PLYUSHCHEV, V.Ye.; VARFOLOMEYEV, M.P.

Lanthanum perrhenates. Zhur. neorg. khim. 10 no.1,102-102 Ja '65. (MIRA 18:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova. Submitted Dec. 18, 1963.

L 12707-63 EWP(q)/EWT(m)/BDS AFFTC JD/JG
ACCESSION NR: AP3000303 S/0020/63/150/001/0105/0108

55
54

AUTHOR: Plyushchev, V. Ye.; Amosov, V. M.; Varfolomeyev, M. B.

TITLE: The synthesis and several properties of lower crystallohydrates of yttrium, lanthanum and lanthanoid perrhenates

27

SOURCE: AN SSSR. Doklady, v. 150, no. 1, 1963, 105-108

TOPIC TAGS: yttrium, lanthanum, lanthanoid perrhenate, lower crystallohydrate

ABSTRACT: The existence of anhydrous perrhenates has not been previously established. This article reports a method of preparation of anhydrous perrhenates of the rare earth elements by dehydration of their lower crystallohydrates. The obtained perrhenates of yttrium, lanthanum and lanthanoids are soluble in water in considerable proportions and thus the described synthesis can utilize the starting materials more effectively with a product yield of 95%. The synthesized perrhenates contain a minimum amount of water of crystallization. The rare earth perrhenates obtained at 75-80C are non-hygroscopic, fine crystals which readily dissolve in water, alcohol and acetone, and are stable between the temperature interval of 200-550C. Orig. art. has: 1 figure and 1 table.

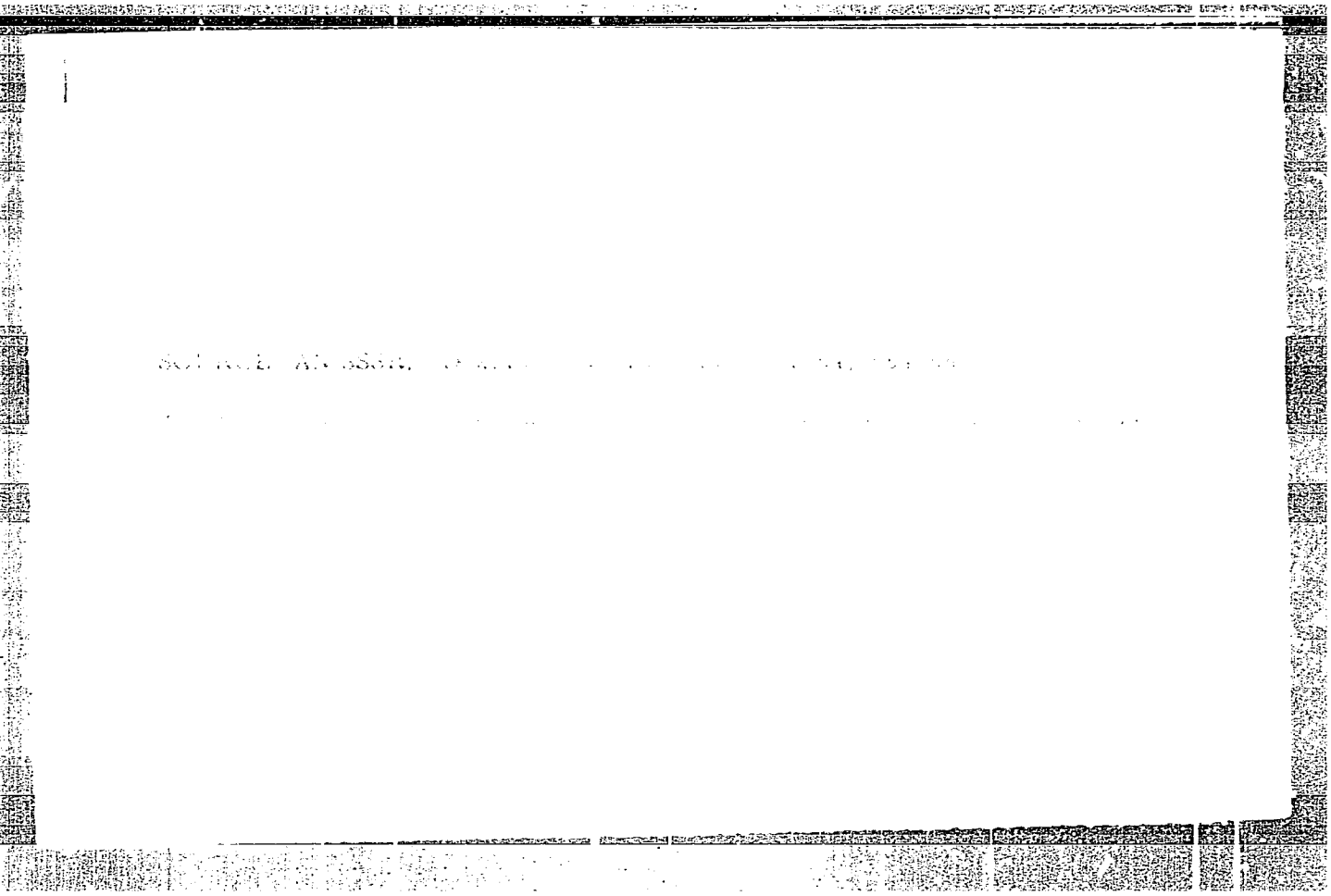
ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V.

Card 1/2

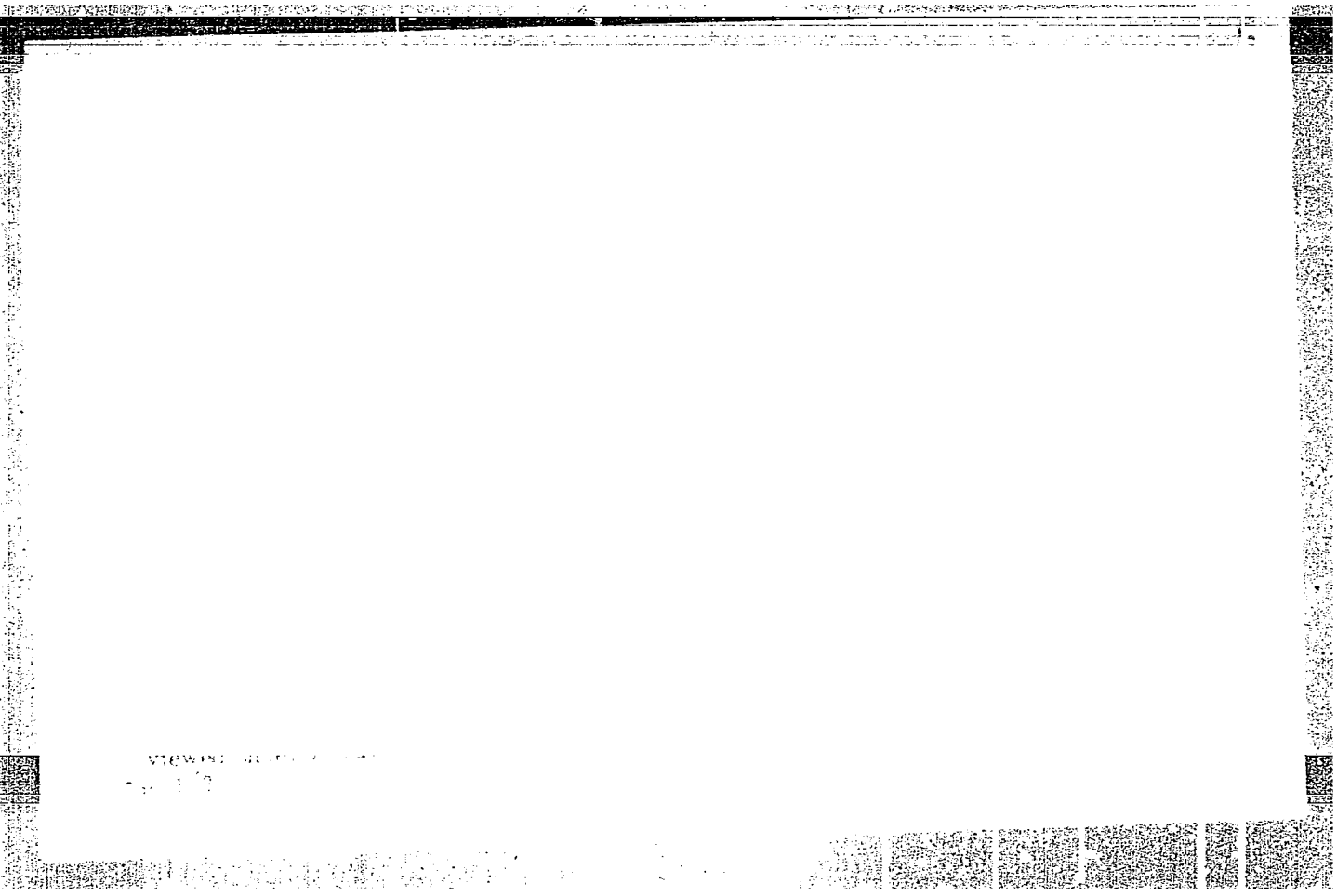
PLYUSHCHEV, V.Ye.; VARFOLOMEYEV, M.B.

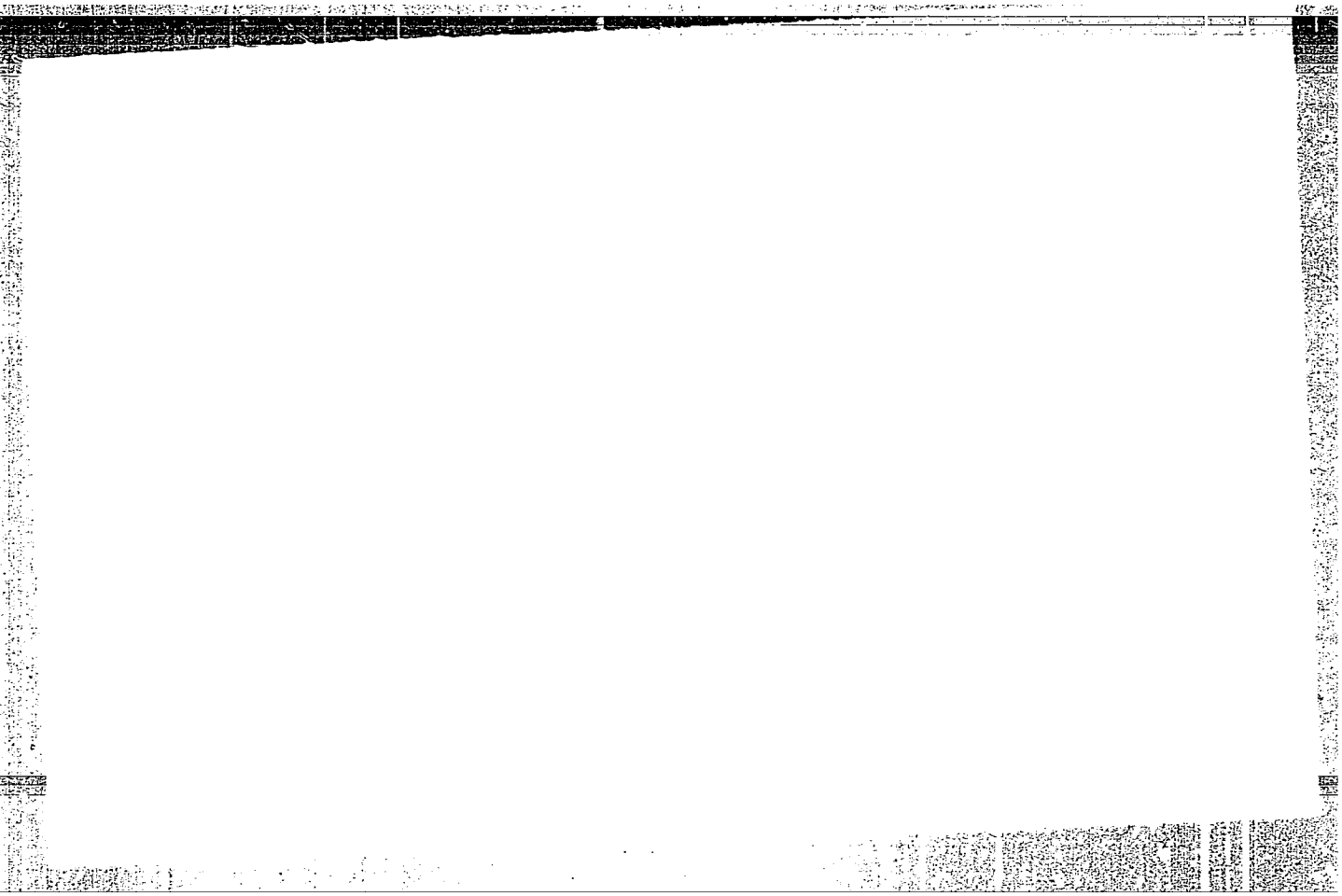
Yttrium perrhenates. Zhur. neorg. khim. 10 no.1:109-114 Ja '65. (MIRA 18:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova. Submitted April 8, 1964.



Card 2/2





APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001858610016-5"

PLYUSHCHEV, V.Ye.; VARFOLOMEYEV, M.B.

Cerium perchenate and its crystal hydrates. Izv. vys. ucheb. zav.; khim. i khim. tekh. 8 no.3:361-366 '65. (MIRA 18:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova, kafedra khimii i tekhnologii redkikh i rasseyannykh elementov.

ACC NR: AP6019045 (A) SOURCE CODE: UR/0078/66/011/002/0294/0298

AUTHOR: Plyushchev, V. Ye.; Varfolomeyev, M. B.

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovsky institut tonkoy khimicheskoy tekhnologii)

TITLE: Perrhenates of neodymium and samarium

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 2, 1966, 294-298

TOPIC TAGS: rhenium compound, neodymium compound, samarium compound, inorganic synthesis, refractive index, melting point

ABSTRACT: The synthesis of neodymium and samarium perrhenates was made with an excess of Me_2O_3 (Me = Nb or Sm) by dissolving oxide (~2.5 g Nd_2O_3 or Sm_2O_3) in $HReO_4$ (~70 ml at ~240 g/l concentration (heated in a water bath). The reaction was controlled by methyl red (pH of transition was 6.2) and the H_2O_2 was added to accelerate the reaction. The solutions obtained were filtered out for removal of excess Me_2O_3 and the compounds were crystallized by steaming the solutions in a water bath at 75-80C. The $Nd(ReO_4)_3 \cdot H_2O$ and $Sm(ReO_4)_3 \cdot H_2O$ were formed under these conditions when the solutions were left to evaporate completely. The crystals, consisting of $Nd(ReO_4)_3 \cdot 4H_2O$ and $Sm(ReO_4)_3 \cdot 4H_2O$, were produced when the solutions were evaporated to almost saturated conditions and cooled to room temperature. The crystals of $Me(ReO_4)_3 \cdot H_2O$ and

Card 1/2 UDC: 546.719.71'657+546.719.71'659

ACC NR: AP6019045

$Me(ReO_4)_3 \cdot 4H_2O$ were nonhygroscopic, soluble in water and alcohol, and partly weathered during prolonged storage in air. The neodymium and samarium perrhenates had an orthorhombic habit and the following properties:

	Density g/cc	Refractive Indexes γ	α
$Nd(ReO_4)_3 \cdot 4H_2O$	4.395	1.675	1.668
$Sm(ReO_4)_3 \cdot 4H_2O$	4.487	1.684	1.675
$Nd(ReO_4)_3 \cdot H_2O$	5.285	1.733	1.720
$Sm(ReO_4)_3 \cdot H_2O$	5.331	1.733	1.723

Dehydration of $Me(ReO_4)_3 \cdot 4H_2O$ at 50C resulted in their transformation into $Me(ReO_4)_3 \cdot H_2O$. The latter was converted at 140-160C into anhydrous salt. The anhydrous neodymium and samarium perrhenates were strongly hygroscopic, easily soluble in water and alcohol, and had refractive indexes higher than those of the standard set of immersion liquids. The anhydrous perrhenates were stable during heating to temperatures below 650C. They decomposed at temperatures > 650C with liberation of Re_2O_7: $2Me(ReO_4)_3 \rightarrow Me_2O_3 - 3Re_2O_7\uparrow$. The decomposition was very slow, and slightly decomposed anhydrous neodymium and samarium perrhenates melted at 952 and 905C, respectively. Orig. art. has: 5 fig. and 6 tables.

SUB CODE: 07/ SUBM DATE: 09Nov64/ ORIG REF: 003/ OTH REF: 001

Card 2/2

L 4457-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP5018718 UR/0070/65/010/004/0509/0514
548.736:535.342

58
55
B

AUTHORS: Ivanov, V. I.; Varfolomeyev, M. B.; Petrov, K. I.; Pervykh, V. G.; Plyushchev, V. Ye.

TITLE: X-ray diffraction and infrared spectroscopic study of tetrahydrates of perrhenate of rare earth elements and yttrium

SOURCE: Kristallografiya, v. 10, no. 4, 1965, 509-514

TOPIC TAGS: x-ray diffraction analysis, IR spectroscopy, crystal lattice structure, crystal symmetry, crystal unit cell, rare earth element

ABSTRACT: The authors investigated crystals of tetrahydrates of perrhenate of lanthanum, lanthanoids, and yttrium, the production and chemical analysis of which were described in an earlier paper (Dokl. AN SSSR v. 158, 664, 1964). A schematic study of the single crystals in x-ray cameras and with a diffractometer has shown that these substances crystallize in three different structural types. The syngony,

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ACCESSION NR: AP5018718

the space group, and the unit-cell dimensions of representatives of these three groups are presented. The first group (LaGePr), consists of crystals belonging to the monoclinic syngony, space group C_{2h}^5 -- $P2_1/c$ with four formula units per unit cell. The second group includes Pr, Nd, Sm, Eu, Gd, Tb, and Dy, with crystals of rhombic symmetry, and space group C_{2v}^9 -- $Pna2_1$, with four formula units per unit cell. The third group includes Ho, Er, Tu, Yb, Lu, and Y, forming crystals of triclinic syngony. The space group is T1 and the unit cell contains two formula units. The parameters of the unit cells and the infrared absorption spectra were obtained for some of these elements. In the case of the tetrahydrate of praseodymium perrhenate, it crystallizes from solutions in both monoclinic and rhombic syngony under the same conditions. 'The authors thank Ye. S. Makarov for interest in the work.' Orig. art. has: 3 figures and 2 tables.

Card 2/3

L 4457-66
ACCESSION NR: AP5018718

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Venadskogo AN SSSR (Institute of Geochemistry and Analytical Chemistry AN SSSR ; Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 22Dec64 ENCL: 00 SUB CODE: OP, SS

NR REF SOV: 003 OTHER: 003

Card 3/3

VARFOLOMEYEV, N.

Examination of Welded Seams by Gamma Rays: by Engr. N. Varfolomeyev.

"Merchant Fleet", Issue No. 2 (Feb '52)

3

(2)

Journal of Applied Chemistry
June 1954
Industrial Inorganic Chemistry

1 **Liquid inoculation of cast iron.** N. M. Varfolomeev and D. M. Gol'denberg (*Liteinoe Proizvodstvo*, 1953, 3, No. 3, 14).—In the method described for inoculating cast iron in the liquid state, an alloy containing C 3·5, Si 9, and Mn 0·7% is prepared from 75% ferrosilicon and liquid grey cast iron and added to a ladle containing white iron at 1300—1350°; 220 kg. of alloy are sufficient to inoculate 5500 kg. of iron, the assimilation of Si being 95%. The microstructure of the product is homogeneous, consisting of a basic pearlitic or sorbitic-pearlitic mass having evenly distributed inclusions of graphite in the form of small bent platelets.

J. Iron Steel Inst. (R.B.C.)

VARFOLOMEYEV, N.M.

USSR/Miscellaneous - Technology

Card 1/1 : Pub. 61 - 16/23

Authors : Varfolomeyev, N. M., and Gol'denberg, D. M.

Title : Simplified method for the calculation of furnace batches

Periodical : Lit. proizv. 3, 28-29, May-June 1954

Abstract : Simplified calculations of foundry-furnace charges (batches) are tabulated. Batch calculation, according to this table, is realized not only with regard to the chemical composition but also with regard to the elements composing the batch. Table.

Institution : ...

Submitted : ...

25(1,5)
SOV/135-59-6-11/20

AUTHOR: Varfomoleyev, M. M., Candidate of Technical Sciences

TITLE: Gas-Cutting Without Deformation

PERIODICAL: Svarochnoye Proizvodstvo, 1959, Nr 6, pp 34-36 (USSR)

ABSTRACT: The author discusses a new method of gas-cutting by air-water-cooling which proves the possibility of cutting single parts without deformation. G. I. Matskevich participated in the experiment. The new method is an air-water-cooling of the cutting edge while cutting by two concentric currents - condensed air within, and water on the outside - around the cutter-flame. Figure 1 shows a special cutter GRUD-51 constructed by the author to apply the new method. Figure 2 gives technical description of the new cutter. The author discusses his experience in welding St 3 and S Ch L steel, (Table 1). The sizes of distortion in cutting GRUD-51 are given in table 2. The authors state that the application of the GRUD-51 cutter is especially efficient for narrow single parts of complicated configuration. The single parts can be prepared for automatic welding

Card 1/2

without additional treatment of the cutting edge. The steel plate (2 mm) can be cut by the new method. There are 3 photographs, 2 diagrams and 2 tables.

ASSOCIATION: Kiyevskiy institut grazhdanskogo vozdushnogo flota (Kiyev Institute for Civil Airlines)

VARFOLOMEYEV, N. M., kand. tekhn. nauk, dotsent

Preventing deformations during mechanical gas cutting. Izv. vys. ucheb. zav.; mashinostr. no.7:155-168 '62. (MIRA 16:1)

1. Kiyevskiy institut grazhdanskogo vozdushnogo flota.

(Gas welding and cutting)

ACCESSION NR: AP4013092 S/0126/64/017/001/0045/0048

AUTHORS: Arbuzov, M. P.; Varfolomeyev, N. M.

TITLE: Deformation effect on the position of Curie point of cementite

SOURCE: Fizika metallov i metalloved., v. 17, no. 1, 1964, 45-48

TOPIC TAGS: iron, Armco iron, U10 steel, steel, Curie point of cementite, cementite, deformation effect on cementite, steel hardening, hardening, annealing, steel annealing

ABSTRACT: A series of magnetometric investigations of annealed and mechanically hardened carbon steel were carried out in order to determine the deformation effect on the position of the Curie point of cementite. Some of the samples were held at 300, 400, 500 and 615C for one hour in order to study the position of the Curie point during this process. The samples consisted of Armco iron and of steel U10. They were heated to 750C, held for 1½ hours at 710C, and were then cooled in the oven. Some of the samples underwent uniaxial compression (75% of deformation). The curves showing the relation of the saturation magnetization to temperature were recorded (during a continuous heating of samples) by an Akulov anisometer in the field intensities of $1/\pi \times 10^6$ a/m and $5/4\pi \times 10^6$ a/m (the results obtained

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ACCESSION NR: AP4013092

at both intensities were identical). It was established that the Curie point of cementite in the deformed steel samples occurred at higher temperatures (260-270C) than in the nondeformed annealed steel. During heating (which removed the plastic deformation effect) the Curie point moved to its normal position at 210C. The authors state that no definite conclusion concerning this effect can be made yet because of insufficient experimental data. They believe, however, that the displacement of the Curie point in the course of deformation was not related to the transformation of cementite into another carbide. Orig. art. has: 3 figures.

ASSOCIATION: Kiyevskiy institut GVF (Kiev Institute GVF)

SUBMITTED: 28Dec62 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: ML, PH NO REF SOV: 013 OTHER: 005

Card 2/2

VARFOLOMEYEV, P.

How supplementary wages are being determined in the Tatar A.S.S.R. Fin.SSSR 21 no.5:56-57 My '60. (MIRA 13:7)

1. Starshiy revizor Ministerstva finansov Tatarskoy ASSR.
(Tatar A.S.S.R.--Bonus system)

VARFOLOMEYEV, P.

The party organization and improvement of operation of the apparatus. Fin. SSSR 21 no.10:76-78 O '60. (MIRA 13:10)

1. Chlen partbyuro Ministerstva finansov Tatarskoy ASSR.
(Tatar A.S.S.R.--Finance)
(Communist Party of the Soviet Union--Party work)

VARFOLAMEYEV, P., revizor; GARANIN, I., revizor

Increase the control over service industry enterprises. Fin. SSSR 22 no.4:49-50 Ap '61. (MIRA 14:4)

1. Ministerstvo finansov Tatarskoy ASSR.
(Tartar A.S.S.R.—Service industries—Finance)

VARFOLOMEYEV, P.

Plans will be fulfilled. Fin. SSSR 22 no.9:63-65 S '61.
(MIRA 14:9)
(Tartar A.S.S.R.--Internal Revenue)

VARFOLOMEYEV, P.

From the work practice of a bureau of economic analysis. Fin. SSSR 23 no.4:55-56 Ap '62. (MIRA 15:4)

1. Starshiy inspektor Ministerstva finansov Tatarskoy ASSR.
(Kazan--Machinery industry--Finance)

VARFOLOMEYEV, P.

Close relations are needed. Fin. SSSR 23 no.8:37-40 Ag '62. (MIRA 15:8)

1. Starshiy inspektor Ministerstva finansov Tatarskoy ASSR.
(Tatar A.S.S.R.—Industrial management)
(Tatar A.S.S.R.—Finance)

KHALITOV, S.; VARFOLOMEYEV, P., vneshtatnyy korrespondent

Financial organs' control over the consumer service industries.
Fin. SSSR 37 no.6:68-72 Je '63. (MIRA 16:9)
(Kazakhstan--Service industries--Auditing and inspection)
(Tatar A.S.S.R.--Service industries--Auditing and inspection)
(Finance)

VARFOLOMEYEV, P.N.; VUL'F, T.Ye.; SHCHERBAKOV, D.I., akademik, redaktor; DROZDOV, M.D., redaktor; SHMANENKOV, I.V., redaktor; KUREK, N.N. professor, redaktor.

[Minerals in the national economy; an album] Poleznye iskopaemye v narodnom khoziaistve; al'bom. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry, po geol. i okhrane nedr. No.2:[Ores of ferrous and non-ferrous metals.---Explanatory text. Metal ore resources] Rudy chernykh i tsvetnykh metallov. 1955. 26 plates --- Poiasnitel'nyi tekst. Metallicheskie poleznye iskopaemye. Sost. P.N.Vorfolomeev i T.E.Vul'f. Konsul'tant N.N.Kurs. 54 p. [Microfilm] (MLRA 9:1) (Mineralogy)

VARFOLOMEYEV, P.S., inzh.

Purification and deactivating of sewage in the new woodpulp and paper factories. Bum.prom. 37 no.9:4-6 S '62. (MIRA 15:9)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsellyuloznoy i bumazhnoy promyshlennosti.
(Woodpulp industry--Equipment and supplies)
(Sewage--Purification)

VARFOLOMEYEV, V.

Guarding maritime borders. Sov.mor. 17 no.15:6-7 Ag '57.
(MIRA 10:11)
(Russia--Navy)

VARFOLOMEYEV, V.

Urgent needs of a fur farm. Sov. potreb. koop. no.1:29-30 Ja '58.
(Alakul'skiy District--Muskrats) (MIRA 11:1)

VARFOLOMEYEV, V. (g.Stavropol' (Volzhskiy))

City of a big chemistry plant. Sov.profsoiuzy 16 no.5:30-33 Mr '60. (MIRA 13:3)
(Stavropol(Kuybyshev Province)--Rubber, Synthetic)

VARFOLOMEYEV, V.

Follow-up to a letter. Sov. shakh. 11 no.10:21 O '62. (MIRA 15:9)

(Coal mines and mining--Accidents) (Insurance, Accident)

MYZNIKOV, V. (Khar'kov); MIROSHNICHENKO, M. (Khar'kov); SHCHETINA, A., frezerovshchitsa, delegat XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuza (Khar'kov); DOMRIN, I. (Khar'kov); VARFOLOMEYEV, V. (Khar'kov)

Approved and... forgotten. Sov. profsoiuzy 18 no.4:20 F '62. (MIRA 15:3)

1. Reydovaya brigada zhurnala "Sovetskiye profsoyuzy". 2. Rukovoditel' brigady kommunisticheskogo truda imeni XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuza 3-go mashinnogo tsekha Khar'kovskogo elektromekhanicheskogo zavoda (for Myznikov). 3. Sekretar' partorganizatsii 5-go apparatnogo tsekha Khar'kovskogo elektromekhanicheskogo zavoda (for Miroshnichenko). 4. 3-y mashinnyy tsekh normalizovannykh detaley Khar'kovskogo elektromekhanicheskogo zavoda (for Domrin). 5. Spetsial'nyy korrespondent zhurnala "Sovetskiye profsoyuzy" (for Varfolomeyev).
(Kharkov--Electric industries--Hygienic aspects)
(Industrial hygiene)

VARFOLOMEYEV, V., inzh.

Leverless self-resetting safety valve. Zhil.-kom. khoz. 13 no.1:25 '63. (MIRA 16:3)
(Boilers—Safety appliances) (Valves)

SEMENOV, L.S.; VARFOLOMEYEV, V.G.; YURCHENKO, A.L.

Manufacture of "SKO" covers from lacquer-coated aluminum. Kons. i ov. prom. 18 no.11:28-30 N '63. (MIRA 16:12)

1. Konservnyy kombinat v Krymske (for Semenov, Varfolomeyev).
2. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti (for Yurchenko).

VARFOLOMEYEV, V.K.

Deficiencies in the equipment of 2,000-ton capacity blast furnaces. Metallurg 9 no.5:12-14 My '64. (MIRA 17:8)

KOPYTINA, M.V.; VARFOLOMEYEV, V.M.

Application of the statistic method of the many-particle theory for the calculation of CH_4 molecule. Zhur. strukt. khim. 5 no.4:604-607 Ag '64. (MIRA 18:3)

1. Voronezhskiy gosudarstvennyy universitet.

VARFOLOMEYEV, V.V., inzh.

Problem concerning the design of safety valves for large water-heating boilers. Elek. sta. 32 no.2:16-17 F '61. (MIRA 16:7)
(Water heaters) (Boilers--Safety appliances)

damage, [illegible]

TRANSLATION: In the last 2 - 3 years in a number of enterprises of oil refining industry in vessel walls of separate [illegible] apparatuses working with media containing hydrogen sulfide [illegible] and moisture at temperatures from 50 to 300 and pressures from [illegible] to [illegible] atmospheres, [illegible] weld seam of metal stratification, the formation [illegible] in walls of bubbles and a large quantity of [illegible] of hydrogen [illegible] steel. The cause of this phenomenon is [illegible] [illegible] conditions [illegible]

Card 1/2

L 6706-65
ACCESSION NR: AR4041667

penetration of hydrogen in metal. We recommend measures undertaken to combat hydrogen destruction of metal of vessels [illegible] basic groups [illegible] founded on preventing of corrosion process which causes separation of hydrogen (demolition on vessel walls, from inside, of vacuum and paint coverings) and [illegible]

media into polysulfides) Holography: 2 [illegible]

Card 2/2

VARFOLOMEYEV, V.V., inzh.

Examination of vessels of air-separating equipment. Bezop. truda v prom. 8 no.10:22-23 O '64. (MIRA 17:11)

1. Gosudarstvennyy komitet pri Sovete Ministrov RSFSR po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i gornomu nadzoru.

VARFOLOMEYEV, V.V., inzh.; KONDRASHOV, A.M., inzh.; LAGUNOV, N.A., inzh.; SEN'KIN, Ye.G., inzh.; SIGALOV, L.B., inzh.

[Failures in boiler inspection systems and measures for preventing them; informational letter] Avarii na ob"ektakh kotlonadzora i mery po ikh preduprezhdeniiu; informatsionnoe pis'mo. Izd.2. Moskva, Nedra, 1965. 173 p. (MIRA 18:6)

1. Russia (1917- R.S.F.S.R.) Gosudarstvennyy komitet po nadzoru za bezopasnym vedeniem rabot v promyshlennosti i gornomu nadzoru.

VARFOLOMEYEV, V.F. (Leningrad)

Intravenous novocaine injection in an acute attack of glaucoma. (MIRA 11:3)
Vest.oft. 71 no.1:54-55 Ja-F '58.
(GLAUCOMA, ther.
procaine, intravenous infusion in acute attack)
(PROCAINE, ther. use
glaucoma, intravenous infusion in acute attack)

BAYKOV, Aleksey Vasil'yevich, inzh.; VARFOLOMEYEV, Ye.A., retsenzent; SHCHAPOV, N.P., retsenzent; KRISHTAL', L.I., red.; BOBROVA,

[Standardization in railroad transportation] Standartizatsiia na zheleznodorozhnom transporte. Moskva, Transzheldorizdat, 1962. 107 p. (MIRA 15:7)
(Railroads) (Standardization)

VARFOLOMEYEV, Yu.M.; BATRACHENKO, V.A., inzh.

Centralized boiler plant in Koptevo and its operation. Gor. khoz.Mosk. 36 no.7:32-33 Jl '62. (MIRA 16:1)
(Koptevo—Boilers—Maintenance and repair)

VARFOLOMEYEV, Yu.M.

Controlling corrosion in hot-water supply systems by water stabilization through filtration. Vod. i san. tekh. no.2: 13-17 F '61. (MIRA 14:7)

(Hot-water supply)
(Pipelines--Corrosion)
(Filters and filtration)

VARFOLOMEYEV, Yu.N

AID P - 3529

Subject : USSR/Power Eng

Card 1/1 Pub. 26 - 23/30

Author : Varfolomeyev, Yu. N., Eng.

Title : To V. I. Evseyev's article "On the performance of disconnectors"

Periodical : Elek. sta., 9, 57, S 1955

Abstract : The author criticizes Evseyev's article published in this periodical. No. 4, 1954 and emphasizes the need of revising the layouts and operations of networks especially in rural areas, in order to avoid short circuits. One diagram.

Institution : None

Submitted : No date

VARFOLOMEYEVA, A.

N - Hospital in Mechinkova Inst., Moscow, (-1944-)

"Examination of a wound microflora and its dynamics in cytogramms of the wound exudation"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 9, 1944.

VARFOLOMEYEVA, A.A.

[Leptospirosis] Leptospiroz. Moskva, Medgiz, 1946. 39 p.
(LEPTOSPIROSIS) (MIRA 12:4)

VARFOLOMEYEVA, A.A.

Leptospirosis; Weil-Vasilev's disease and blackwater fever. Feldsher & akush. no.4:20-23 Ap '50. (CLML 19:2)

VARFOLOMEYEVA, A. A.

USSR/Medicine - Infectious Diseases Nov 51

"Effectiveness of Penicillin Therapy in Jaundice-Free Leptospirosis," A. A. Varfolomeyeva, M. T. Yantsen, E. Ye. Estrina, Moscow Oblast Inst of Epidemiol, Microbiol, and Infectious Diseases imeni I. I. Mechnikov; Sychevsk Rayon Hosp.

"Sov Med" Vol XV, No 11, pp 29-32

Penicillin was found to be very effective in the therapy of jaundice-free leptospirosis.

204T57

VARFOLOMEYEVA, A.A.; KOVAL'SKIY, G.N., direktor.

Preparation and application of anti-leptospirosis vaccine. Zhur.mikrobiol. epid.i immun. no.8:47-49 Ag '53. (MLRA 6:11)

1. Moskovskiy institut im. I.I.Mechnikova (for Sokolov). 2. Krasnodarskiy institut im. Savchenko (for Koval'skiy). (Vaccination)

VARFOLOMEYEVA, A.A.; KOVAL'SKIY, G.N.

Plea for more extensive application of achievements in the field of control of leptospirosis; results of the All-Union Scientific and Practical conference on Problems of Leptospiroses. Zhur. mikrobiol. epid. i immun. no.12:110-112 D '54. (MLRA 8:2)
(LEPTOSPIROSIS, prevention and control, in Russia, conf.)

VERSHILOVA, Polina Al'bertovna; OLSUF'YEV, Nikolay Grigor'yevich; VARFOLOMEYEVA, Angelina Aleksandrovna; SHIK, M.M., redaktor; ISLENT'YEVA, P.G., tekhnicheskiy redaktor.

[Contagious diseases transmitted by animals to man (brucellosis, tularemia, leptospirosis) Zaraznye bolezni, peredaiushchiesia ot zhivotnykh cheloveku(brutsellez, tuliaremiia, leptospiroz) Moskva, Izd-vo "Znanie," 1955. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii, Ser.3, no.18) (MLRA 8:9)

(Brucellosis) (Tularemia) (Leptospirosis)

VARFALOMEYEVA, A.A.; KAVAL'SKIY, G.N.

Discussion on P.F.Khoruzhenko's article "Epidemiology of swamp fever." Zhur.mikrobiol.epid. i immun. 27 no.9:106-107 S '56.
(LEPTOSPIROSIS, epidemiology,
swamp fever (Rus)) (MLRA 9:10)

VARFOLOMEYEVA, A.A.

Epidemiology and etiology of an outbreak of leptospirosis. Zhur. mikrobiol.epid. i immun. 28 no.1:39-44 Ja '57. (MLRA 10:3)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni I.I.Mechnikova.
(LEPTOSPIROSIS, epidemiology,
in Russia (Rus))

EXCERPTA MEDICA Sec 4 Vol 12/5 Med. Micro. May 59

VARFOLOMEYEVA, A.A.

1356. THE PROPERTIES AND NOMENCLATURE OF L. PEREPELITSIN, A CAUSATIVE AGENT OF BENIGN LEPTOSPIROSIS - Varfolomeeva A. A. Mechnikoff Inst. for Vaccins and Sera, Moscow - J. HYG. EPIDEM. - MICROBIOL. -IMMUNOL. (Prague) 1958, 2/1 (50-56) Graphs 1 Tables 3

L. perepelitsin was first identified by Tarassovi in marsh fever in Russia in 1938. The Australian strain L. mitis and the Argentinian strain L. hyos, which are identical with L. perepelitsin, were discovered some 4-6 yr. later.

VARFOLOMEYEVA, A.A.

History of discovery, characteristics and nomenclature of Leptospira monjakow. Zhur. mikrobiol. epid. i immun. 29 no.8:36-42 (MIRA 11:10) Ag '58.

1. Iz Moskovskogo instituta vaktsii i syvorotok imeni Mechnikova.
(LEPTOSPIRA,
monjakow, discovery, nature & nomenclature (Rus))

VARFOLOMEYEVA, A. A., LAVROVA, M. YA.

"The nidi of leptospiroses and their classification."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

17(2) SOV/16-59-9-46/47

AUTHOR: Varfolomeyeva, A.A.

TITLE: Results of the International Symposium on Leptospiroses

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Vol. 30, Nr 9, pp 153-155 (USSR)

ABSTRACT: The Symposium was held in Lublin, Poland, from 5 - 8 December 1958 and was devoted to the problem of leptospiroses in man and animals. It was organized by the State Institute for Rural Professional Medicine and Rural Hygiene under the direct sponsorship of the Polish Academy of Sciences. The following delegates attended: Professors Parnas, Żwierz, Tuszyński, Dąbrowski (Poland); Professor Kathe and Doctor Mochmann (East Germany); Doctor Kmetý (ČSR); Professors Varfolomeyeva and Lyubashenko (USSR); Doctor Füzy (Hungary). The Symposium heard 30 papers, divided into 5 sessions. Parnas and his colleagues spoke on the morphological details of 27 serological types of leptospires. The results showed that the length and breadth of the body and the number of spirals in leptospires vary according to their species, their stage of development and growth. In young strains

Card 1/3

conglomerates are forming and in older strains spherical granules. The latter consist of an accumulation of nucleoproteids. Extracellular forms fulfil the function of stages of leptospire growth. Kmetý studied the antigenic mechanism of L. australis A, using the factorial investigation of serotypes. Kate described the occupational incidence of leptospiroses in East Germany. Tuszyński used recent records on leptospirosis in Poland to characterize the leptospirosis syndrome. Mochmann dealt with the question of complications which develop after leptospirosis. Varfolomeyeva dealt with the etiology of leptospiroses in the USSR, their specific prophylaxis and therapy with specific gamma-globulins and also demonstrated a universal laboratory model (baby rabbits) for reproducing leptospirosis. Lyubashenko gave an exposé of contemporary data on the epizootology, etiology, prophylaxis and treatment of leptospirosis among domestic animals. The Symposium called for more symposia along the same lines. Work should be intensified on the classification of new strains. The International Bacteriological Code should be adhered to. Marsh drainage, the destruction of rodents

and improvement of sanitary conditions will help to counter leptospirosis. The vaccination of domestic animals is recommended, but work still remains to be done on the method. The Symposium commended the USSR's method of treating leptospirosis patients with gamma-globulins.

VARFOLOMEYEVA, A.A.; PEROVA, K.S.; MINIOVICH, F.L.

Effectiveness of leptospiral gamma globulin in experiments. J.hyg. epidem.Praha 4 no.4:424-431 '60.

1. Metchnikoff Institute of Vaccines and Sera, Moscow.
(LEPTOSPIROSIS immunol)
(GAMMA GLOBULIN)

VARFOLOMEYEVA, N.A.

Controlling leptospirosis is an urgent task of medical and veterinary personnel. Zhur.mikrobiol. epid. i immun. 32 no.4: 154-156 Ap '61. (MIRA 14:6)

(LEPTOSPIROSIS)

VARFOLOMEYEVA, A.A.

"The antigonical nature of factors which evoke leptospirosis, under the aspect of the ecollogy of chief carriers."

Report submitted to the Second Intl. Symp. on Human and animal Leptospirosis, Lublin, Poland 6-8 Dec 1962

Also the following reports:

"Systematic and taxonomy for leptospira in the SSSR."

"The specific therapy of leptospirosis."

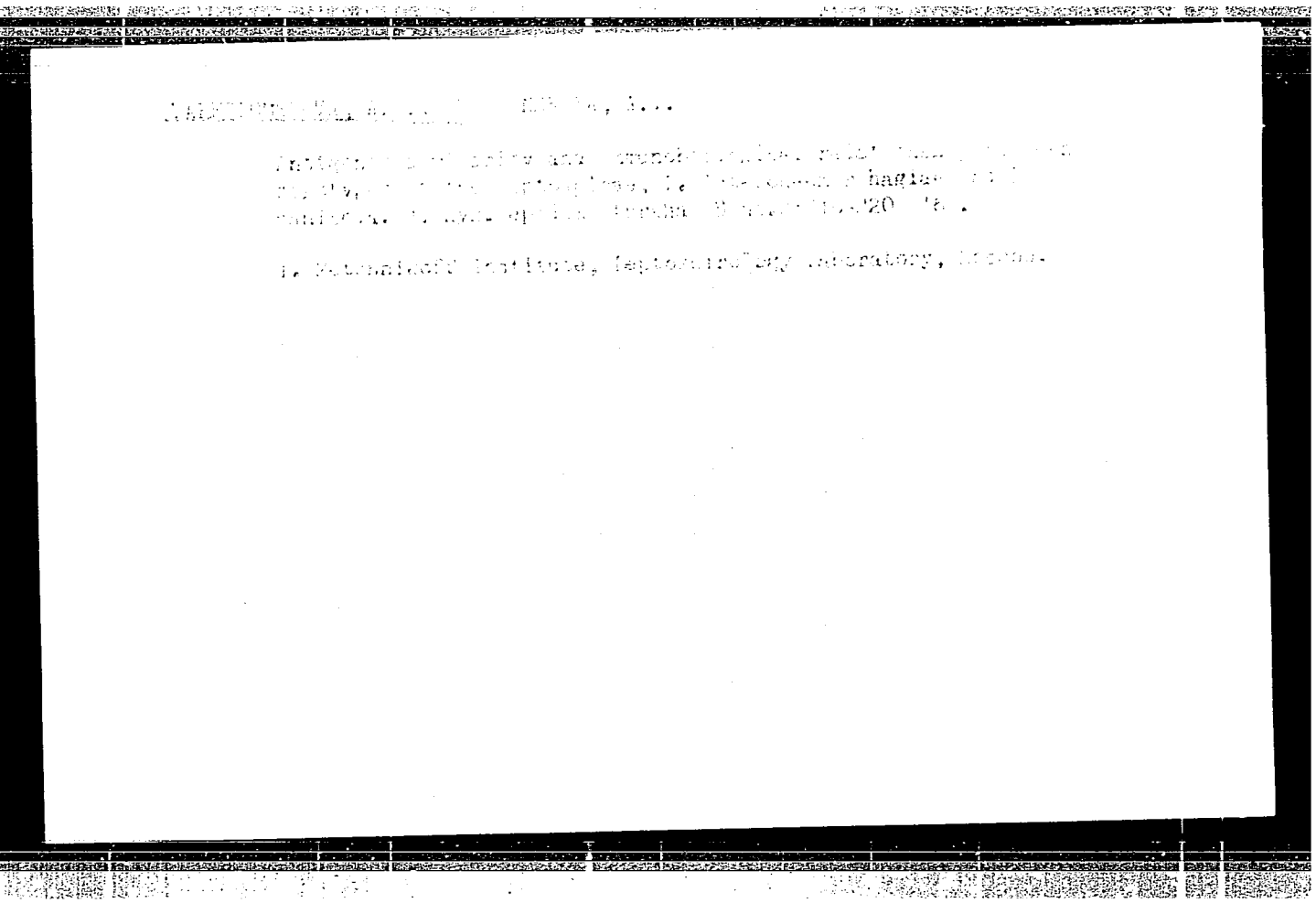
VARFOLOMEYEVA, A.A., prof.

All-Union Conference on Leptospirosis. Veterinariia 37 no.8:91-92 Ag '62. (MIRA 15:4)

(Leptospirosis--Congresses)

VARFOLOMEYEVA, A.A.; LAVROVA, M.Ya.

Antigenic structure of leptospirosis agents with respect to the ecology of basic host animals. Biul. MOIP. Otd. biol. 68 no.3:14-20 My-Je '63. (MIRA 17:8)



VARFOLOMEEVA, A.A.

Aetiology of Leptospiroses in man and animals in the U.S.S.R.
J. hyg. epidem. (Praha) 8 no.3:318-325 '64

1. Central Institute of Scientific Research on Epidemiology, Moscow.

[illegible], A.A.; [illegible], T.A.; [illegible]KO, T.L.

Effectiveness of specific gamma globulin in the treatment of leptospiral infections in man. Zhur. mikrobiol., epidem. i immun. 41 no.4: 450-456 '64.

1. Central Microbiology Research Institute of the Ministry of Health of the U.S.S.R., Moscow.

RUDCHENKO, A.V., prof.; BOKOV, A.N., dotsent; VARFOLOMEYEVA, A.G., assistant; BELOKON', A.N., dotsent; GORYAINOVA, Ye.F.; DANILOVA, V.I.

Industrial hygiene in the production of lead batteries. Report No.2. Sbor. trud. Kursk. gos. med. inst. no.13:15-22 '58. (MIRA 14:3)

1. Iz kafedry gigiyeny (zav. - prof. A.V.Rudchenko), obshchey khimii (zav. - dotsent A.N.Belokon') Kurskogo gosudarstvennogo meditsinskogo instituta i Kurskoy oblastnoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach - V.I.Latanov).

(LEAD--POISONING) (INDUSTRIAL HYGIENE)

VARFOLOMEYEVA, A.M.

USSR/Cultivated Plants - Grains M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53547

Author : Buylin, D.P., Varfolomeyeva, A.M.

Inst : Kuybyshevsk State Agricultural Testing Station

Title : Bezenchukskaya 98 Spring Wheat

Orig Pub : Byul. nauchno-tekhn. informa. Kuybyshevsk. (Bezenchuksk). gos. s.-kh. opytn. st., 1957, 1, 31-32

Abstract : This variety was developed for irrigation farming. It is characterized by a large number of spikelets on the spike, good grain yield (5-6 grains to a spikelet), resistance to damping off and to the attacks of fungus diseases. It is also distinguished by a high (18.8%) protein nitrogen content, and by good milling and bread baking qualities. With regard to yield, it exceeded Lyutestsens by 8.3 centners/ha and Gordeiforme by 5.4 centners/ha.

Card 1/1

VARFOLOMEYEVA, E.N.

VARFOLOMEYEVA, E.N.

Ancient glaciation of the Tardoki-Yani Range (northern Sikhote-Alin Range). Izv. Vses. geog. ob-va 89 no.6:542-548 N-D '57. (MIRA 10:12)
(Sikhote-Alin Range--Glaciers)

YEVTUSHENKO, V.A.; VARFOLOMEYEVA, G.V.

Structure of agar gels. Part 1: Electron microscope study. Vysokom. soed. 5 no.12:1867-1869 D '63. (MIRA 17:1)

1. Severnyy nauchno-issledovatel'skiy institut promyshlennosti.

VARFOLOMEYEVA, I.

Electron microscopic study of impressions of surfaces of pollen grains and sections ("Structure of some pollen membranes" [in German]. K. Mühlenthaler. Reviewed by I. Varfolomeeva. Bot. zhur. 41 no.3:434 Mr '56. (MLRA 9:8)

1. Botanicheskiy institut imeni V.L. Komarova Akademii nauk SSSR, Leningrad.
(Pollen, Fossil) (Electron microscopy)

VARFOLOMEYEVA, K.A. (g. Ul'yanovsk)

Collections of self-made chemical samples. Khim. v shkole 13 no.1:50-53 Ja-F '58. (MIRA 10:12)
(Chemistry--Study and teaching)

VARFOLOMEYEVA L. A.

Category: USSR / Physical Chemistry - Crystals B-5

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 29673

Author : Zhdanov G. S., Umanskiy M. M., Varfolomeyeva L. A., Yezhkova Z.I., Zolina Z. K.

Inst : not given Moscow State Univ. im M V. Lomonosov

Title : Roentgenographic Determination of Unit Cells and Spatial Groups of Piezoelectric Crystals: $KLiC_4H_4O_8.H_2O$, $NH_4LiC_4H_4O_8.H_2O$, $NaHC_4H_4O_6.H_2O$ and $(NH_4)_2C_4H_4O_6$.

Orig Pub: Kristallografiya, 1956, 1, No 3, 271-273

Abstract: Precise measurements of lattice parameters were carried out on monocrystals by means of roentgenograms obtained with a RKU-114 camera, without thermostatic controls, at room temperature; Fedorov groups were determined from kforograms. For $KLiC_4H_4O_8.H_2O$ (I) a 7.839, b 14.318, c 6.326 kX; β 2.01; Z = 4; F.gr. $P2_12_12$; $NH_4LiC_4H_4O_8.H_2O$ (II) 7.860, 14.615, 6.414 kX; 1.73; 4; $P2_12_12$; $NaHC_4H_4O_6.H_2O$ 8.663, 10.580, 7.230 kX; 4; $P2_12_12$; $(NH_4)_2C_4H_4O_6$ 7.067, 6.116, 8,790 kX; β 92°25', 1.608; 2; $P2_1$. Crystals of I and II are isomorphous. Lattice parameters of II were determined twice (RZhKhim, 1955, 39570).

Card : 1/1 -13-

70-3-3-23/36

AUTHORS: Varfolomeyeva, L.A., Zhdanov, G.S. and Umanskiy, M.M.

TITLE: The Determination in Principal of the Structure of the Isomorphous Group of Compounds $[C(NH_2)_3]_2[M(H_2O)_6]_2[EO_4]_2$

Where M = Al or Cr and E = S or Se (Printsipial'naya rasshifrovka struktury izomorfnoy gruppy soyedineniy $[C(NH_2)_3]_2[M(H_2O)_6]_2[EO_4]_2$, M = Al, Cr; E = S, Se)

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 3, pp 368 - 371 (USSR)

ABSTRACT: From packing considerations possible positions for the various structural groups in compounds of the GASH type are suggested: $M(H_2O)_6$ at (0,0,0), (1/3, 2/3, Z_1) and (2/3, 1/3, Z_1); $C(NH_2)_3$ at (0,0,Z_2), (1/3, 2/3, 0) and (2/3, 1/3, 0); EO_4 at (1/3, 1/3, 1/4), (0, 2/3, 1/4), (2/3, 0, 1/4), (2/3, 2/3, 3/4), (0, 1/3, 3/4) and (1/3, 0, 3/4). Patterson projections P(x,y) and P(x,z) were calculated from Weissenberg photographs for the compounds with (Al, S) and (Al, Se). These largely confirm the suggested model. There are 3 figures and 3 tables and 3 References, 1 of which

Card1/2

70-3-3-23/36

The Determination in Principal of the Structure of the Isomorphous Group of Compounds $[C(NH_2)_3][M(H_2O)_6]_2$, $[EO_4]_2$ Where M = Al or Cr and E = S or Se

is Soviet and 2 English.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

SUBMITTED: February 22, 1958

Card 2/2

REZ, I.S.; VARFOLOMEYEVA, L.A.

Guanidine sulfatoaluminate hexahydrate (synthesis, growth of single crystals and some of their properties). Rost krist. 2:126-131 '59. (MIRA 13:8)
(Guanidine crystals)

24(2) PHASE I BOOK EXPLOITATION SOV/2353

Akademiya nauk SSSR. Institut kristallografii

Rost kristallov, tom. 2 (Growth of Crystals, Vol. 2) Moscow, 1959. 238 p. Errata slip inserted. 2,000 copies printed.

Resp. Eds.: A. V. Shubnikov, Academician, and N. N. Sheftal', Doctor of Geological and Mineralogical Sciences; Ed. of Publishing House: K. S. Aleksandrov; Tech. Ed.: T. V. Polyakova.

PURPOSE: This book is intended for scientists and researchers engaged in crystallography and in growing industrial monocrystals.

COVERAGE: This is the second of two volumes on crystal growth. The first volume contained reports delivered at the First Congress on Crystal Growth. The present volume also contains an extensive study of corundum synthesis by S. K. Popov (deceased). These studies reflect the development of Soviet research in crystallography in the period following the first congress. The studies contain some essentially new results obtained by Soviet scientists. The editors express the hope that these studies will unite the efforts of Soviet scientists engaged in studying the process of crystal growth and in growing industrially valuable monocrystals. No personalities are mentioned. References are given at the end of each article.

Tsinober, L. I., L. G. Chentsova, and A. A. Shternberg. The Green and Brown Tint of Synthetic Quartz Crystals 61

Kozmatsev, I. Ye. Crystallization of KJ on a Biotite and Muscovite Surface 68

Belyustin, A. V. Feasibility of Determining Surface Energy of Crystals From Equilibrium States 70

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Kashpar, Yan. Growing of Calcite and of Other Carbonates 73

Sheadiarov, N. N., and B. S. Aleksandrov. Growing of Anthracene Monocrystals 78

Popova, A. A. Orientation of Monocrystals of Certain Ferrites 84

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Sinyakova, I. A., and I. V. Stepanov. Synthesis of Extrapure Salts of Calcium Fluoride and Barium Fluoride for Growing Optical Monocrystals 115

Kokorish, Ye. Yu. Effect of Cooling Conditions on the Creation of Dislocations on the Creation of Dislocations in Germanium Crystals 120

Rez, I. S., and L. A. Varfolomeyeva. Guanidine-aluminum sulfate-hexahydrate (Synthesis, Growing of Monocrystals, and some Properties of the Monocrystals) 126

Kokorish, N. P. Crystallization of Germanium on Silicon and Silicon on Germanium 132

Popov, S. K. Growing and Certain Uses of Corundum Crystals 140

III. SURVEYS AND DISCUSSION ARTICLES

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Slavnova, Ye. N. Main Trends in the Study of Mixed Systems: Inorganic Crystals - Organic Admixture (Survey) 223

AVAILABLE: Library of Congress

L 44579-66 EWT(m)/EWP(j)/T WW/RM

ACC NR: AP6015671 (A) SOURCE CODE: UR/0413/66/000/009/0076/0076

30
B

INVENTOR: Zapletnyak, V. M.; Varfolomeyeva, L. S.; Arkhipova, Z. V.

ORG: none

TITLE: Preparation of polyethylene or copolymers of ethylene with Alpha-olefins. Class 39, No. 181292 [announced by the State Scientific Research Institute of Polymers (Gosudarstvennyy nauchno-issledovatel' skiy institut polimerizatsionnykh plastmass)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 76

TOPIC TAGS: copolymer, olefin, polyethylene, ethylene olefin copolymer

ABSTRACT: This Author Certificate introduces a method of obtaining polyethylene or copolymers of ethylene with alpha-olefins in a hydrocarbon solvent at temperatures ranging from -30 to 80C in the presence of a catalyst consisting of vanadium and organoaluminum compounds soluble in hydrocarbons. To increase the yield of polymers

Card 1/2 UDC: 678.742.2.044:678.742.2-134.2.044

L 44579-66

ACC NR: AP6015671

or copolymers, the polymerization is carried out in the presence of halogenated hydrocarbons, such as pentachlorethane, as the third component of the catalyst. [LD]
[Translation]

SUB CODE: 11/ SUBM DATE: 28Jun65/

Card 2/2

DRUZHININ, I.G.; VARFOLOMEYEVA, L.T.; FEL'DSHER, S.A.

Comparative characteristics of the chemical composition of well waters on the "Vasil'evskii" State Farm. Uch. zap. Biol.-pochv. fak. Kir. un. no.7:155-162 '58. (MIRA 15:10)
(Kirghizistan—Water—Composition)

RUSAKOV, G.K., nauchnyy sotrudnik; MILYAVSKIY, I.O., nauchnyy sotrudnik; ARINA, A.Ye., nauchnyy sotrudnik; PANKOVA, K.I., nauchnyy sotrudnik; KHABAROV, N.F., nauchnyy sotrudnik. Prinimali uchastiye: PAVLOVA, N.G.; VYATCHININA, V.G.; VARFOLOMEYEVA, M.M. TIKHONOVA, Ye.M., red.; GUREVICH, M.M., tekhn.red.; DEYEVA, V.M., tekhn.red.

[Economic accountability on collective farms; regulations and methods of introduction] Vnutrikhozialstvennyi raschet v kolkhozakh; primernoe polozhenie i metodika vnedreniia. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 71 p. (MIRA 14:1)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva (for Rusakov, Milyavskiy, Arina, Pankova, Khabarov).
(Collective farms--Accounting)

VARFOLOMEYEVA, N., s"yemshchitsa

To see each person individually. Sov.profsoiuzy 16 no.5:23 Mr '60. (MIRA 13:3)

1. Yakhromskaya pryadil'no-tkatskaya fabrika.
(Textile workers--Education and training)

KRAMARENKO, G.N.; NECHAYEVA, Z.P.; TKACHENKO, S.S., dotsent; FLORENSOV, A.A., kand.med.nauk; LADIS, I.A.; VARFOLOMEYEVA, S.N.; KOSTRIKOV, V.S., kand.med.nauk

Reports on meetings of societies of traumatologists and orthopedists. Ortop., travm. i protez. 21 no.8:82-94 Ag '60. (MIRA 13:11)
(ORTHOPEDIC SOCIETIES)

LESHCHINSKIY, L.A., dotsent; VARFOLOMEYEVA, T.B.; ORESHKOV, T.M.; PETUKHOVA, N.I.

Effectiveness of the cholagogue berberine in chronic inflammatory diseases of the biliary tract. Sov. med. 28 no.7:120-122 Jl '64. (MIRA 18:8)

1. Kafedra gospital'noy terapii (nauchnyy rukovoditel' - prof. A.Ya.Cubergrits) Izhevskogo meditsinskogo instituta.

KIRPATOVSKIY, I.D.; VARFOLOMEYEVA, T.M. (Moskva)

Experimental comparison of knotted and continuous sutures of intestinal serous membranes to muscles. Eksp. khir. 3 no.6:57-58 N-D '58. (MIRA 12:1)
(INTESTINES--SURGERY)
(SUTURES)

VARFOLOMEYEVA, T.P.

PETROVSKAYA, A.N.; VARFOLOMEYEVA, T.P.

Lithology and conditions of formation of the Pashiya series in the southeastern Tatar A.S.S.R. Trudy VNII no.11:26-41 '57. (MLRA 10:11)
(Tatar A.S.S.R.--Rocks, Sedimentary)

PETROV, V.A.; VARFOLOMEYEV, P.I.

Lithologic composition and genesis of Jivet sediments in the southern Tatar A.S.S.R. Trudy VNII no.14:28-39 '58. (MIRA 12:7)
(Tatar A.S.S.R.--Geology, Stratigraphic)

PETROVSKAYA, A.N.; YEGOROVA, L.N.; VARFOLOMEYEVA, T.P.

Stratigraphic and lithologic correlation of the productive Devonian sediments in the Elabuga, Akhtash, and Aznakayevo areas of the Tatar A.S.S.R. Nauch.-tekh. sbor. po dob. nefti no.1:58-61 '58. (MIRA 15:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Romashkino region--Petroleum geology)

VARFOLOMEYEVA, V. N.

20-6-17/48

AUTHORS: Varfolomeyeva, V. N., Zhevandrov, N. D.

TITLE: Polarization Diagrams of the Luminescence of the Monocrystals of Stilbene (Polyarizatsionnyye diagrammy lyuminestsentsii monokristallov stil'bena)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 115, Nr 6, pp. 1115 - 1118 (USSR)

ABSTRACT: Investigations discussed here were carried out with spherical stilbene crystals. For the purpose of stimulating the luminescence in the center, the spheres were intersected in diagonal planes with a certain direction. The polarization diagrams were taken by a polarization-goniometric apparatus. First the dependence of polarization on the torsion angle of the crystal (round a horizontal axis) was measured at each hemisphere and then the positions of the crystal with such orientation was ascertained at which the polarization has the maximum positive or the maximum negative value. The stilbene monocrystals serving for the production of the samples were raised in soldered test-tubes according to the method of Obreimov-Shubnikov. The large monocrystals were divided into several smaller pieces. These spheres were intersected into

Card 1/3

Polarization Diagrams of the Luminescence of the Monocrystals of Stilbene

hemispheres in the following planes: I - in the plane of the optical axes. II - square with the bisector of the acute angle between the optical axes. III - square with the bisector of the obtuse angle between the optical axes. Then something is said on the theoretical computation of the azimuthal dependences and of the polarization diagrams of the luminescence. Then a sketch illustrates the computed positive and negative polarization diagrams for all of the three sections mentioned above. A second sketch contains the corresponding diagrams that have been measured by experiment. There is a good conformity qualitative of the corresponding diagrams. Because of this good qualitative conformity the determination of the orientation of the molecules in the crystal lattices of the polarization of the luminescence can be considered. That is, a new method for the determination of the structure of the crystal is obtained thereby. But the theoretical and experimental curves do not correspond quantitatively, maybe because of the influence of the temperature and the thermal oscillations of the molecules. There are 2 figures, 4 references, 3 of which are Slavic.

Card 2/3

20-6-17/48

Polarization Diagrams of the Luminescence of the Monocrystals of Stilbene

ASSOCIATION: Physical Institute imeni P.N. Lebedev, AN USSR - Institute for Crystallography, AN USSR
(Fizicheskiy institut imeni P.N. Lebedeva Akademii nauk SSSR, Institut kristallografii Akademii nauk SSSR)

PRESENTED: April 5, 1957, by A.V. Shubnikov, Academician

SUBMITTED: March 27, 1957

AVAILABLE: Library of Congress

Card 3/3

SOV/51-5-5-12/23

AUTHORS: Varfolomeyeva, V.N. and Zhevandrov, N.D.

TITLE: Spatial Distribution of Polarization of Luminescence from Stilbene and Tolane Crystals (Prostranstvennoye raspredeleniye polyarizatsii lyuminestsentsii kristallov stil'bena i tolana)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 5, pp 571-581 (USSR)

ABSTRACT: In contrast to polarization in isotropic solutions, polarization of fluorescence of molecular crystals does not depend on anisotropy of excitation. The only spatial dependence of polarization in molecular crystals is the dependence on the angle between the direction of absorption and some other fixed direction. The graphical representation of this dependence is called a polarization diagram. The authors obtained polarization diagrams for luminescence of spherical crystals of stilbene and tolane. In order to excite a crystal only at the centre of the sphere, the spheres were cut in half along certain crystallographic planes and the plane of the cut was covered with a diaphragm so that only a small area of 1-2 mm diameter was excited at the centre of the sphere. The spheres themselves were from 5 to 10 mm in radius. The crystals were excited on the plane side and polarization of luminescence was measured on the spherical side.

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Spatial Distribution of Polarization of Luminescence from Stilbene and Tolane Crystals

Polarization diagrams were obtained using apparatus based on a goniometer and a Cornu polarimeter. Luminescence was excited using the 365 mμ Hg line. The hemispherical samples were prepared from stilbene and tolane monocrystals. The directions of the optical axes were found by the method described by Shubnikov (Ref 2) and these directions were used to prepare the samples in such a way that the hemispheres were cut along one of the following planes: (1) the plane of the optical axes, (2) the plane normal to the bisector of the acute angle between the optical axes, and (3) at right-angles to the bisector of the obtuse angle between the optical axes. Figs 1 and 7 show the coordinates used in calculation of polarization diagrams (Fig 1) and depolarization by thermal vibrations (Fig 7). Figs 2 and 3 give the calculated polarization diagrams for stilbene and tolane respectively. Figs 4 and 5 give the experimental polarization diagrams for stilbene and tolane respectively. Fig 6 gives the polarization diagrams calculated for the case of an oscillator oriented along the transverse axis of the stilbene molecule. The degree of polarization

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was also measured for certain other crystals such as anthracene which contained some naphthacene (Fig 8), 1,10-dibromoanthracene and 3-dimethylamino-6-aminophthalimide at room temperature, and at the temperature of liquid nitrogen. Within the experimental error polarization is the same at both temperatures. Analysis of all the polarization diagrams shows that both localized and free excitons take part in the process of luminescence. The relative intensity and polarization for free excitons was obtained for anthracene, which contained naphthacene (Fig 9). There are 9 figures and 16 references, 9 of which are Soviet. [illegible]

SUBMITTED: November 18, 1957

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1. Stilbene crystals--Luminescence 2. Tolane crystals--Luminescence
3. Luminescence--Polarization 4. Mathematics