NORMAL ALKANES [Cont'd] S/204/63/003/002/001/006

where M is the molecular weight, a and b are constants, and T is temperature in °K. This formula is valid not only for alkanes, but also for alkenes, alkynes, arenes, and cyclic hydrocarbons at temperatures from the melting point to the boiling point. The temperature coefficient of surface tension for normal alkanes varies from 0.08 to 0.12. There were no anomalies near the melting point. The parachor values diminished at low temperatures. The parachor temperature coefficient was 0.03 for hexane and 0.05 for octane and decane. [EDW]

Card 2/2

L 13326-63 EWT(m)/BDS(j)/EWT(c)/BDT(m)/BDS Pc-4/Pc-4/Pr-4 RM/MM

ACCESSION NR: AP3002771 S/0204/63/003/003/0310/0313

AUTHOR: Ben'kovskiy, V. G.; Berezlovskaya, T. M.; Kivko, L. D.; Maurusov, M. Kh.

TITLE: Index of refraction of normal alkanes at low temperatures

SOURCE: Neftekhimiya, v. 3, no. 3, 1963, 310-313

TOPIC TAGS: refraction index, normal alkane, IRF-22 refractometer, hexane, heptane, octane, nonane, decane, undecane, normal alkane refraction index

ABSTRACT: The measurement of the index of refraction at low temperatures presents a great difficulty. The condensation of moisture on the prisms hinders the measurement. The use of special plastics, as suggested by others, proved to be a failure in this experiment at a temperature below 243K. A new and simple method has been proposed in determining refractive indexes at low temperatures with an IRF-22 refractometer. The refractometer was hermetically sealed inside a methylmethacrylate box inside of which were placed moisture absorbents which absorbed the moisture condensed on a copper cooling coil before this moisture had a chance to condense on the prisms. This arrangement made possible a measurement of the refractive index at temperatures as low as 160K. The refractive indexes of the following normal alkanes were measured: hexane, heptane, octane, nonane, decane,

Card 1/2

L 13326-63
ACCESSION NR: AP3002771

and undecane. Measurements were carried out at temperatures ranging from 293K to crystallization temperature. Dependent refractive index has been confirmed for normal alkanes up to their crystallization temperature. It has been shown that, with a decrease in temperatures, the molecular refraction of normal alkanes decreases uniformly up to their crystallization temperature. Orig. art. has: 3 tables.

ASSOCIATION: Institut khimii nefti i prirodnykh soley AN Kaz.SSR (Institute of Petroleum Chemistry and Natural Salts, AN Kaz.SSR)

SUBMITTED: 18Aug62 DATE ACQ: 23Jul63 ENCL: 00

SUB CODE: OO NO REF SOV: 005 OTHER: 003

Card 2/2

MIGACHEV, G.B.; KIYKO, N.I.

Chemicolegal detection of para-toluidine and meta-dinitrobenzene. Sud.-med. ekspert. 6 no.3:49-50 Jl-S'63. (MIRA 16:10)

1. Ivanovskoye oblastnoye byuro sudebnomeditsinskoy ekspertizy (nachal'nik - dotsent S.N.Bakulev).
(TOLUIDINE) (BENZENE) (CHEMISTRY, FORENSIC)

IVANOV, P.; MEFOD'YEV, P. (g.Alma-Ata); PERFILOV, M. (g.Sverdlovsk); KIYKO, P., vneshtatnyy instruktor; RZHEVSKIY, Ye.; LIPOVA, K., inzh.-tekhnolog (g.Baku)

Letters to the editor. Obshchestv. pit. no. 3:50-51 Mr '61. (MIRA 14:4)

1. Gorodskoy komitet Kommunisticheskoy partii Sovetskogo Soyuza i Ministerstvo torgovli RSFSR po obshchestvennomu pitaniyu, g. Ul'yanovsk (for Kiyko). 2. Starshiy instruktor-kulinar Chelyabinskogo oblastnogo upravleniya torgovli (for Rzhevskiy).
(Restaurants, lunchrooms, etc.)

L 27371-66 EWT(l)/EWA(h)

ACC NR: AP6005296 SOURCE CODE: UR/0413/66/000/001/0038/0038

INVENTOR: Pankin, A. A.; Klykov, G. A.

ORG: none

TITLE: A dc amplifier with transistorized noncontact converter. Class 21, No. 177463 [announced by Krasnodar Measuring Instrument Plant (Krasnodarskiy zavod izmeritel'nykh priborov)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 38

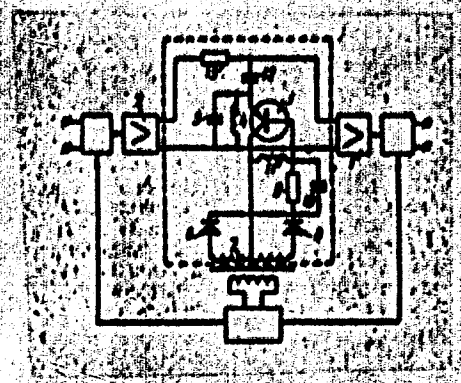
TOPIC TAGS: dc amplifier, transistorized circuit, signal to noise ratio

ABSTRACT: This Author's Certificate introduces a dc amplifier with transistorized noncontact converter. The signal-to-noise ratio is improved by connecting a switching transistor shunted by an LC-circuit between the pulse amplifier and power amplifier in series with a full-wave rectifier circuit, high-frequency filter and range multiplier with separating capacitor.

UDC: 621.375.024

Card 1/2

L 27871-66
ACC NR: AP6005296



1--pulse amplifier; 2--power amplifier; 3--switching transistor; 4--inductive circuit; 5--capacitive circuit; 6 and 8--rectifier diodes; 7--transformer winding; 9--filter resistor; 10--filter capacitor; 11--filter inductance; 12--separating capacitor; 13--instrument multiplier.

SUB CODE: 09/ SUBM DATE: 11Feb65

Card 2/2

KIYKOV, P.D., insh.; MIKHALEV, V.G., insh.

Making and using sectional reinforced concrete supports in mine No. 23. Shakht. stroi. no.5:27-29 '58. (MIRA 11:6)

1.Leninskoye stroitel'noye upravleniye kombinata Karagandashakhtostroy.
(Mine timbering) (Reinforced concrete construction)

KIYKOV, P.D.; TRUTNEV, A.P.; MAKHNATKIN, B.N.

Flexible belt conveyer. Gor. shur. no.11:73-74 N '63.
(MIRA 17:6)

KITKOV, P.D., insh.; PETROV, V.S., insh.

Readers' response to A.M.Platkin's article "Efficient hole diameter for anchor bolting." Shakht.stroi. 4 no.9:26-27 S '60. (MIRA 13:8)

1. Giprouglegormash.
(Mine roof bolting) (Platkin, A.M.)

KIYLER, M. [Kiiler, M.], kand.tekhn.nauk; DILAKTORSKIY, N.L., doktor geol.-mineral.nauk

Crystallization of shale-ash melts of a composition corresponding to portland cement. Eesti tead akad tehn fuus 11 no.2:128-139 '62.

1. Institut stroitel'stva i stroitel'nykh materialov AN Estonskoy SSR.

KIYLER, M. A., Cand Tech Sci -- (diss) "Investigation of the processes and crystallization of shale ash ~~fusions~~ melts." Tallinn, 1957, 16 pp (Academy of Sciences USSR. Institute of Chemical Silicates), 100 copies (KL, 36-57, 105)

KIYLER, M.A.

Viscosity measurements of shale ash melts. M. A. Kiiler. Izvest. Akad. Nauk Eston. S.S.R. Ser. Tekh. i Fiz.-Mat. Nauk 1957, No. 1, 58-61 (in Russian). Viscosity measurements with the use of a viscometer based on the counterbalanced sphere principle were made on melts of 2 types of ash and on their various mixts., the one from a fuel shale and the other from the Dictyonema shale, with the following [illegible] Fe_2O_3 [illegible]; CaO [illegible]; MgO 2.0-1.4; K_2O 3.0-6.0; SO_3 7.0-0.8; CO_2 0.7-0.0. Plotted results show a sharp rise in viscosity as the percentage of the Dictyonema ash goes from 0 to 30. For mineral wool manufg., in order to raise acid resistance, admixts. of 20% or more of the latter ash is recommended, while for cast blocks as much as 30% to 40% can be used. H. L. Olin

KIYLER, M. A. and DILAKTORSKIY, N. L.

"Exfoliation of Slate-Kukersite Cinder Melts" p. 201

~~"Synthesis and Structure of Hydrosilicates containing Simple and Complex Heavy Metal Cations." p. 38~~

Transactions of the Fifth Conference on Experimental and Applied Mineralogy and Petrography, Trudy ... Moscow, Izd-vo AN SSSR, 1958, 516pp.

reprints of reports presented at conf. held in Leningrad, 26-31 Mar 1956. The purpose of the conf. was to exchange information and coordinate the activities in the fields of experimental and applied mineralogy and petrography, and to stress the increasing complexity of practical problems.

KIYN, K.Ya. [Kiin, K.]

Incision of abscesses in traumatic reticulitis of cattle. Veterinariia 38 no.1:57 Ja.'61. (MIRA 15:4)

1. Glavnyy veterinarnyy vrach Kygevaskogo rayona, Estonskoy SSR.
(Stomach—Abscess) (Veterinary surgery)
(Cattle—Diseases and pests)

KIYN, K.Ya. [Kiin, K.], zasluzhennyy veterinarnyy vrach Estonskoy SSR

Surgical treatment of vaginal prolapse in cows. Veterinariia 40 no.6:58-59 Je '63. (MIRA 17:1)

1. Glavnyy veterinarnyy vrach YIgevaskogo [Jogeva] rayona, Estonskoy SSR.

ACC NR: AP6019444 (N) SOURCE CODE: UR/0308/66/000/002/0039/0039

AUTHOR: Kiyn, S. (Engineer; Specialist in varnish and paint); Orlov, V. (Laboratory chief)

26
24
B

ORG: Riga Ship Repair Yard (Rizhskiy sudoremontnyy zavod)

TITLE: Durable paints for ships

SOURCE: Morskoy flot, no. 2, 1966, 39

TOPIC TAGS: shipbuilding engineering, paint / XB-53 paint, NIVK paint

ABSTRACT: The use of the new XB-53 paint for painting ship hulls is discussed on the basis of experience acquired by Riga Ship Repair Yard since August 1964. The greatest advantage of this paint is its property of quick drying in winter. Two layers of paints need only 2.5 days for drying at a freezing temperature of -5 C, while the old paints of NIVK type need 5 days. In summer, only 1.5 days are required. The XB-53 can be used for painting at temperatures down to -20 C. It stands up well to the action of air and is less expensive than the paints of NIVK series. However, the XB-53 becomes very toxic in summer and the use of gas masks is prescribed. No gas masks are usually needed in winter.

Card 1/2 UDC: 621.315.617.1

ACC NR: AP6019444

2

In connection with the XB-53 paint, the use of paints of ethyne-chlorinated polyvinyl chlorides types is recommended for painting colored water lines. These specially prepared paints are used by the Riga Shipyard at temperatures down to -25 C. The drying time is only about 4 hours.

SUB CODE: 11, 13/ SUBM DATE: None

Card 2/2

KIYBANEN, Ivan Andreyevich; ZHUKOV, A., redaktor; SHEVCHENKO, L., tekhnicheskiy redaktor.

Petrozavodsk, Izd.2-oe, perer. i dop. Petrozavodsk, Gos.izd-vo karelo-Finskoi SSSR. 1955. 98 p. (MLRA 8:12)
(Petrozavodsk--Description)

KIYS, V

(Estonian)

see K115

[illegible], [illegible] [illegible]; [illegible], V.A. [[illegible], V.]; Y[illegible], A.O. [Jaagosild, A.]

[illegible] with [illegible] point counting [illegible]. [illegible] 29 no.[illegible] N-D '64. (MIRA 18:12)

1. Laboratoriya [illegible] i eksperimental'noy [illegible] Gosudarstvennogo universiteta, Tartu. Submitted February 7, 19[illegible].

ACCESSION NR: AP4039949 S/0191/64/000/006/0044/0045

AUTHOR: Aarna, A. Ya.; Kiyaler, K. R.; Freydin, A. S.; Sholokhova, A. B.

TITLE: Synthetic adhesive based on DFK resins from dihydric phenols from oil shale.

SOURCE: Plasticheskiye massy*, no. 6, 1964, 44-45

TOPIC TAGS: DFK resin, diphenolketone resin, adhesive, cement, synthesis dihydric phenol, alkylated resorcinol, condensation, curing, application, commercial production

ABSTRACT: The technology of a two-stage condensation of alkylated resorcinols to produce adhesive resins was worked out. The bulk of the phenols from tar waters (dihydric phenols whose empirical formula approximates that of dimethylresorcinol), when condensed with formaldehyde in the presence of acetone, form stable high quality DFK (diphenolketone) resins. These resins can be cured at room temperature with formalin or at higher temperatures with urotropine. The mechanism proposed for the condensation of alkylated resorcinols with formaldehyde includes the formation of the ether bond as shown by the equations:

Card 1/2

ACCESSION NR: AP4039949

$$Ar(CH_2)_n(OH)_3 + HCHO = (CH_2)_n(OH)_2ArCH_2OH$$

$$(CH_2)_n(OH)_2ArCH_2OH + Ar(CH_2)_n(OH)_3 =$$

$$= (CH_2)_n(OH)_2ArCH_2-O-Ar(OH)(CH_2)_n + H_2O$$

where Ar is an aromatic ring and n = 1-3. The use of resin DFK-1A for cementing wood, asbestos and different plastics will be shown in subsequent communications. The commercial output of DFK has been arranged at the Slantsekhimicheskom kombinate Kiviy*li v Estonskoy SSR (Shale Chemical Combine in Estonian SSR). Orig. art. has: 1 table.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00

SUB CODE: MT NO REF SOV: 000 OTHER: 000

Card 2/2

ACCESSION NR: AP4041787 S/0191/64/000/007/0059/0062

AUTHOR: Gubenko, A. B., Freydin, A. S., Sholokhava, A. B., Aarna, A. Ya., Kiysler, K. R.

TITLE: Synthetic adhesives based on DFK resins from the divalent phenols of oil shales

SOURCE: Plasticheskiye massy*, no. 7, 1964, 59-62

TOPIC TAGS: synthetic adhesive, resin, DFK resin, phenol, oil shale, bond strength, adhesion, marshalite, silicon calcite, divalent phenol, adhesive

ABSTRACT: Preliminary experiments showed that among all resins of the DFK type, the most promising for bonding cement materials is the resin DFK-1A. The influence of different fillers on the bond strength of asbestos cement glued with an adhesive based on DFK-1A was therefore investigated in the dry state and after a 24-hour wetting. The best strength characteristics were obtained with ground silicon-calcite, marshalite and hydrophobic sand (the latter produced by the Institut lesokhozyaystvenny*kh problem AN Latv. SSR (Institute of Forestry Problems, An Latv. SSR) from dune sand treated with wood resin).

Card 1/2

ACCESSION NR: AP4041787

Addition of aluminum powder to the adhesive (3-5% of the resin) increased the bond strength by 30-50% with marshalite and by 100% with sand. Aluminum powder considerably increased the adhesion to metals. The relationship between bond strength and exposure time was then investigated for a minimum exposure time of 16 hours under pressure. Adhesion was found to be accelerated by heating (60 - 80C). By heating under pressure, the adhesion time could be reduced to 15-30 min. and a higher bond strength was obtained than with cold pressing (50 and 25 kg/cm^2, respectively). The dependence of complete hardening on the hardening conditions and fillers in the DFK-1A is shown by tabulated data. The behavior of the adhesive bond under the influence of high temperature and humidity is discussed, and the possible uses of the adhesive are described in detail. Orig. art. has: 2 tables and 2 figures.

ASSOCIATION: None

SUBMITTED: 00 DATE SEL: 30Jul64 ENCL: 00

SUB CODE: MT NO REF SOV: 007 OTHER: 000

Card 2/2

KIYSS, I.A.

124-11-13427

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 157 (USSR)

AUTHOR: Kiyss, I. A.

TITLE: To the Calculation of Reinforced-Concrete Structures with Due Consideration of the Creep and Relaxation of the Concrete.
(K raschetu zhelezobetonnykh konstruktsiy s uchetom polzuchesti i relaksatsii betona.)

PERIODICAL: Tr. Tallinsk. politekhn. in-ta. 1957, A, Nr 21, pp 111.

ABSTRACT: The paper gives a concise summary of the bases of the practical calculation of creep and relaxation, viewing them as two aspects of the after-effect of a stressed state. The transformation of the indispensable integral equations to a system of algebraic equations is shown. For problems that are defined by a single integral equation, two methods of parallel and non-parallel curves (deformation curves for creep and stress curves for relaxation) are provided, based on the works of N. Kh. Arutyunyan (Problems of Creep Theory, Gostekhteoretizdat, 1952) and F. Dischinger (in "Bauingenieur", 1937, H. 33-40). Recommendations are made on the evaluation of the

Card 1/2

To the Calculation of Reinforced-Concrete Structures with Due Consideration of the Creep and Relaxation of the Concrete. (Continued)

accuracy of approximations made in the calculations and its improvement. The paper indicates the application of the fundamentals of the theory in the study of eccentric compression of reinforced-concrete elements.

I. K. Snitko

S/055/63/000/001/003/008
D251/D308

AUTHOR: Kiyushin, V. L.

TITLE: Paracompactness and countable paracompactness

PERIODICAL: Moscow. Universitet. Vestnik. Seriya I. Matematika, Mekhanika, no. 1, 1963, 35-38

TEXT: Adopting the terminology of A. H. Stone (Bull. Amer. Math. Soc., v. 54, 977-982, 1948) and E. Michael (Proc. Amer. Math. Soc., v. 4, 831-838, 1953; Proc. Amer. Math. Soc., v. 8, 822-828, 1957) and assuming coverings to be open, unless it is stated to the contrary, the author proves the following: Theorem 1: A space X is paracompact if it is pointwise paracompact, and if some covering may be properly inscribed in every one of its coverings. Theorem 2: The following properties of normal spaces are equivalent: a) in every countable covering of the space X it is possible to inscribe a point-finite covering; b) in every countable covering of the space X it is possible to inscribe a locally-finite covering; c) in every countable covering of the space X it is possible

Card 1/2

Paracompactness and countable ... S/055/63/000/001/003/008
D251/D308

to inscribe a star-finite covering. The results of Michael may be extended to countably-paracompact sets, and the special cases of the spaces of V. V. Proizvolov and V. V. Nemytskiy are cited among the examples.

ASSOCIATION: Kafedra vysshey geometrii i topologii (Department of Higher Geometry and Topology)

SUBMITTED: April 20, 1962

Card 2/2

KIYUTSNIKOV, N.G.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1677
AUTHOR KIJUCNIKOV,N.G.
TITLE On the Rectifying Properties of Silver Selenide and Silver Telluride.
PERIODICAL Zurn.techn.fis,26,fasc.11, 2603-2603 (1956)
Issued: 12 / 1956

Like the previously described copper selenide, these compounds have some rectifying properties. The author produced these compounds by smelting the corresponding quantities of selenium or tellurium with silver. From the substances thus produced plates were then cut out. The rectifying properties of these substances become effective only after a corresponding forming in a constant electric current. During the forming process the selenide or telluride plate was firmly compressed between a magnesium- and a copper plate, and an electric current is made to pass in the nonconducting direction (when the magnesium plate is the cathode). At the place of contact between the silver selenide or silver telluride and the silver a spark is occasionally to be noticed and amperage gradually diminishes by some thousand times. Because of the considerable heating of the samples forming should be interrupted from time to time. Forming is particularly difficult in the case of silver telluride and it takes 10 to 12 hours. The "valves" obtained have interesting volt-ampère characteristics with high quotients (current flowing backwards / current flowing forward). In the case of silver telluride this ratio in some samples attains 1 : 18000 and 1 : 19000. The forward flowing current is very

Zurn.techn.fis,26,fasc.11,2603-2603 (1956) CARD 2 / 2 PA - 1677

powerful because of the good conductivity of the samples, e.g. with Ag_2Se about 2 V ~17 a/cm^2 and with Ag_2Te about 1,4 V up to 40 a/cm^2. The current flowing backwards at 12 V in the case of Ag_2Te is ~12 milliampères, and with Ag_2Se ~ 16 milliampères/cm^2.

The barrier layer forms by the reduction of a thin selenide- or telluride layer by magnesium: Mg + Ag_2Te + 2 Ag. The existence of such a reaction was found by means of chemical methods. The valves described rectify an alternating current very badly. Thus the amperage of a rectified current in the case of Ag_2Se at a voltage of 1 V is about 1 a/cm^2, but in this case the sample is heated considerably. The Ag_2Te hardly rectifies an alternating current at all. This can be explained by the fact that these valves are slightly deformed by the passage of a current flowing in a forward direction and need some considerable time to become fully formed. Deformation takes place also if the valves are conserved. Weak valve properties are found also in other selenides and tellurides, particularly in the compounds of thallium and bismuth. This asymmetry in conductivity is produced only after the described exchange reactions and it occurs only by contact with reduction media which are as strong as magnesium, aluminium, and calcium. This is nearly a verbal translation of this short report.

INSTITUTION:

KIYUKOV, V., doverennyy vrach

Moscow Province Public Health Department does not refuse, but...
Okhr. truda i sots. strakh. no.2:76-77 Fe '59. (MIRA 12:4)

1. Moskovskiy oblastnoy profsovet.
(MOSCOW--MEDICINE, INDUSTRIAL)

LYAKHOVSKIY, V.N., kand.tekhn.nauk; BEREZTOVENKO, K.M., inzh.; ZAYTSEV, R.V., inzh.; KIZ', A.M., inzh.; SIBIRKO, A.N., inzh.

Choosing the optimum red line over difficult terrain using electronic digital computers. Trakhsp. stroi. 12 no.2:42-43 F '62. (MIRA 15:7)
(Electronic digital computers)

KIZ', P.Ye.; SOLOMYANSKIY, I.T.

Method of reconditioning the roller covers of the S-80 tractor. Mats. i izobr. predl. v stroi. no.79:28-29 '54. (MLRA 8:4)
(Tractors)

MENKOVSKIY, M.A.; GORDON, S.A.; NURMINSKIY, N.N.; ANTYKOV, A.P.; KIZAS, A.Yu.; USACHEVA, N.I.

Exchange of experience. Zav.lab. 28 no.11:1321 '62. (MIRA 15:11)

1. Moskovskiy gornyy institut (for Menkovskiy, Gordon, Nurminskiy).
2. Nauchnyy institut po udobreniyam i insektofigisidam imeni Ya.V.Samaylova (for Kizas, Usacheva).

(Chemistry, Analytical)

LAPINA, L.M.; KIZAS, A.Yu.; ORISHINA, I.A.

Ammonium ferri and aluminophosphates. Zhur. prikl. khim. 38 no.4: 736-745 Ap '65. (MIRA 18:6)

KIZATOV, P.

Focal point of work should be in the sections. MTO no.9:58 S '59. (MIRA 13:1)

1. Uchenyy sekretar' soveta pervichnoy organizatsii Nauchno-tekhnicheskogo obshchestva kombinata "Sikhali," Primorskiy kray.
(Maritime Territory--Nonferrous metals)

KIZATOV, P., uchenyy sekretar'

Results of active help. NTO 2 no.5:51-52 My '60. (MIRA 14:5)

1. Pervichnaya organizatsiya nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii kombinata "Sikhali", Primorskiy kray.
(Maritime Territory—Nonferrous metals)

MEZHENNIKOV, A., inzh.; KIZATOV, P., starshiy inzh. po tekhnicheskoy informatsii; GERASIMOV, Ye.; GORBAMEV, V.; KOSTENKO, P.

Exchange of experience. Izobr.i rats. no.5:22 My '62. (MIRA 15:5)

1. Byuro tekhnicheskoy informatsii Karbyuratornogo zavoda, Leningrad (for Mezhennikov). 2. Kombinat "Sikhali", pos. Tetyukhe, Primorskiy kray (for Kizatov). 3. Chlen prezidiuma oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov, g. Irkutsk (for Gerasimov). 4. Sekretar' oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov (for Kostenko).
(Technological innovations)

KIZNER, A. I. DECEASED

Chemistry see ILC

PROCESSES AND PROPERTIES INDEX

ca

27

New saponifier-catalyst for fats. II. I. A. [illegible] and M. N. [illegible]. *J. Chem. Ind.* (Russia) 6, 731-3(1929); cf. *C. A.* 23, 3361.—Further studies were made of the new saponifier; its use on a semi-factory scale gave very good results. The following 2 added, valuable advantages of the new saponifier have been discovered. (1) it does not introduce into the process anything that does not belong there, as it only consists of oxidized fatty acids, whereas naphtha sulfonic acids usually introduce a large quantity of mineral oil; (2) the crystals of the product obtained by splitting the fats by this saponifier are larger than those obtained in hydrolysis by acids or by the Petrov's contact saponifier; the large size of the crystals facilitates their pressing out. N. N.

METALLURGICAL LITERATURE CLASSIFICATION

ca

10

Production of benzaldehyde from benzyl chloride. P. Shorygin, I. Kizber and E. Smol'yaninova. *Zhur. Prikladnoi Khim.* 3, 731-6(1930); cf. *C. A.* 23, 4180.— Boiling of $PhCH_2Cl$ with aq. $Cu(NO_3)_2$ yields 60-8% BzH and 10% BzOH. The reaction consists of 3 phases: saponn. of $PhCH_2Cl$ with water, displacement of HNO_3 from $Cu(NO_3)_2$ by the HCl formed, and oxidation of the $PhCH_2OH$ produced by HNO_3. Free HNO_3 can be substituted for its salts. The presence of Al or Cu hinders the last reaction. $PhCH_2ONO_2$ is a by-product which on heating with water yields BzH and BzOH. In the absence of water it does not decomp. below 100°.

METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Ca

10

Production of terpinol hydrate. P. P. Shorygin, I. K. [illegible], N. K. [illegible] and V. P. Osipova. [illegible] Sbornik Statei 1939, [illegible]; Khim. Referat. Zhur. 1940, No. 4, 110.—A method has been developed for producing terpinol hydrate by the action of dil. HNO_3 on the pinene fraction. Turpentine contg. 85% of the pinene fraction was used as the starting material. The yield was above 100% of the theoretical. This indicated that terpinol hydrate is formed not only from pinene, but also from other terpenes contained in turpentine.

W. R. Henn

A10-51A METALLURGICAL LITERATURE CLASSIFICATION

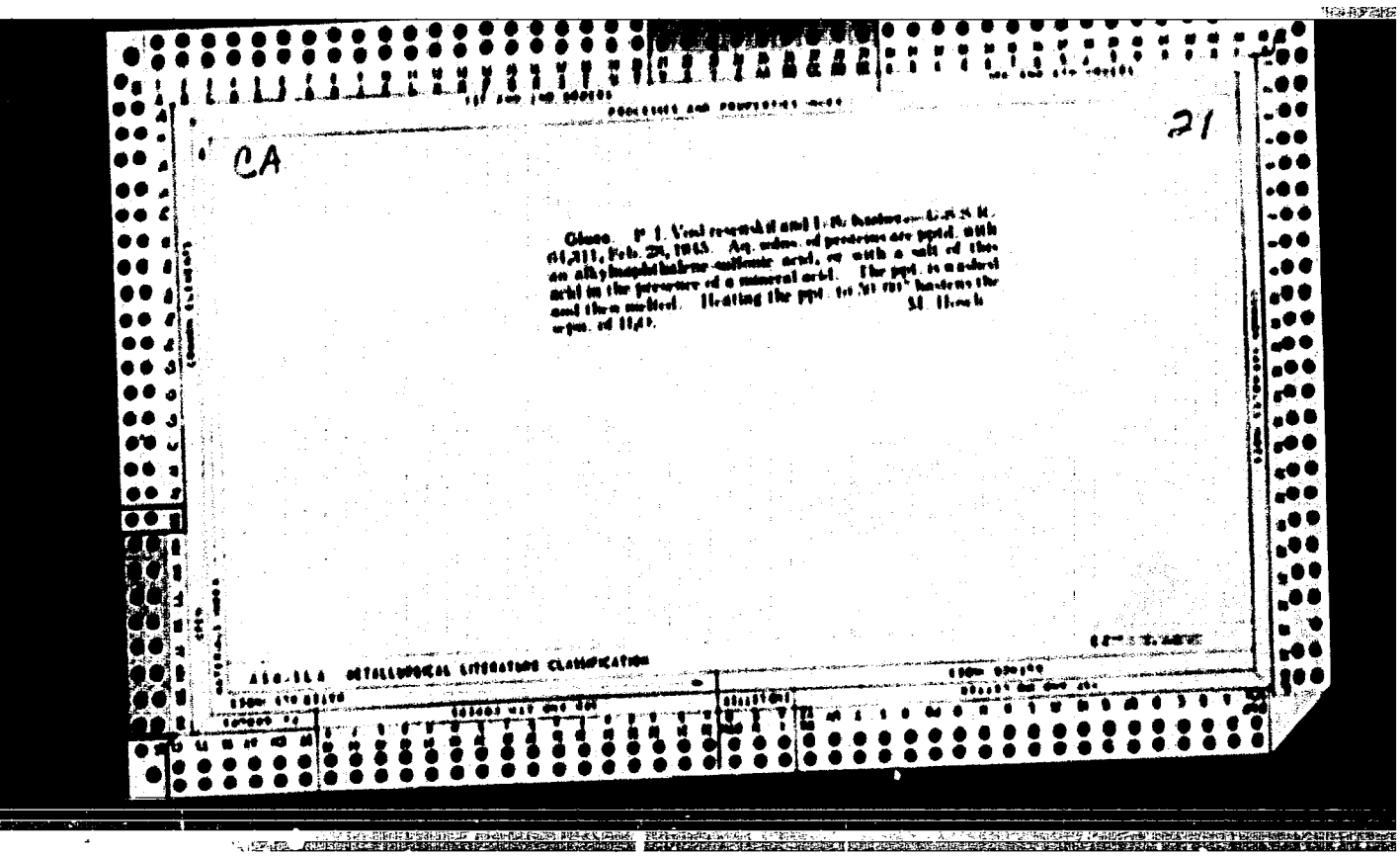
CA

10

Production of linalyl acetate. L. A. [illegible], V. I. [illegible] and [illegible] — [illegible] 1955, [illegible]; *Khim. Referat. Zhur.* 1956, No. 4, [illegible]; C. A. [illegible] — Coriander oil was used as the raw material for producing linalyl acetate. A [illegible], enriched to a [illegible] content of linalool was obtained from the oil. Linalool was acetylated with Ac_2O in the presence of [illegible], of the complex anhydride of H_3BO_3 and AcOH or of H_3PO_4 and AcOH. 6.0–6.2 kg. of linalyl acetate was obtained from 10 kg. of 70–80% linalool.

W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

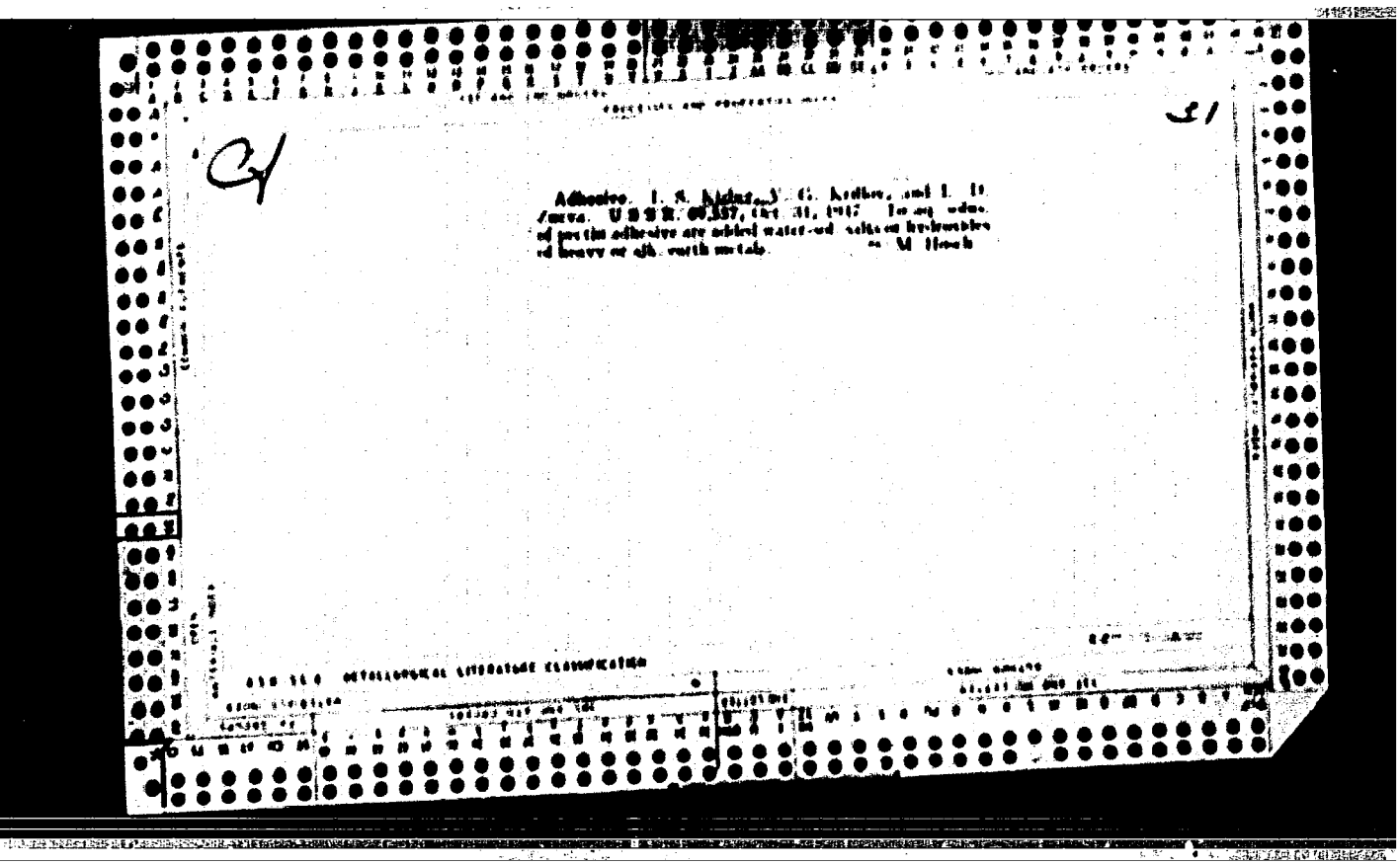
CA

Sterilization of canned foods in salt solutions. L. S. Kiglan and L. D. Zorov. U.S.S.R. 60,226, Apr. 31, 1941. In the sterilization of canned foods by heating in salt solns., corrosion of the can is prevented by adding approx. 0.1% (of the wt. of salt) of an oxidizing agent, e.g. $K_2Cr_2O_7$. M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Degradation of fats. I. S. Kishev. U.S.S.R. 67,602, Dec. 31, 1946. For hydrolytic degradation of fats is used an agent obtained by sulfonation and condensation of naphthalene with terpenes. M. Hosch

METALLURGICAL LITERATURE CLASSIFICATION



Kizber, S. A.

Distr: 4E2c(j)

Cement having a synthetic rubber base. S. A. Kizber, O. B. Kuutsova, and E. F. Kalmykova. U.S.S.R. 106,572, Aug. 26, 1957. A cement with superior adhesive properties is made by combining synthetic rubber with fused bone glue while heating and adding to this mixt. just before use benzaldehyde or benzyl salicylate, 0.1 part by wt. of the synthetic rubber. M. Hosch

BORTNYAK, Akim Nikolayevich [Bortniak, IA.M.]; KIZCHENKO, A.F., kand. istor.nauk, otv.red.; MYAKUSHKO, V.P. [M'iakushko, V.P.], red.

[Democratic Republic of Vietnam] Demokratychna Respublika V'ietnam. Kyiv, 1960. 39 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.3, no.7) (MIRA 13:7)

(Vietnam, North)

KIZCHENKO, Anatoliy Fedorovich, kand. istor. nauk; TSVETKOV, G.M. [TSvetkov, H.M.], kand. istor. nauk, otv. red.; TEPLYAKOVA, A.S., red.; MATVIICHUK, O.A., tekhn. red.

[U.S.S.R. aid to underdeveloped countries] Dopomoha SRSR slaborozvynutym krainam. Kyiv, 1961. 47 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.4, no.11) (MIRA 15:1)

(Underdeveloped areas)

KÝZEK, Milan

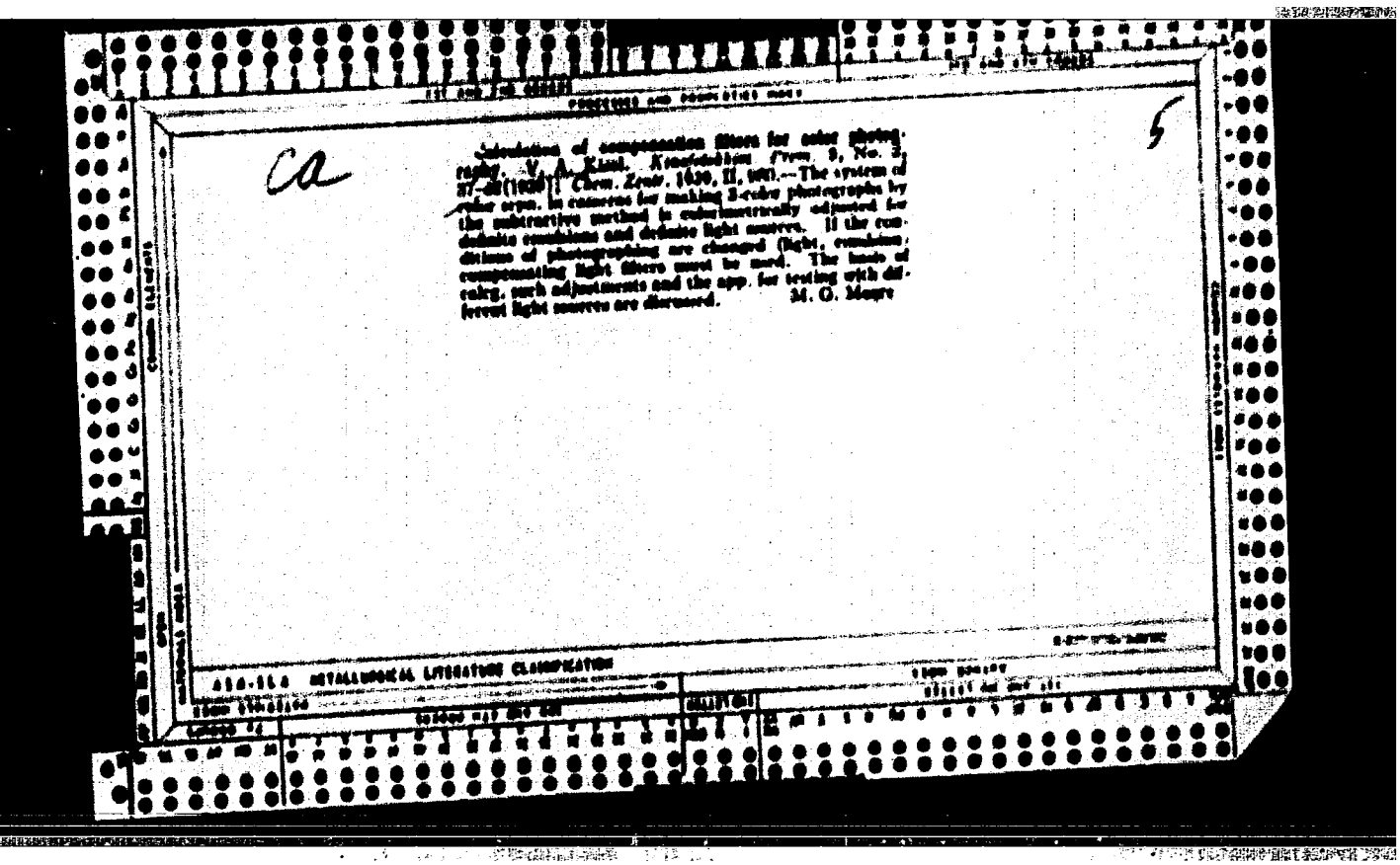
New automatic telephone central office in Kosice. Zel dop tech 11 no.5:148-149 '63.

KIZEL, K.-L. [Kiesel, K.-L.]

Measurement of electromotive forces between slag and liquid metal, and its application to the control of the open-heart process. Min delo 17 no.9:39-45 S '62.

Spectral sensitometry in the region of color cinematography. V. A. Kiori and M. M. Rosov. J. Tech. Phys. (U. S. S. R.) 8, 344-[illegible] (1938). The sensitometer used is described. The relation of the image density to the light intensity and the wave length is measured for 3 Russian and 3 American brands of emulsion. J. J. B.

METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

CA

3

Physical characteristics of high-intensity arcs. V. A. Kiselev. Bull. acad. sci. U. R. S. S., Sér. phys. 4, 139-40 (in English, 140-1)(1940).—The line spectrum of the arc, the degree of ionization, the configuration and the spectrum of the negative flame, depend only slightly upon the position of the carbons and the depth of the crater, but are strongly influenced by the magnitude of the current. The arc resistance and the spectral energy distribution depend upon the position of the carbons and the presence of a crater. Beginning with a definite position of the carbons and definite crater dimensions this dependence becomes very marked and corresponds to the setting-in of "high intensity effect." The spectral energy distribution which is characteristic for the "high intensity effect" sets in at larger values of the c. d. than that at which the degree of ionization becomes const. The "cathodic beam" is then formed in the negative flame. The character of the process during changes in the geometric position of the carbons confirms the assumption that the "high intensity effect" is connected with translation of the anodic spot to the core of the positive electrode and with the location of the discharge axis along the anode. Roksolana Gamow

METALLURGICAL LITERATURE CLASSIFICATION

CA

3

Physical characteristics of high-intensity arcs. II. V. A. Kiel. J. Tech. Phys. (U. S. S. R.) 10, 795-801 (1940); cf. C. A. 35, 1204.—The effects of K, Ca, Mg and Fe in the high-intensity arc are not qualitatively different from those in the ordinary arc. III. Ibid. 801-8.—The volt-ampere characteristics of high-intensity arcs are defined by the size of the crater and the relative position of electrodes. The line spectrum of the arc does not change qualitatively with the increasing current. Large increase of the relative intensity of the continuous background for the currents above 110 amp. was noticed. The appearance of "cathode beam," the beginning of the recrease of volt-ampere characteristics, formation of the crater and also the division into positive and negative regions of flame, occur at the same current, i. e., about 110 amp. Roksolana Osmova

KIZEL', V. A.

USSR/Physics - Surfaces of Fluids FD-623

Card 1/1 : Pub. 146-13/18

Author : Kizel', V. A.

Title : Studying the structure of the surface of fluids by the method of reflected light

Periodical : Zhur. eksp. i teor. fiz. 26, 228-233, February 1954

Abstract : Measures the elliptic polarization of light reflected from the surface of a fluid when incident at the Brewter angle. This study is conducted for several fluids. Gives curves for the dependence of the coefficient of ellipticity and the phase difference between the components in the reflected ray on the angle of incidence (very close to the Brewster angle). A comparison of the results is made with the existing theory and possible reasons for the divergences are indicated.

Institution : Uzbek State University

Submitted : 5 July 1953

KIZEL', V. A.

"Results of a Study of the Structure of the Surface of a Liquid by the Method of Measurement According to the Degree of Ellipticity of Polarization of the Light Reflected From the Surface", a paper presented at the second conference on the liquid State of Matter, Kiev, 30 May to 3 June 1955, Usp. Fiz. Nauk, April 1955

USSR/Physics, Surface Structure, Liquids Kizel, V.A. FD-3342

Card 1/1 Pub. 146 - 14/28

Author : Kizel, V. A.

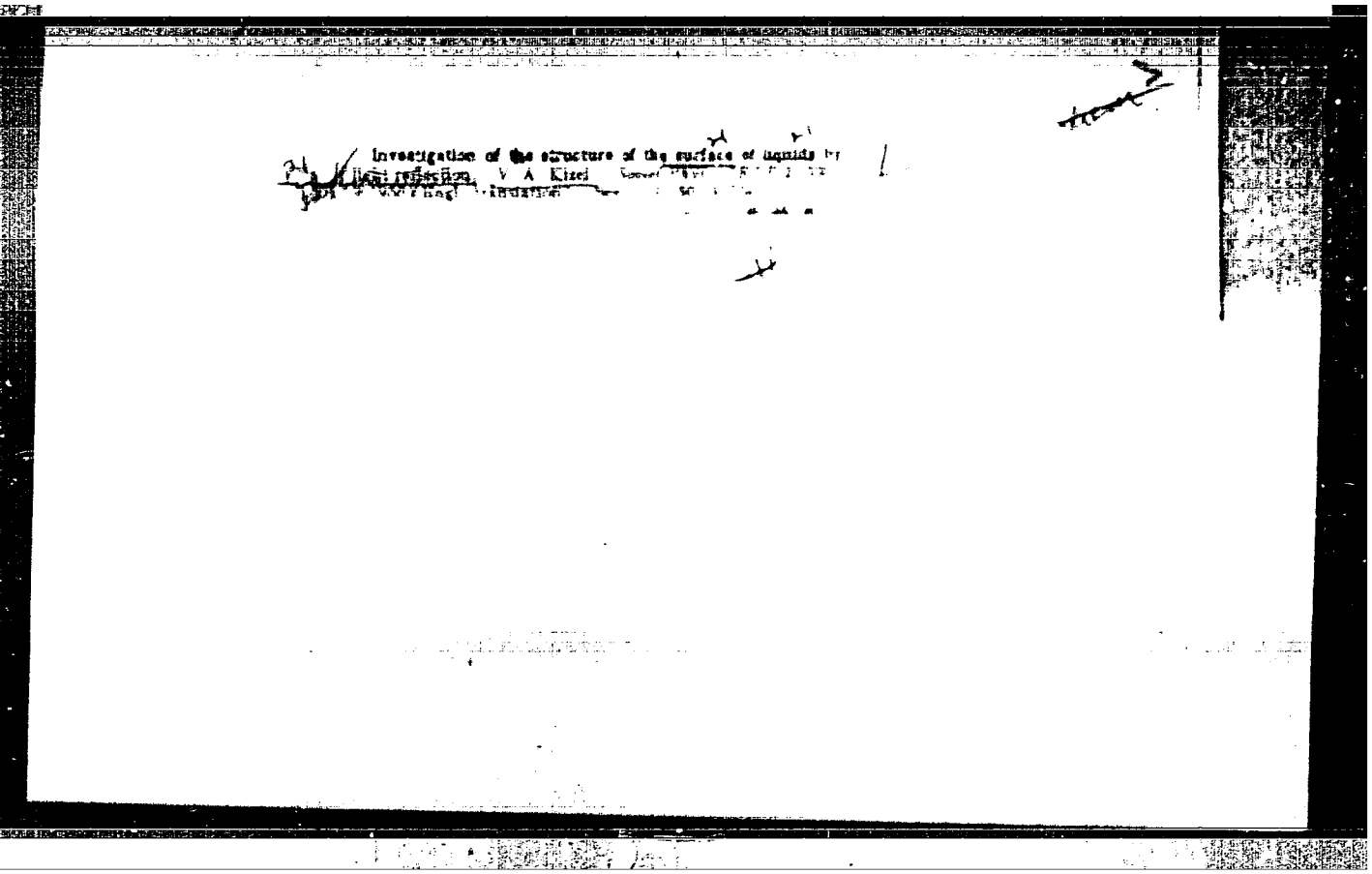
Title : Study of surface structure of a liquid by means of reflected light

Periodical : Zhur. Eksp. i Teor. Fiz., 29, No 5, 658-668, 1955

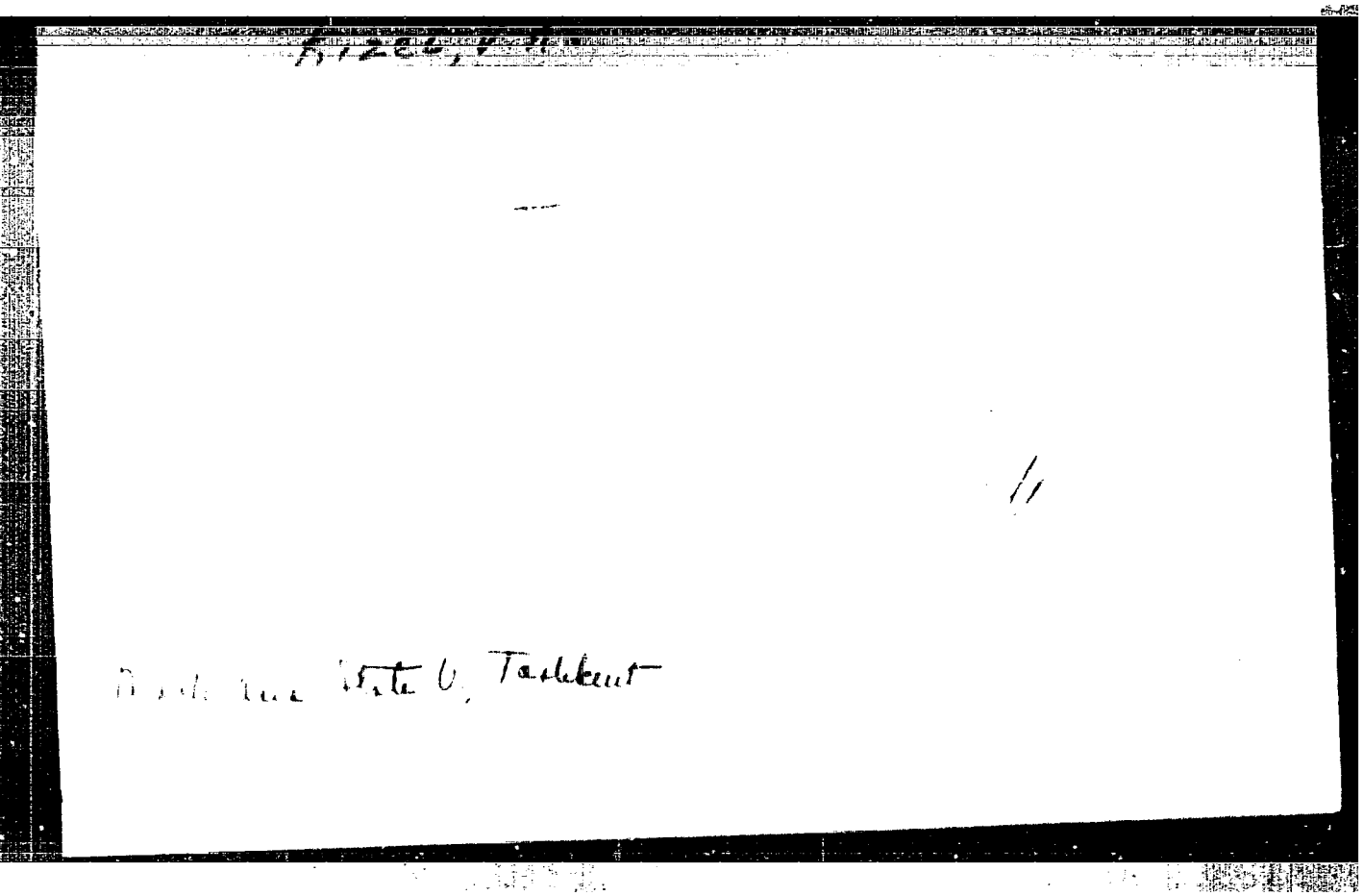
Abstract : Sixty liquids were studied by measuring the elliptical polarization of light reflected from the liquid surface and incident at Bruger's angle. The relation of this effect to temperature and to short orientation order was investigated. The structural change of the surface near the solidifying point and its relation to overcooling was established. Indebted for cooperation to A. F. Stepanov, G. D. Pridatko, A. N. Mirumyants and Prof. I. P. Tsukervanik.

Institution : Uzbek State University

Submitted : July 2, 1954



Investigation of the structure of the surface of liquids by
V A Kizel



KIZEL, V.A.

PRIKHOT'KO, A.F.

24(7) 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.: Gazer, 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

Card 5/30

KIZEL, V. A.

Reflection of light from the surface of liquids and its connection with the process of crystallization. V. A. Kizel and A. F. Bibikov. *Optika i Spektroskopiya* 2, [illegible] (1957).—The elliptic coeffs. (ρ) of p-, o-, and m-xylene, at 17° 141 × 10^{-3}, 137 × 10^{-3}, and 143 × 10^{-3}, resp., sharply increased near the temps corresponding to the m.p. of these substances. Analogous results were obtained with p- and o-chloronitrobenzene. [illegible] nitrophenol, chloranil, and [illegible] methane, $SnCl_4$, and water. Though the [illegible] of ρ as T varied for each substance [illegible] definite change in slope during [illegible] m.p., this fact indicated a relation between the structure of the liquid surface, its vol., and the crystn. process. 25 references.

Central Asia University im. V. I. Lenin

KIZEL', V.A.; STEPANOV, A.F.

Light reflection technique for studying the surface structure of liquid. Trudy SAGU no.91:43-54 '57. (MIRA 11:2)
(Surface tension) (Reflection (Optics))

SOV/51-5-4-20/21

AUTHORS: Kizel', V.A. and Safronova, U.I.

TITLE: Luminescence of Dyes in Viscous and Solid Solutions (Lyuminestsentsiya krasiteley v vyazkikh i tverdykh rastvorakh)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 4, pp 482-483 (USSR)

ABSTRACT: When a molecule is excited its luminescence may be diminished or prevented by radiationless transfer of energy to internal rotation, torsional deformation, etc. Such a transfer of energy is made more difficult or impossible on increase of viscosity of solutions. The present paper reports investigations of the dependence of the yield (Fig 1) and spectral composition (Figs 2, 3) of luminescence on viscosity for 12 dyes: (1) fuchsin; (2) quinoline yellow; (3) acridine yellow; (4) auramine; (5) chrysoidine; (6) methyl orange; (7) Congo red; (8) light-fast yellow; (9) benzoazurin; (10) 3,3-diethylthiacyanine-p-tolusulphonate; (11) pinacyanol; (12) 3,3-diethylthiadicarbocyanine iodide. Measurements were made using the method described in Ref 2, but a photoelectric spectrophotometer was used in the present case. Fig 1 shows that the luminescence yield falls with decrease of viscosity for all dyes.

Card 1/2

Luminescence of Dyes in Viscous and Solid Solutions SOV/51-5-4-20/21

The curve for fuchsin (Fig 1, curve 1) agrees with the results reported in Refs 2, 3. The fall of the luminescence yield with decrease of viscosity is accompanied in all dyes by displacement of the luminescent maximum towards longer wavelengths (Figs 2, 3). The magnitude of this displacement is roughly proportional to the rate of fall of the luminescent yield. The authors thank I.I. Levkoyev and E.S. Levin for supply of the dyes used, and M.D. Galanin for discussions of this work. There are 3 figures and 7 Soviet references.

ASSOCIATION: Moskovskiy fiziko-tekhnicheskiy institut (Moscow Physico-Technical Institute)

SUBMITTED: April 23, 1958.

Card 2/2 1. Dyes--Luminescence 2. Luminescence--Measurement 3. Spectrophotometers --Applications

24(4), 24(7) SOV/51-7-1-9/27

AUTHORS: Kizel', V.A., and Rubinov, V.M.

TITLE: Optical Properties of Concentrated Solutions and Melts. I. (Opticheskiye svoystva kontsentrirovannykh rastvorov i rasplavov. I.)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, Nr 1, pp 62-70 (USSR)

ABSTRACT: The refractive index n and the absorption coefficient χ of concentrated solutions of nitrosodimethylaniline, fuchsin, crystal violet, rhodamine 6Zh, methylene blue and of bromine were found by the selective reflection method. The solvent used was aniline and measurements were made on solutions with a wide range of concentrations. A monochromator ZMR-2 with automatic recording was employed. An incandescent lamp was used as the light source and photo-elements TsV and STsV were used as the receivers. A special cell was constructed for these experiments. It is shown in Fig 1, where A is the incident beam, B is the light reflected from the front surface of a wedge-shaped glass wall 1, C is the light reflected from a solution and recorded by a monochromator 3, D is the light transmitted by the solution and 2 is a mirror. The results of measurements are shown in Figs 2-7 in the form of plots of the reflection coefficient R against frequency. Figs 10 and 11 show absorption by aqueous solutions of rhodamine 6Zh, while

Card 1/2

Optical Properties of Concentrated Solutions and Melts. I.

Fig 12 shows absorption by aniline solutions of the same dye. Comparison of the experimental curves with those calculated using the classical theory of dispersion and Davydov's quantum theory (Ref 1) showed clearly the superiority of the Davydov theory. It was found also that the oscillator strengths of dye solutions decrease with concentration when intermolecular distances are of the order of 10-50 Å; it is suggested that this is due to coupling between absorption oscillators. There are 12 figures, 2 tables and 15 references, 11 of which are Soviet, 3 English and 1 German.

SUBMITTED: July 14, 1958

Card 2/2

24,3300 (1051,1106,1227)

S/051/61/010/004/007/007
E032/E314

AUTHORS: Kizel', V.A. and Permogorov, V.I.

TITLE: Photo-electric Spectropolarimeter

PERIODICAL: Optika i spektroskopiya, 1961, Vol. 10, No. 4, pp. 541 - 544

TEXT: The instrument described in the present paper was designed to measure the magnitude and dispersion of natural optical activity and magnetic rotation although it can be used for other polarisation measurements. A block diagram of the apparatus is shown in the figure. The light sources are a strip lamp or the ДКСШ (DKSSh) krypton lamp (depending on the spectral region under investigation). The apparatus incorporates the УМ-2 (UM-2) monochromator and the polariser and analyser are in the form of Glan prisms (15 x 15 mm). The beam is carefully collimated by slits, the beam diameter being 8 mm. The image of the exit slit is projected onto the cathode of a photomultiplier. Light leaving the polariser is modulated by a Faraday cell working at a frequency of ν = 485 c.p.s. If the specimen under

Card 1/7

Photo-electric ....

investigation does not rotate the plane of polarisation, then light transmitted through the crossed analyser-polariser system is modulated at a frequency of 2ν. In the presence of rotation an off-balance signal having a frequency ν is present. The latter is detected by a system consisting of a photomultiplier (ФЭУ-29 (FEU-29)), a narrow-band amplifier tuned to the frequency ν (bandwidth 15 c.p.s.), a synchronous detector and an output micro-ammeter. In this way, photomultiplier and amplifier noise can be considerably reduced. Interference is prevented by screening the electrical circuits and the photomultiplier by iron and copper screens. The above frequency is also convenient from the point of view of reducing mains interference. The measuring procedure consists of reducing the reading on the output micro-ammeter to a minimum by rotating the polariser (the angle of the polariser can be read to within 0.001°). The analyser remains fixed in order to avoid changes in the sensitivity of the photocathode. The amplitude of the oscillations in the plane of polarisation introduced

by the Faraday cell is determined as follows. With the polariser and analyser in the crossed position the transmitted light intensity is given by

$$I_m = I_s + I_o \sin^2 a$$

where a is the angle of rotation of the modulator,
I_o is the intensity of light incident on the analyser and
I_s is the intensity of light scattered in the analyser and the preceding component.

The scattered intensity is then assumed to be given by

$$I_s = aI_o + bI_m$$

and hence the off-balance signal per unit angle of rdation is given by

$$S = \frac{\Delta I_m}{\Delta a} = \frac{I_o}{1 - b} \sin 2a \ .$$

Card 3/7

Photo-electric ....

Experiments showed that the main source of noise in the detecting apparatus is the photomultiplier. It may therefore be assumed that

$$S_n = cI_m^2 \quad .$$

The signal-to-noise ratio is therefore characterised by the quantity

$$A = \frac{S}{S_n} = \frac{\sin 2\alpha}{(a + \sin^2\alpha)^2} \cdot \frac{1 - b}{I_o c} \quad .$$

From this expression it is found that when $a = 0,01$, $\alpha_{max} \sim 3^\circ$, while when $A = 0.1$ $\alpha_{max} \sim 15^\circ$ and $A_{0,01} = 2A_{0,1}$. It follows that the scattered light must be reduced as far as possible. This design can therefore be used to choose the optimum conditions for each case by changing the current in the cell. From this point of view it

Card 4/7

Photo-electric ....

is superior to that described by Gillham (Ref. 3). The cell was in the form of a thin-walled tube filled with α-bromo-naphthalene having a large Verdet constant. It is exceedingly important for the windows of the container to be non-birefringent. The accuracy is ± 0.003 deg. This accuracy can be maintained for specimen densities up to 0.8.
Acknowledgments to G.I. Gorchakov and V.I. Letokhov, who took part in the development of the device; Yu.V. Denisov is thanked for directing the design of the oscillator.
There are 1 figure and 5 non-Soviet references.

SUBMITTED: October 31, 1960

X

Photo-electric ....

Figure: Block 1 - modulator; Block 2 - recording apparatus; Block 3 - supplies for the recording apparatus; Block 4 - Faraday coil; Block 5 - light source. ЛН, ДК - strip and Krypton lamps, respectively; M - monochromator; $П_1$ and $П_2$ - lenses; П, А - polariser and analyser; О - specimen; ФЭУ - photomultiplier. 1 - pre-amplifier; 2 - narrow-band amplifier; 3 - synchronous detector; 4 - vacuum-tube micro-ammeter; 5, 6, 7, 8 - supplies; 9 - power amplifier of the modulator; 10 - pre-amplifier; 11 - master oscillator; 12 - supplies; 13 - phase-shifter; 14 - supplies for the lamp. U_1 - rough zero indicator; U_2 - fine zero indicator; U_3 - magnet current; U_4 - modulation amplitude.

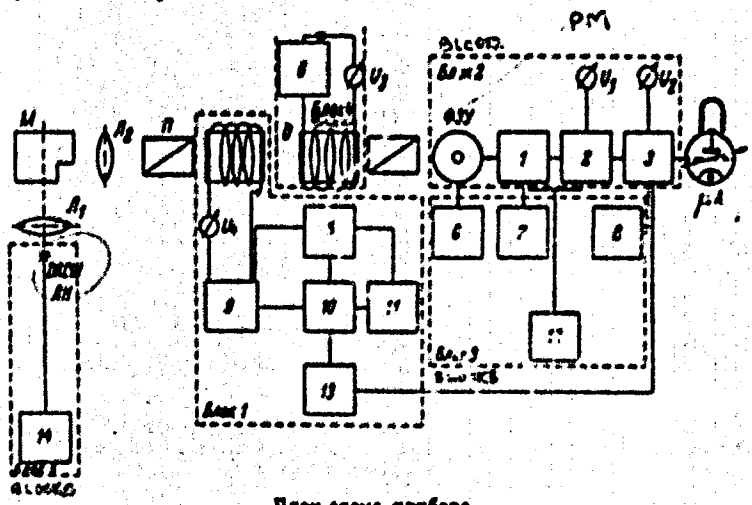
Card 6/7

20729

S/051/61/010/004/007/007
E032/E314

Photo-electric ....

Figure:



Card 7/7

Блок-схема прибора.

RUBINOV, V.M.; KIZEL', V.A.

Note on the correlation of processes of the inductive interaction of excited and nonexcited molecules. Izv. AN Uz. SSR. Ser. fiz.-mat. nauk no.4:63-66 '61. (MIRA 14:9)

1. Nauchno-issledovatelskiy institut sudebnoy ekspertizy Yuridicheskogo komiteta Soveta Ministrov Uzbekskoy SSR.
(Molecular dynamics)

RUBINOV, V.M.; KIZEL', V.A.

Absorption spectra of solid films of dyes. Izv. AN Uz. SSR. Ser. fiz.-mat. nauk no.4:96-98 '61. (MIRA 14:9)

1. Nauchno-issledovatel'skiy institut sudebnoy ekspertizy Yuridicheskogo komiteta Soveta Ministrov Uzbekskoy SSR.
(Dyes and dyeing) (Absorption spectra)

RUBINOV, V.M.; KIZEL', V.A.

Optical properties of concentrated solutions, melts, and films of dyes. Part 2. Opt. i spektr. 15 no.4:512-521 O '63.
(MIRA 16:11)

KIZEL', V.A.; KRASILOV, Yu.I.; SHAMRAYEV, V.N.

Achromatic "1/4λ" appliance. Opt. i spektr. 17 no.3:461-463 S '64.
(MIRA 17:10)

L 14737-65 EEC(b)-2/EWT(l)/EWT(m)/EWP(b)/T/EWP(t) Pq-4 ASD/ASD(a)-5/
AFWL/AFETR/ESD(gs)/ESD(t)/IJP(c) RM/WH

ACCESSION NR: AP5000545 S/0051/64/017/006/0863/0870

AUTHORS: Kizel', V. A.; Krasilov, Yu. I.; Shamrayev, V. N. B

TITLE: Investigations of the optical activity arising in the crystalline state. I.

SOURCE: Optika i spektroskopiya, v. 17, no. 6, 1964, 863-870

TOPIC TAGS: optical activity, crystalline state, polarization, second order phase transition

ABSTRACT: In view of the scarcity of experimental material on optical activity of crystals, the authors report on measurements of the dispersion of optical activity of the hitherto investigated crystals of ethylenediamine sulfate, sodium bromate, β-quartz, and benzyl. Measurements of the dispersion of rotation were made by two methods which supplemented and checked each other -- photoelectrically (with a specially developed spectropolarimeter) and photo-

Card 1/3

L 14737-65
ACCESSION NR: AP5000545

graphically. The spectropolarimeter, which was described elsewhere (Opt. i spektr. v. 10, 541, 1961), was modified to cover the range from 2300 Å to 2 μ. The optical system of the photographic polarimeter is shown in Fig. 1 of the enclosure. The spectral instruments were either DFS-3, ISP-51 with UP-85 attachment, or ISP-30, depending on the wavelength. The accuracies of the photoelectric and photographic methods were 0.5 and 3% respectively. The measurements were made at liquid-nitrogen temperature and at 700°, and iron lines were used as standards. Other details of the procedure are described. The measurement data were compared with the theorstical formulas and the agreement ranged from 1 to 4%, depending on the substance. The behavior of the optical activity during a second-order phase transition was also examined, but no conclusive data were obtained. Orig. art. has: 5 figures and 10 formulas.

ASSOCIATION: None

SUBMITTED: 10Nov63 ENCL: 01

SUB CODE: OP NR REF SOV: 009 OTHER: 010

2/3

L 14737-65

ACCESSION NR: AP5000545 ENCLOSURE: 01

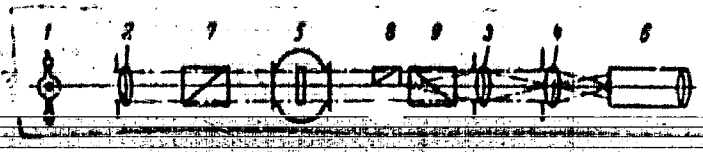


Fig. 1. Optical diagram of photographic polarimeter

1 - Lamp, 2, 3, 4 - achromatic lenses, 5 - Dewar with crystal, 6 - spectrograph, 7 - polarizer, 8 - Glan prism, 9 - analyzer

Card 3/3

PEREKALINA, Z.B.; SHNYREV, G.D.; MIRENSKIY, A.V.; PERMOGOROV, V.I.; KIZEL', V.A.

Photoelectric spectropolarimeter for measuring the rotation of the light polarization plane in crystals. Kristallografiia 10 no.2:270-272 Mr-Ap '65. (MIRA 18:7)

1. Institut kristallografii AN SSSR.

L 21172-65 EWT(1)/T/EEC(b)-2 IJP(c)/SSD(c)/ASD(a)-5/AFWD(t)

ACCESSION NR: AP5003032 S/0051/65/018/001/0123/0129

AUTHOR: Kizel', V. A.; Krasilov, Yu. I.; Shamraev, V. N. 13

TITLE: Investigation of optical activity produced in the crystalline state. II. Sodium-uranyl-acetate

SOURCE: Optika i spektroskopiya, v. 18, no. 1, 1965, 123-129

TOPIC TAGS: optical activity, crystalline state, circular dichroism, optical dispersion, absorption band, dispersion curve, temperature variation, sodium uranyl acetate

ABSTRACT: The authors have measured the dispersion of the optical activity of sodium uranyl acetate and its circular dichroism simultaneously with some investigations of its absorption spectrum. The technique of measuring the dispersion of the optical activity and the construction of the cryostats employed were described in the first part of the article (Opt. i spektr. v. 17, 863, 1964). The setup for measuring circular dichroism is illustrated in Fig. 1 of the enclosure. Some new bands were observed and the dichroic bands were found to be asymmetrical. The dichroic bands shift and deform with variation of the temperature. A detailed

Card 1/2

L 21172-65
ACCESSION NR: AP5003032

study of the behavior of the 4,732 Å band with variation of temperature has shown that the maximum wavelength and the half width of the band vary with temperature linearly for temperatures above 120--130K. At lower temperatures the variation is very weak. The dispersion of the optical activity was investigated in greatest detail for the 4,732 Å band. The dispterson curve is asymmetrical and also is noticeably shifted and deformed with variation of temperature. The measurements have shown that an appreciable circular dichroism is retained for the 4,732 Å band even at room temperature. An appreciable increase in the dichroism begins below 130--150K. "We are grateful to N. D. Zhevandrov and V. M. Agranovich for useful discussions." Orig. art. has: 6 figures, 3 formulas, and 1 table.

ASSOCIATION: None

SUBMITTED: 10Nov63 ENCL: 01 SUB CODE: OP

NR REF SOV: 011 OTHER: 007

Card 2/3

L 11306-66 EWT(l)/EWT(l)/EWT(m)/T IMP(c) RM

ACC NR: AR6016195 SOURCE CODE: UR/0058/65/000/011/D021/D021

AUTHOR: Rubanov, V. M.; Kizel', V. A. 73 B

TITLE: Spectroscopic manifestations of intermolecular interactions in concentrated solutions of dyes and of the change of the emission and absorption oscillator strengths

SOURCE: Ref. zh. Fizika, Abs. 11D212

REF SOURCE: Tr. Komis. po spektroskopii, AN SSSR, t. 3, vyp. 1, 1964, 297-301

TOPIC TAGS: molecular interaction, dye chemical, oscillator strength, luminescence, light absorption, light emission, absorption spectrum, luminescence spectrum

ABSTRACT: The authors investigated optical absorption and luminescence of a series of substances in solutions and in films. The oscillator strengths f were calculated with account of the effective field and the randomness of the distribution of the oscillators. A decrease of f_{abs} in the region of intermolecular distances 5 - 30 Å is established. A correlation is observed between the effects of the decrease of f_{abs} and f_{emit} of the substance, and also the overlap of the absorption and luminescence spectra. The absence of association in the solutions has made it possible to ascribe the observed effect to the influence of the inductive-resonant intermolecular interaction. [Translation of abstract]

SUB CODE: 20, 07/

Card 1/1 ddy

ACC NR: AP6013360 SOURCE CODE: UR/0363/66/002/004/0693/0701

AUTHOR: Denisov, Yu. V.; Dzhurinskiy, B. F.; Kizel', V. A.

ORG: Moscow Physicotechnical Institute (Moskovskiy fiziko-tekhnicheskiy institut); Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences SSSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: Structure of glasses of the Na_2O–B_2O_3 system activated with rare earths. Europium.

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 4, 1966, 693-701

TOPIC TAGS: borate glass, europium compound, luminescence spectrum

ABSTRACT: The emission and absorption spectra of glasses of the Na_2O–B_2O_3–Eu_2O_3 system (prepared from Na_2CO_3, H_3BO_3, and Eu_2O_3) were studied at room and liquid nitrogen temperatures using apparatus of high dispersion and sensitivity. The absorption spectra undergo little change with temperature. The form of the luminescence spectra depends on the frequency of the exciting light, not on the europium concentration. It is postulated that two types of luminescence centers of unlike coordination exist. The duration of luminescence was measured for certain lines. As the Na_2O content rises, the transfer of energy to the lattice increases. The strongest interactions between an Eu^{3+} ion and its surroundings take place at the highest and the lowest Na_2O content, at which the homogeneity of the field around the ion is greatest. The asymmetry of the field increases with the Na_2O content. The authors are sincerely grateful to S. L. Mandel'shtam for providing the facilities for the work, to M. D. Galanin for useful discussions

Card 1/2 UDC 546.33+546.273

ACC NR: AP6013350

and to N. Kunavin for assistance in the measurements. Orig. art. has: 7 figures and 1 table.

SUB CODE: 07,11 / SUBM DATE: 18Dec65 / ORIG REF: 006 / OTH REF: 006

Card 2/2

KIZEL'MAN, Z. D.

proserin

Kizel'man, Z. D. - "Treating accomodative astenopia with 'proserin'", Uchon. zapiski (Ukr. nauch.-issled. in-t oftalmologii im. prof. Girshmana), Vol. 7, 1948, p. 44-46.

SO: U-3042, 11 March 53, (letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

KIZELMAN, Z. D

EXCERPTA MEDICA Sec.12 Vol.10/12 Ophthalmology Dec 56

1866. KIZELMAN Z.D. *On the tonometry of the central artery of the retina in some cortical inhibitory processes (Russian text) Z.NEVROPAT.PSIKHIAT.(Mosk.) 1955, 55/11 (812-814)

Calibrometry of the retinal vessels, tonometry of its arteries with simultaneous measuring of blood pressure make an ideal method for a timely diagnosis of the increased intracranial blood pressure. In cases of schizophrenia, especially in its catatonic form, a marked hypotension was observed in the diastolic and systolic pressures of the central artery. Asymmetry in hypotension was observed. This method may be applied in psychiatry for ascertaining the condition of cerebral blood circulation. There is no direct relationship between the general blood pressure and the blood pressures of the central artery of the retina.

Hadlik - Brno (VIII, 12)

UKR, Sci Res. INST Eye Diseases im GIRSHMAN

KIZEL'MAN, Z.D., kandidat meditsinskikh nauk

Modification of the caliber of retinal vessels in cerebral tumors. Vest.oft. 69 no.3:11-14 My-Je '56. (MLRA 9:8)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta glaznykh bolezney imeni prof. L.L.Girshmana (dir. chlen-korrespondent AMN SSSR prof. I.I.Merkulov)

(BRAIN, neoplasms,
retinal vessels in, changes of caliber (Rus))
(RETINA, in various diseases,
cancer of brain, changes of vasc. caliber (Rus))

KIZIL'MAN, Z.D., kand.med.nauk

Treatment of acute disorders of the arterioretinal blood circulation with acetylcholine. Report no.1. Oft.zhur. 12 no.5: 266-270 '57. (MIRA 13:6)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta glaznykh bolezney imeni prof. Girshmana (direktor - chlen-korrespondent AMN SSSR prof. ILI. Merkulov).
(RETINA--DISEASES) (CHOLINE)

KIZEL'MAN, Z.D., kand.med.nauk

Device for graduating and taring the ophthalmodynamometer.
Oft.zhur. 13 no.4:214-215 '58 (MIRA 11:8)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta glaznykh bolezney im. L.L. Girshmana (direktor - chlen-korrespondent AMN SSSR prof. I.I. Merkulov).
(EYE, INSTRUMENTS AND APPARATUS FOR)

KIZEL'MAN, Z.D., kand.med.nauk

Retinal blood supply following exclusion of the carotid arteries. (MIRA 14:9)
Vop.neirooft. 8:139-175 '61.
(RETINA--BLOOD SUPPLY) (CAROTID ARTERY--SURGERY)

KIZELOV, F.F.; LYKOV, Z.N., prof., red.

[Color and functional painting in industry] Tsvet i funktsional'naia okraska v promyshlennosti. Moskva, Mosk. vysshee khudozhestvenno-promyshl. uchilishche, 1964. 17 p. (MIRA 18:9)

KIZILOV, Mikhail Fedorovich; IVANOV-SKOBLIKOV, P.V., inzh., red.; KUBENVA, M.M., tekhn.red.

[Preparing concrete mixes] Proektirovanie sostava betona. Leningrad, Leningr.dom nauchno-tekhn.propagandy. Pt.1. 1958. 34 p. Pt.2. 1958. 29 p. (MIRA 12:8)
(Concrete)

GORYACHEVA, Inna Aleksandrovna, kand. tekhn. nauk; SAPOZHNIKOV, Mikhail Mikhaylovich, kand. tekhn. nauk; KIZEVOV, M.F., red.

[Use of plastics in sanitary engineering] Primenenie plastmass v sanitarnoi tekhnike. Leningrad, 1963. 32 p. (MIRA 17:7)

KISELOV, Mikhail Fedorovich; [illegible], M.I., red.

[Anticorrosion coatings for floors] Antikorrozionnye pokrytiia polov. Leningrad, 1965. 36 p. (MIRA 18:10)

Ca

9

Polishing of metal samples for metallographic analysis. V. Ya. Kind'sheim. *Zavodskaya Lab.* 5, 334-30(1936).— Preliminary [illegible] polishing a metal sample is burnished with Cr_2O_3 wetted with benzene. The Cr_2O_3 is prepd. by heating a mixt. of $K_2Cr_2O_7$ with S at 1800° for a coarse paste and at 1000° for a fine paste for 3-5 hrs. The grinding is best effected upon Pyrex plates.

Chas. Blanc

METALLURGICAL LITERATURE CLASSIFICATION