

SOV/120-58-2-18/57

AUTHORS: Akishin, P. A., Vinogradov, M. I., Danilov, K. D., ~~Lavkin~~
N. P., Martinson, Ye. N., Rambidi, N. G. and Spiridonov, V. P.

TITLE: An Electronograph for Studying the Structure of Molecules of
Non-Volatile Compounds (Elektronograf dlya issledovaniya
stroyeniya molekul trudnoletuchikh soyedineniy)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 2, pp 70-74
(USSR)

ABSTRACT: One of the most widely used and effective methods of
studying the geometrical structure of complex molecules is
the electronographic method. The method is based on the
study of the diffraction of fast electrons by the vapour of
the substance under investigation. In the literature there
is very little information on the geometry of the molecules
of non-volatile compounds. This is due to experimental
difficulties associated with such studies. Maxwell and his
collaborators have described an electronograph with a high
temperature evaporator which was used to study the structure
of molecules of substances whose boiling points were 1200-
1400°C. The present paper describes an electronograph which

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SOV/120-58-2-18/37

An Electronograph for Studying the Structure of Molecules of Non-Volatile Compounds.

was constructed in 1954 and can be used for substances with boiling points up to 2500°C. The instrument consists of an evaporator in which the substance under investigation is vapourised by electron bombardment, an electron gun and a special "sector device". Attempts were made and are described of preventing the radiation from the evaporator from reaching the photographic plate when studies are made of the diffraction pattern produced by vapours at high temperatures. The most effective way of screening the emulsion was by covering it with a thin layer of black ink which can be washed off before developing. The electronograph described in the present paper has been used to determine the configuration and geometrical parameters of 30 molecules of non-volatile halides of elements of the second group in the periodic table, many of which have boiling points in the range 1500-2500°C. These data were given in Refs.4-11. There are 5 figures, 1 table and 11 references, of which 2

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SOV/120-58-2-18/37
An Electronograph for Studying the Structure of Molecules of
Non-Volatile Compounds.

are English and 9 are Soviet.

ASSOCIATION: Khimicheskiy fakul'tet MGU (Department of Chemistry
of the Moscow State University)

SUBMITTED: July 11, 1957.

Card 3/3

1. Complex compounds
2. Molecules--Structural analysis
3. Electronic equipment--Applications

SOV/48-23-4-21/21

AUTHORS: Levkin, N. P., Kushnir, Yu. M.

TITLE: A New Model of a Universal Electronograph With 100 kv With an Armored Supply (EG-100A) (Novaya model' universal'nogo elektronografa na 100 kV s bronirovannym vvodom (EG-100A))

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 4, pp 531 - 536 (USSR)

ABSTRACT: The instrument is destined for the investigation of solid and gaseous substances by means of electron diffraction. First, the parameters of the instrument are given and the formula for the computation of the resolution is written down. As an example, figure 1 shows a microphotogram taken with this instrument. The chief parts of the latter are the electron gun with 100 kv accelerating voltage and armored supply as well as the two magnetic lenses. Figures 2 and 3 depict and describe the construction, as well as the adjustment of the individual parts. A large object chamber having a length of 400 mm and one 200 mm long make it possible to place the object at distances of 350 mm or 400 mm, respectively, from the image screen. A mechanism allows the object to be shifted in a vertical plane to the optical axis. The camera and the vacuum system are accurately described.

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A New Model of a Universal Electronograph With 100 kv SOV/4E-23-4-21/21
With an Armored Supply (EG-100A)

Among the electrical facilities special mention is made of the oxide cathode and the coreless transformer, the latter because of its little disturbing magnetic field. The high voltage exhibits the steps of 40, 60, 80 and 100 kv and its fluctuation amounts to 0.003%-0.006%. The stabilization of the high voltage and of the lens current is illustrated in short and the compensation of the electron background appearing on the image screen during the investigation is described. A few structural details are discussed and relative pictures are shown. The conclusion of the paper is devoted to the investigation of the gas molecules and volatile substances. There are 7 figures and 2 Soviet references.

Card 2/2.

USCOMM-DC-61,352

LEVKIN, N.P.; ALEKSEYEV, N.V.

Use of the EG-10A electron diffraction apparatus for studying the structure of molecules. Zhur'strukt.khim. 4 no.3:327-330 My-Je '63. (MIRA 16:6)

1. Institut elemento-organicheskikh soyedineniy AN SSSR.
(Electron diffraction apparatus) (Chemical structure)

KUSHNIR, Yu.M.; KABANOV, A.N.; LEVKIN, N.P.; CHERNOVA-STOLYAROVA, Ye.Ye.

Electron spectrograph for the EG-100A electron diffraction camera.
Izv. AN SSSR. Ser. fiz. 27 no.9:1196-1198 S '63. (MIRA 16:9)
(Electron diffraction apparatus) (Electrons—Spectra)

GAYENKO, A., inzhener-podpolkovnik; LEVKIN, V., mayor; KLIMANOV, M., inzhener-
mayor

Greater attention to practice. Tekh. i vooruzh. no.2:40-43
F '64. (MIRA 17:9)

LEVKIN, V.G. [L'ovkin, V.H.]

Unit for cementing, drying and cutting of binding. Leh. prom. no.3:
48-49 JI-S '64. (MIRA 17:10)

4 / 025-00 EWT(1)/EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EPA(w)-2/EWP(b)/EWP(t) IJP(c)
ACC NR: AP5028110 JD/GG/WB SOURCE CODE: UR/0048/65/029/011/2017/2019

AUTHOR: ^{55 44} Guyenok, Ye.P.; ^{55 44} Kudzin, A.Yu.; ^{55 44} Levkina, A.P.

ORG: ^{55 44} Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet)

TITLE: Peculiarities of polarization of ^{55 44} barium titanate single crystals having double hysteresis loops ^{55 44} Report, Fourth All-Union Conference on Ferro-electricity held at Rostov-on-the Don 12-16 September 1964

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 11, 1965, 2017-2019 ^{44 55}

TOPIC TAGS: ^{21, 44, 55} ferroelectric crystal, single crystal, ^{21, 44, 55} dielectric constant, electric domain structure, electric field, ^{21 41 55} barium titanate, electric polarization, hysteresis loop ^{21 21}

ABSTRACT: Polarization and domain structure have been investigated in BaTiO₃ single crystals doped with 0.35 mole % of Ta₂O₅ and grown from solution in a KF melt. Such crystals are known to exhibit double hysteresis loops. At room temperature the investigated crystals had a characteristic fine domain structure consisting only of a-domains. Regions of c-domains appeared when the temperature was raised above about 70°C. When the specimens were cooled from a temperature somewhat above the Curie point, the c-domains persisted to a temperature lower than that at which they appeared on heating, and the characteristic fine a-domain structure was recovered only after the crystals had been held at room temperature for several hours. The dielectric con-

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Card 2/2

LEVKINA, A. S.

"The So-called Pseudocarcinomatous Lymphangitis of the Lung", Arkh. Patol., 10,

No. 1, 1948.

Mbr., Chair Pathological Anatomy, 2nd Moscow Med. Inst. Im. Stalin, -1947-.

LEVKINA, A. S.

"Muscles Skeletal of an Emaciated Case due to a Wound Case" Arkh. Patol. XI No. 2, 1949.

Moscow, Mbr., Chair Acad. Sci. USSR, -- Second Moscow Med. Inst. imeni I. V. Stalin)

-1947--

LEVKINA, A.S.

Changes in the skeletal muscles in chronic exhaustive diseases.
Arkh. pat., Moskva 14 no.4:67-70 July-Aug 1952. (GLML 23:2)

1. Of the Department of Pathological Anatomy (Head -- I. V. Davydovskiy,
Active Member AMS USSR), Second Moscow State Medical Institute imeni
I. V. Stalin.

PIMENOVA, Ye.M.; LEVKINA, A.S.

Traumatic rupture of renal hypernephroma. Khirurgiia no.9:64 8 '53.
(MLRA 6:11)

1. Iz fakul'tetskoy khirurgicheskoy kliniki sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta na baze Klinicheskoy bol'nitsy Zhdanovskogo rayona. (Kidneys--Tumors)

LEVKINA, A.S. (Moscow); DAVYDOVSKIY, I.V., deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, direktor.

Problem of pathology of the vascular system in man. Arkh.pat. 15 no.4:52-56
Jl-Ag '53. (MLRA 6:11)

1. Kafedra patologicheskoy anatomii 2-go Moskovskogo gosudarstvennogo meditsinskogo instituta im. I.V.Stalina. 2. Akademiya meditsinskikh nauk SSSR (for Davydovskiy). (Blood vessels--Diseases)

LEVKINA, A.S.

Vascular changes in the vermiform appendix of the periarteritis nodosa type. Arkh.pat. 18 no.7:76-84 '56. (MLRA 10:1)

1. Iz kafedry patologicheskoy anatomii (zav. - deystvitel'nyy chlen AMN SSSR prof. I.V.Davydovskiy) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni Stalina.

(APPENDICITIS, pathology,

periarteritis nodosa-like vasc. changes in excised specimens (Rus))

(PERIARTERITIS NODOSA,

vasc. changes simulating periarteritis nodosa in specimens excised in appendicitis (Rus))

TKACHEV, V.V., inzh.; SHOLENINOV, V.M., inzh.; Priruchni uchastiya:
KONSTANTINOV, V.G.; LEVIN, L.Ya.; GRIGORIYEVYKH, G.F.;
ZAKHAROV, V.N.; ZHDANOV, L.A.; PUZANOV, N.A.; SUKHANOV, V.I.;
VASIL'YEV, A.N.; ZHELEZHAYA, P.T.; TEGARINOVA, Ye.A.; LEVKIN,
A.S.; MOKIYEVSKIY, N.M.; SHAKHALOV, V.; SMIRNOV, A.I.

Developing the technology of producing a high-basicity
open-hearth sinter. Stal' 25 no.8:683-686 Ag '65.

(MIRA 18:8)

1. Cherepovetskiy metallurgicheskiy zavod (for Tkachev,
Sholeminov).

SADYKOV, A.S., prof.; LEVKINA, A.V., assistant

Changes in the capacity for work of skeletal muscles under the influence of the stimulation of esophageal interoceptors. Uch. zap. Tashk. gos. ped. inst. 35 no.1:5-9 '63.

(MIRA 17:9)

~~LEVKINA, L.I.~~
LEVKINA, L.I.

Perforated ulcer of the duodenum in a 3-year-old girl. Sov.med.
21 no.11:31-32 N '57. (MIRA 11:3)

1. Iz kafedry obshchey khirurgii (zav.-doktor med.nauk V.V.Popov)
Chitinskogo meditsinskogo instituta (dir.-dotsent Yu.D.Ryzhkov)
i khirurgicheskoy bol'nitsy Zabaykal'skoy zheleznoy dorogi (nach.
L.F. Zarembo).

(PEPTIC ULCER, in inf. and child
perf., duodenal in 3-year-old girl)

LEVKINA, L., mladshiy nauchnyy sotrudnik

Effective mixture. Zashch. rast. ot vred. i bol. 10
no.8:50-51 '65. (MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet.

AUTHORS:

Levkina L.M.
Gorlenko, M. V., Chinnov, Ye. A., Levkina, L. M., 20-3-45/46

TITLE:

A Biochemical Method for Determining the Parasitism in Fungi From the Genera Alternaria and Cladosporium. (Biokhimicheskiy metod opredeleniya parazitizma u gribov iz rodov Alternaria i Cladosporium)

PERIODICAL:

Doklady AN SSSR, 1957, Vol. 116, Nr 3, pp. 514-516 (USSR)

ABSTRACT:

Investigation results concerning the capacity of the genera of these fungi to accumulate amido nitrogen in the culture-medium at the expense of the pepton contained therein, are given in this report. The parasitism of these two fungi is different. Concerning the Fusarium species, and inverse dependence between the quantity of the said nitrogen, and the parasitic activity of the species of the fungus was stated in previous elaborate studies. In this way the grade of parasitism of these two species of fungi could be expressed in the laboratory according to the character of their nitrogoen- alimentation. Now the same operations were carried out with the genera of fungi referred to in the title. Amongst 5 species Alternaria (table 1) parasitic species accumulate up to 6 mg amido nitrogen in the culture-medium, facultative parasites compile up to 12, whereas the saprophytic species accumulate still more of it. A more intensive exploitation of the nitrogen by the parasites is apparently connected with the better accomodation of

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A Biochemical Method for Determining the Parasitism in Fungi From the 20-3-45,46
Genera Alternaria and Cladosporium.

their fermentation apparatus to the utilization of amino acid. The study of the forms of Alternaria tenuis Nees, isolated from various substrates, has shown that this species is physiologically non-homogeneous. The forms from germinating seeds approach more the parasites, whereas the forms from inactive "substrate" completely disclose their saprophytic nature. Therefore Alt. tenuis is a collective species. The evolution of the physiological properties is ahead of the morphological evolution, the latter of which is more conservative with fungi. Analogous data on 5 Cladosporium species are shown in table 2. In this case too, the difference in the accumulation of nitrogen between the parasites and saprophytes is remarkable. The facultative parasites used in this test were artificially cultivated long before and are supposed to have partly lost their parasitological properties. The results are therefore less clear. The physiological characteristic feature of the parasitism of this group of fungi partly agrees with the characteristic of Krangauz (reference 2) with respect to morphological symptoms. Based upon the differentiation of parasitism, achieved by the above method, a more general significance of this phenomenon can be accepted and applied for the same purpose in the case of other groups of fungi. However, specific classifications of values had to be stipulated for the species of each genus. There are

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A Biochemical Method for Determining the Parasitism in Fungi 20-3-45/46
From the Genera Alternaria and Cladosporium.

2 tables and 4 references, all of which are Slavic.

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

PRESENTED: June 28, 1957, by A. L. Kursanov, Academician

SUBMITTED: June 27, 1957

AVAILABLE: Library of Congress

Card 3/3

GORLENKO, M.V.; LEVKINA, L.M.; USPENSKAYA, G.D.; CHINNOV, Ye.A.

Investigation of the physiology and biochemistry of some
parasitic fungi; evolution of the parasitism of fungi.
Vest. Mosk. un. Ser. 6: Biol., pochv. 17 no.3:49-55 My-Je '62.
(MIRA 15:6)

1. Kafedra nizshikh rasteniy Moskovskogo universiteta.
(FUNGI, PHYTOPATHOGENIC)

BARANOV, V.I.; PAVLOTSKAYA, F.I.; FEDOSEYEV, G.A.; TYURYUKANOVA, N.B.;
RODIONOVA, L.M.; BABICHEVA, Ye.V.; ZATSEPINA, L.N.; VOSTROVA, S.Z.;
Prinimali uchastiye: YEMEL'YANOV, V.V.; BELYAYEVA, L.I.; LEVKINA, L.I.;
MOLCHANOVA, I.V.

Distribution of Sr⁹⁰ on the surface horizon of soils of the Soviet
Union during 1959-1960. Atom. energ. 18 no.3:246-250 Mr '65.
(MIRA 18:3)

L 8728-65 EWT(m)/EPF(c)/ENP(j)/T Pc-4/Pr-4 ASD(p)-3/ASD(m)-3/RAEM(i)

DJ/RH

ACCESSION NR: AP4045006

S/0065/64/000/009/0053/0056

AUTHOR: Kobzova, R. I.; Tubyanskaya, G. S.; Operina, Ye. M.;
Levkina, N. K.TITLE: Stabilization of polysiloxanes by antioxidant additives

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 9, 1964, 53-56

TOPIC TAGS: polydimethylsiloxane, polydimethylsiloxane grease, anti-oxidant, antioxidant additive, additive effectiveness

ABSTRACT: The possibility of prolonging the life and raising the upper temperature limit for the use of polydimethylsiloxane oils and greases based on them, by means of antioxidant additives, has been studied. The relative effectiveness of additives was evaluated from the gelation time of the oils. The experiments, which consisted in determining the weight loss and viscosity of the oils, were conducted with PMS-190 and PMS-400 silicone oils and with such antioxidants as phenyl-1-naphthylamine phenothiazine, 1,4-dimesidinoanthraquinone, Ionol, bisphenol, pyrene, fluoranthrene, coronene, and dilauryl selenide. The most effective antioxidant additive was found to be

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L 8728-65
ACCESSION NR: AP4045006

2
1,4-dimesidinoanthraquinone, 0.5% of which increased the thermal-oxidative stability of PMS-100 at 300C by 1600% and at 250C by 4400%. It was also shown that the combination of two or more antioxidant additives can increase their mutual effectiveness, that the effectiveness of certain additives passes through a maximum with an increase in their concentration, and that the use of additives in amounts over 3% is not expedient. The poor solubility of additives in polydimethylsiloxane oils does not hinder the use of additives in greases, since the thickeners prevent their sedimentation and since, in service at higher temperatures, the additive dissolves in the liquid phase of the grease. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: VNIINP

SUBMITTED: 00

ATD PRESS: 3111

ENCL: 00

SUB CODZ: FP

NO REF SOV: 000

OTHER: 012

Card 2/2

L 2271-66 EWT(m)/EPP(c)/EWP(j)/T RM/IJ

ACCESSION NR: AP5022227

UR 0191/65/000/009/0035/0037

67U.84:678.048.9

50
49
B

AUTHOR: ⁴⁴ Kobzova, R. I.; ⁴⁴ Levkina, N. K.; ⁴⁴ Kudryavtsev, A. S.; ⁴⁴ Savich, I. A.; ⁴⁴ Oparina, Ye. M.; ⁴⁴ Tubyanskaya, G. S.

TITLE: ⁴⁴ Effect of some complex compounds on the stability of polydimethylsiloxanes to thermal oxidation

SOURCE: ⁴⁴ Plasticheskiye massy, no. 9, 1965, 35-37

TOPIC TAGS: ⁴⁴ polydimethylsiloxane, silicone lubricant, antioxidant additive, chelate compound, Schiff base

ABSTRACT: The effect of certain complex compounds of copper, cobalt, nickel, lead, and iron with various Schiff bases on the stability of liquid polydimethylsiloxane polymer PMS-100 to thermal oxidation was investigated. All the compounds studied increased the stability of polydimethylsiloxane, the most effective being N,N'-bis(2-hydroxy-1-naphthylidene)-1,2-diaminoethane, which increased the stability by a factor of 9. The effectiveness of the complex compounds depends to a considerable extent on the nature of the metal and choice of the addend. The effect of metal is displayed most clearly in the case of N-(2-hydroxybenzylidene)-2-aminophenol, which forms a very effective stabilizing compound with

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L 2271-66

ACCESSION NR: AP5022227

copper only; the effect of the addend is most pronounced in the case of complexes containing nickel. It is concluded that the use of chelates as high-temperature antioxidants for silicone oils deserves further investigations. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, GC

NO REF SOV: 004

OTHER: 001

Card 2/2

LWT(m)/EWP(j)/T DJ/RM

ACC NR: AP6003434

(A)

SOURCE CODE: UR/0065/66/000/001/0052/0054

AUTHOR: Kobzova, R. I.; Tubyanskaya, G. S.; Oparina, Ye. M.; Levkina, N. K.

ORG: VNII NP

68
B

TITLE: Stabilization of polyethylsiloxane fluids by additives

55

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 1, 1966, 52-54

TOPIC TAGS: silicone lubricant, thermal ~~oxidative~~ stability, antioxidant additive

ABSTRACT: The effectiveness of antioxidant additives such as phenyl-1-naphthylamine, Ionol, or dilauryl selenide as oxidation inhibitors for the polyethylsiloxane fluid, lubricant 6 (TUYeU-118-55), has been studied for the purpose of prolonging service life and increasing service temperature of the lubricant. The criterion of thermal-oxidative stability of lubricant specimens with or without additives was gelation time at 200 and 250C. The best results were attained with dilauryl selenide; at 250C addition of 5% of this compound increases the thermal stability of the lubricant by a factor of 25. The effectiveness of the additives tested improves with increasing concentration (5% max) and drops with increasing temperature. In other tests it was found that the same additives do not produce the same effect in individual silicone fluids. For example, oxidation inhibitors of PMS-100 polymethylsiloxane fluid such as cyclopentadiurylcarbonylmanganese, selenophene derivatives, or ferrocene

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UDC: 665.521.5:547.28

L 13200-66

ACC NR: AP6003434

are ineffective in lubricant 6. Four-ball apparatus tests showed that additives which improve the thermal-oxidative stability of lubricant 6 under static conditions also improve its performance in friction units. Orig. art. has: 3 tables. [BO]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 007/ ATD PRESS: 485

jw
Card 2/2

L 38217-66 EWT(m)/EWP(j)/T DJ/RM

ACC NR: AP6025463

SOURCE CODE: UR/0080/66/039/007/1638/1641

AUTHOR: Kobzova, R. I.; Oparina, Ye. M.; Levkina, N. K.; Magdesiyeva, N. N.; Yur'yev, Yu. K.

52
51
B

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet); VNI NP

TITLE: β -Diketones and azomethines of the selenophene series: oxidation inhibitors for silicone fluids

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 7, 1638-1641

TOPIC TAGS: antioxidant additive, silicone lubricant, selenophene, selenium compound

ABSTRACT: A study has shown β -diketone and azomethine derivatives of selenophene to be effective thermal-oxidation inhibitors for silicone fluids used as lubricating oils and as dispersion media for lubricating greases. Selenophene derivatives were of interest because compounds containing a selenium atom in a ring are more thermally stable than the conventional antioxidant dilauryl selenide. Nine compounds were tested for antioxidant effectiveness (criterion, gelation time) in various silicone fluids at 300C. For polymethyl(chlorophenyl)siloxane (PMKhFS), the most effective antioxidant was (2-selenophenecarbonyl)acetone, and for polymethylsiloxane (PMS-100) and polymethylphenylsiloxane (FM-1322/300), the most effective were N-salicylidene-

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UDC: 546.3-19:66.022.37

LEVKINA, T. I.

"The Acidity of Peat Soil and Methods of Neutralizing It for Cultivation Purposes."
Cand Biol Sci, Leningrad Order of Lenin State U imeni A. A. Zhdanov, Leningrad, 1955.
(KL, No 16, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended
at USSR Higher Educational Institutions (16).

LEVKINA, T.I.

Problems of soil acidity and the use of local carbonaceous
rocks as neutralisers. Trudy Kar. fil. AN SSSR no.9:68-91

'57.

(MIRA 12:1)

(Soil acidity) (Carbonates (Mineralogy))

LEVKINA, T.I.

~~Study of the acidity of Peat soils. Izv.Kar. i Kol'.fil. AN SSSR~~
no.2:100-103 '59. (MIRA 12:11)

1. Institut lesa Karel'skogo filiala AN SSSR.
(Peat soils) (Soil acidity)

LEVKINA, T.I.

Seasonal dynamics of chemical properties of the soil under spruce-
whortlberry forests and motley-type birch groves in the "Kivach"
Preserve. Trudy Kar.fil.AN SSSR no.34:23-49 '62. (MIRA 16st).
(Kondopoga District--Forest soils)

LEVKINA, T.I.

Method of sampling forest litter for studying its chemical
properties. Trudy Kar.fil.AN SSSR no.34:50-57 '62. (MIRA 16:1)

(Kondopoga District--Soils--Analysis)
(Forest litter)

LEVKINA, T.I.; PEREVOZCHIKOVA, Ye.M.

Copper, molybdenum, zinc, manganese, and cobalt content of
some soil types in Prionezhskiy and Olonets Districts of the
Karelian A.S.S.R. Uch. zap. Petrozav. gos. un. 12 no.3:
111-120 '64. (MIRA 19:1)

1. Kafedra neorganicheskoy khimii Petrozavodskogo gosudarstvennogo
universiteta imeni O.V. Kuusinenena.

KRINCHIK, Ye.P.; LEVKO, A.N.

Device for the automatic tape recording of the binary sequence
of auditory stimuli. Vop. psikhol. 11 no.2:155-157 Mr=Ap '65.
(MIRA 18:6)

1. Otdeleniye psikhologii Moskovskogo gosudarstvennogo
universiteta.

AKSYUK, A.F., kand.med.nauk; POLTORAK, S.A., inzh.; LEVKO, A.P., tehnik

Electronic device for the determination of the rate of reflex reactions simultaneously in several subjects. Gig.i san. 26 no.12:47-50 D '61. (MIRA 15:9)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny imeni F.F.Erismana.

(REFLEXES) (PHYSIOLOGICAL APPARATUS)

LEVKO, I., inzh.; ZASLAVSKIY, Ye., arkh.

Housing construction carried out by White Russian enterprises.

Zhil.stroi. no.7:8-9 '58.

(MIRA 12:6)

(White Russia--Apartment houses)

ЛЕВКОПУЛО А.И.

LEVKOPULO, A.I.

High capacity thermal power station in the Kustanay industrial district. Teploenergetika 4 no.8:83-86 Ag '57. (MIRA 10:9)

1. Glavnyy inzhener proyekta Gosudarstvennoy rayonnoy elektrostantsii Kustanayskogo industrial'nogo uzla.
(Kustanay Province--Electric power plants)

AUTHOR: Levkopola, A.Kh., Engineer. SOV/96-58-7-12/22

TITLE: A super-high-output thermal electric power station. (Sverkhmoshchnaya teplovaya elektrostantsiya)

PERIODICAL: Teploenergetika, 1958, No.7, pp. 48-55 (USSR)

ABSTRACT: The Moscow division of the trust Teploelektroproyekt was set the task of designing a regional power station of 2400 MW to cover the base load of an entire region. The reasons why it should be possible to make 600-MW sets in the near future are first briefly explained. The limiting power of the station was determined by the available water supply. The station will be a purely condensing one, supplying only electrical loads. Steam will be tapped only for fuel drying and for heat supply to the local housing. The electrical output will all be delivered at voltages of 220, 400 and 500 kV. The station will operate on brown coal with a calorific value of 3000 kcal/kg having 30% moisture-and 16% ash-content. This article is restricted to a description of the most important solutions adopted and to a brief description of the actual station without going into all the detail. The use of critical and super-critical steam conditions depends on the availability of special steels. A 300-MW turbine for steam conditions of 300 atm and 650/565/565°C is now in the design stage. The use of such steam conditions would result in an economy of about 9%. For purposes of the design, economic and technical comparisons

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A super-high-output thermal electric power station.

SOV/96-58-7-12/22

were made between sets with steam conditions at the turbine of either 300 atm 650°C, with two gas reheats to 565°C at pressures of 65/60 atm and 15/13 atm, or, alternatively, 220 atm 580°C with one reheat to 565°C at 43/29 atm using perlitic steel. In preliminary calculations on an SKK-300 turbine the Khar'kov Turbo-Generator Works took the blade length of the last stage of the condensing turbine as 1390 mm at 1500 r.p.m. This and other draft designs have shown that a 600-MW turbine can be made with the same outlet velocity losses for steam conditions of 300 atm, 650/565/565°C and for 220 atm 580/565°C. The SKK-600 turbine would have somewhat smaller last stages than the SVK-600. The steam conditions governed the choice of boilers with forced circulation. It was considered possible to make boilers of 1700-1900 tons/hr output; the problem, difficult in any case, was rendered more so by the poor quality of the fuel. The best type of boiler was considered to be that of the All-Union Thermotechnical Institute with high ash-removal, consisting of a vertical cylindrical pre-furnace, with combustion and cooling chambers designed for pulverised fuel. Because of the high pressures involved, steam drive was best for the feed-pumps, the power of which would range from 23.54 MW for turbine SKK-600 to 9.54 MW for turbine SVK-300. Steam drive with variable-speed turbines was considered more reliable than electric drive with hydraulic couplings. Eight variants of

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feed-pump drive were considered. Centralised fuel preparation was found best. As the fuel consumption is 12 million tons a year, it had to be decided whether it was best to locate the station near the fuel and bring the water to it, or vice versa; at the time it was found best to locate the station near the water, but this is now being reconsidered. The design variants considered were:

- (1) 4 turbines SKK-600 (300 atm 650/565/565°C) and 4 direct-flow boilers of 1690 tons/hr 655/570/570°C.
- (2) 4 turbines SVK-600 (220 atm 580/560°C) and 4 direct-flow boilers of 1900 tons/hr 580/570°C.
- (3) 4 turbines SKK-300 and 3 (21) turbines SKK-600, 4 direct-flow boilers of 845 tons/hr and 2 of 1690 tons/hr.
- (4) 4 turbines SVK-300 (220 atm 580/565°C) and 2 turbines SKK-600 (300 atm 650/565/565°C) with 4 direct-flow boilers of 950 tons/hr and 2 of 1690 tons/hr.

The schematic thermal diagram of a unit is given in Fig.2. Wet ash-arresters are proposed with hydraulic ash-removal. A number of different station arrangements were considered, some of which are shown in Figs.3. and 4. All arrangements used outdoor installation of induced-draught fans and ash-arresters and transverse arrangement

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A super-high-output thermal electric power station.

SOV/90-58-7-12/22

of turbo-alternators. The preferred arrangement uses turbines SVK-600, inverted U semi-outdoor boilers and central ash-preparation, with a crane in the boiler house and an indoor machine hall. The main sets are arranged as units, each comprising one boiler, one turbine and all auxiliaries, one feed-pump of 2060 m³/hr at a head of 290 atm, and a reserve electrically-driven pump of half this output. One control-board serves two units. The fuel consumption is 1700/1800 tons/hr; fuel is unloaded by three wagon tipplers. The fuel preparation equipment is described. The cooling-water system is direct flow with a cooling pond, fed from a river on which two reservoirs would be constructed. The main data of the four variants that were fully worked out are given in Table.2, which shows that the variant adopted gives the lowest cost per kW, but the variant with 4 turbo-generators SKK-300 and two SKK-600 is competitive. With stations of this size the installed cost per kW is 30-35% less than for a station of 1200 MW, the staff required is relatively smaller and the main building is relatively much smaller. A considerable number of very large power stations will be required in the 7th and 8th Five-Year Plans in which it will be practicable to install sets of 300 and 600 MW with boilers of up to 1900 tons/hr. As the development of this equipment will take some time, manufacturers and designers should start work forthwith. There is not much difference between the cost of various arrangements of the main

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A super-high-output thermal electric power station.

SOV/96-58-7-12/22

building and the choice should be based on operating convenience. The first stage of ash-arresting would be in the furnace cyclones, which retain 80 - 85% of the ash; the second stage would use wet ash-arresters with an efficiency of about 92%, giving an overall efficiency of arrest of about 98½%. Because of this high efficiency and because the locality is sparsely populated the stack height would be 150 m. Only limited fuel storage would be required because the open-cast workings are nearby. There are 2 tables and 5 figures.

■ In this article and other Soviet literature, extensive use is made of turbine designations such as SVK-300 or SKK-600, where SVK stands for super-high-pressure, condensing SKK for super-critical-pressure condensing and the number 300 or 600 indicates the megawatts output.

ASSOCIATION: Teploelektroproyekt

1. Steam power plants - Design
2. Steam power plants - Equipment
3. Electric power production - USSR

Card 5/5

ЛЕВКОВ, А.

"In Memory of Aleksandr Sergeevich Frotopopov," *Khirurgiya*, No. 4, 1949.

BALABANOV, Krum, professor; LEVKOV, Aleksandur

Treatment of cutaneous tuberculosis and of tuberculous epididymitis with new drugs. Izv.med.inst.Sofia 11-12:477-507 1955.

1. Koshna klinika, (dir.: prof. L. Popov) pri Visshia meditsinski institut V. Chervenkov-Sofia.

(TUBERCULOSIS CUTANEOUS, therapy, chemor.)

(TUBERCULOSIS, MALE GENITAL, therapy, epididymis, chemother.)

LEVKOV, A.A.

Maduroomycosis disease. Vest.derm.i ven. 34 no.3:37-39 My-Je
'60. (MIRA 13:10)

(MYCETOMA)

LEVKOV, A.A.; FUNK, V.I.; KATSNEL'SON, I.I.

Observations on Reiter's syndrome. Vest. dermat. i ven. 34 no.7:68-70 '60.

(MIRA 13:12)

(REITER'S DISEASE)

LEVKOV, A.A.

Control of fungus diseases in Magnitogorks from 1956 to 1959.
Vest.derm.i ven. [35] no.2:64-69 F '61. (MIRA 14:3)

1. Iz Magnitogorskogo gorodskogo i mezhrayonnogo kozhno-venero-
logicheskogo dispansera (glavnyy vrach Yu.A. Broslavskiy).
(MAGNITOGORSK—MEDICAL MYCOLOGY)

KATSNEL'SON, I. I.; LEVKOV, A. A.

Deep mycosis with skin lesions of the mycetoma type. Vest. dermat. i ven. no.4:78-80 '62. (MIRA 15:4)

1. Iz mediko-sanitarnoy chasti tresta "Magnitostroy" (glavnyy vrach Ye. N. Yermakova) i Magnitogorskogo gorodskogo i mezhrayon-nogo kozhno-venerologicheskogo dispansera (glavnyy vrach Yu. A. Broslavskiy)

(MYCETOMA)

LEVKOV, A.S.

Photodocumentation in the dermatologist's work. Vest. derm. i
ven. 37 no.5:59-61 My '63. (MIRA 17:5)

1. Ufimskiy kozhno-venerologicheskii institut (dir. P.N. Shishkin,
nauchnyy rukovoditel' G.E. Shinsky) Ministerstva zdorovokhraneniya
RSFSR.

LEVKOV, A.A.

Experience in the treatment of trichomycoses in rural communities
with epilin plaster. Vest. dermat. i ven. 38 no.10:56-61 0 '64.
(MIRA 18:7)

1. Ufimskiy kozhno-venerologicheskii institut (direktor - P.N.
Shishkin; nauchnyy rukovoditel' G.E. Shinskiy) Ministerstva zdравo-
okhraneniya RSFSR.

SHINSKIY, G.E.; LEVKOV, A.A.; KALAMKARYAN, A.A.

Benign lymphadenosis of the skin. Vest. dermat. i ven. no.1:
9-16 '65. (MIRA 18:10)

1. Ufimskiy nauchno-issledovatel'skiy kozhno-venerologicheskiy
institut (dir. P.N. Shishkin) Ministerstva zdravookhraneniya
RSFSR i otdel dermatologii (zav.- prof. N.S. Smelov) Tsentral'nogo
nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta
(dir.- N.M. Turanov) Ministerstva zdravookhraneniya SSSR, Moskva.

LEVKOV, A.A.

Role of epilin in the control of trichomycoses in rural areas.
Vest. dermat. i ven. no.3:65-69 '65. (MIRA 18:11)

1. Ufimskiy kozhno-venerologicheskiy institut (direktor P.N. Shishkin; nauchnyy rukovoditel' - G.E. Shinskiy) Ministerstva zdravookhraneniya RSFSR.

GUBIN, N.I.; ZAGAYEVSKIY, Yu.L.; KAZAKOV, L.M.; LEVKON, A.I.; LEVCHENKO, A.I.;
MAL'CHENKO, E.Ya.; KAZAKOV, L.M.; POTAPENKO, G.D.

Overall mechanization and automation of mines in the Tula-ugol'
Combine. Ugol' 40 no.2:1-5 F '65. (MIRA 18:4)

1. Shakhta No.38 (tresta Novomoskovskugol' for Gubin).
2. Trest Krasnoarmeyskugol' (for Zagayevskiy).
3. Kombinat Tulaugol' (for Kazakov).
4. Shakhta No.2 "Bibikovskaya" tresta Uzlovskugol' (for Levkov).
5. Shakhta No.13 tresta Shehokinugol' (for Levchenko).
6. Shakhta No.2 "Zubovskaya" tresta Krasnoarmeyskugol' (for Mal'chenko).
7. Trest Novomoskovskugol' (for Potapenko).

LEVKOV, A.I., inzhener.

Increased speed of wood drying at high temperature. Der.prom. 5
no.2:19-20 F '56. (MLRA 9:5)

1. Maykopskiy mebel'nyy kombinat.
(Lumber--Drying) (Maykop--Furniture industry)

LEVKO, A.I. [Liuko, A.I.], kand.filos.nauk; PALILOV, A.I. [Palilau,
A.I.], kand.biol.nauk

J.B. Lamarck's teaching and role in the development of biology.
Vestsi AN BSSR. Ser.bial.nau. no.2:33-42 '60. (MIRA 13'7)
(LAMARCK, JEAN BAPTISTE, 1744-1829) (BIOLOGY)

LEVKOV, A.N.; NOSKOV, M.M.

Magneto-optical Kerr effect and the structure of surface layer
of mechanically polished metal. Izv. vys. ucheb. zav.; fiz.
no.3:76-81 '58. (MIRA 11:9)

1. Ural'skiy gosuniversitet imeni A.M. Gor'kogo.
(Metallography) (Magneto-optics)

AUTHORS: Leykov, A.N. and Noskov, M.M.

51-4 -3-15/30

TITLE: Magneto-Optical Rotation in Alloys of Nickel with Palladium. (Magnetoopticheskoye vrashcheniye v splavakh nikelya s palladiyem.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.3, pp.378-382 (USSR)

ABSTRACT: The present paper reports measurements on the magneto-optical Kerr effect (rotation of the plane of polarization of light on reflection by ferromagnetics). This effect is due to a difference in the degree of damping inside a magnetized ferromagnetic of electromagnetic waves polarized in two mutually perpendicular directions. Nickel-palladium alloys were studied. These two metals form a continuous series of solid solutions in which the mean distance between atoms increases uniformly with increase of Pd content. The samples were in the form of disks with from 0 to 90 atomic % of Pd. Uniformity of the samples was checked by X-ray analysis of their structure. Ferromagnetic Curie points (Fig.3) of the samples were found to decrease monotonically with increase of Pd content. Mirror surfaces on samples

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51-4 -3-15/30

Magneto-Optical Rotation in Alloys of Nickel with Palladium.

were prepared by mechanical polishing. The apparatus used is shown in Fig.1. An Iceland spar crystal was used to separate the reflected light into two mutually perpendicularly polarized beams. The ratio of the relative intensities of these two beams altered by the Kerr effect had its original value re-established by a rotation of the plane of polarization by means of a cell filled with distilled water and placed inside a solenoid. Current in the solenoid was proportional to the measured Kerr rotation. Re-establishment of the original value of the intensity ratio was observed by balancing a photoelectric bridge with a quadrant electrometer as a null indicator. A mercury lamp was used as the source. The results of photoelectric measurements were partly checked visually. All measurements were made at room temperature. The optical constants of samples were determined by B.Ya. Silant'ev. Measurements of the dependence of the Kerr effect on the alloy composition (Fig.2) were made in a magnetic field of 8000 oersteds in which, in all cases, magnetic saturation was reached and a limiting value of

Card 2/4

51-4-3-15/30

Magneto-Optical Rotation in Alloys of Nickel with Palladium.

the angle of rotation α_s was obtained. At 50-65% Pd the Kerr effect varies slowly with the alloy composition, but on both sides of this region the Kerr effect depends strongly on the amount of Pd in the alloy. Values of the saturation magnetization I_s are given in Fig.3. These values were used to calculate the Kerr constant $R = \alpha_s/I_s$. The dashed curve in Fig.3 gives the values of I_{s0} , which is the saturation magnetization reduced to the absolute zero of temperature. The third curve in Fig.3 gives the dependence of the Curie point on the Pd content. Fig.4 shows the dependence of the optical constants of Ni-Pd alloys on their composition. The strong dependence of the magneto-optical Kerr effect on the Pd concentration seems to contradict the constancy of the atomic magnetic moment and of optical constants of Ni-Pd alloys when the Pd content is varied. The theory given in Ref.1 does not solve this problem, probably because of simplified assumptions on which this theory is based. Furthermore this theory is applicable to

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Magneto-Optical Rotation in Alloys of Nickel with Palladium.

51-4 -3-15/30

pure ferromagnetic metals and not to alloys. A tentative explanation of the dependence of the Kerr constant R on the Pd content in Ni-Pd alloys is sought in the dependence of R on the relative magnetization $y = I_B/I_{B0}$ which falls with increase of Pd in the alloys. In a separate experiment the authors found that annealing in an atmosphere of hydrogen (both Ni and Pd can absorb large quantities of hydrogen) at 700°C affected strongly the Kerr angle of rotation in Ni-Pd alloys with 20, 50 and 57 atomic % of Pd (Fig.5). The effect of hydrogen is reversible; annealing in vacuum at 900°C re-established the original values of the Kerr angle of rotation. There are 5 figures and 7 references, of which 4 are Soviet, 1 German, 1 French and 1 American.

ASSOCIATION: Ural State University, Sverdlovsk.
(Ural'skiy gosudarstvennyy universitet, g. Sverdlovsk.)

SUBMITTED: June 3, 1957.
Card 4/4

1. Nickel-palladium alloys--Reflective effects 2. Magneto-optic rotation

LEVKOV, A. N.: Master Phys-Math Sci (diss) -- "Investigation of the magnetic-optical properties of a system of nickel-palladium alloys". Sverdlovsk, 1959. 11 pp (Min Higher Educ USSR, Ural State U im A. M. Gor'kiy), 150 copies (KL, No 15, 1959, 113)

S/139/62/000/004/018/018
E039/E420

AUTHORS: Levkov, A.N., Shkolina, Ye.I.

TITLE: The magneto-optical properties of alloys in the Ni-Co system in the region of small Co content

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika, no.4, 1962, 182-184

TEXT: The early experiments on the Kerr and Faraday effects are discussed briefly. An experimental investigation of the dispersion and concentration dependence of the Kerr effect in the Ni-Co system is described for Co concentrations up to 22% at. Co. 12 Samples are used to cover this range at 2% intervals. A mirror surface is produced on the samples by mechanical burnishing and polishing and the effect of this on the properties of the surface layers is discussed. The samples are heated at 420°C at a pressure of 10^{-4} mm Hg for 2 hours to restore the crystal structure in the surface layers without destroying the mirror finish. It is shown that the addition of Co to Ni up to 22% At. Co does not change the Kerr effect dispersion significantly in the visible region of the spectrum. A slight increase in the Kerr effect is

Card 1/2

L 39745-66 EWP(1)/EWP(m)/EWP(t) IJP(c) JD/JG/GD-2

ACC NR: AP6005232

SOURCE CODE: UR/0058/65/000/009/E129/E129

AUTHOR: Levkov, A. N.

13

TITLE: Investigation of the ²¹magneto-optical Kerr effect on the Cr-Pt alloy

6

SOURCE: Ref. zh. Fizika, Abs. 9E1074

8, 27 22
5

REF SOURCE: Sb. Fiz. magnitn. yavleniy. Sverdlovsk, 1964, 146-153

TOPIC TAGS: chromium alloy, platinum alloy, Kerr effect, magneto optic effect, ordered alloy, surface property, annealing

TRANSLATION: The measurements were made by the method of photoelectric registration using an alloy of 30 at.% Cr and 70 at.% Pt. It is established that for a partially-ordered alloy grinding and polishing leads to disordering of the surface layer. Subsequent annealing at 600C greatly increases the degree of long-range order, but even slight polishing with dry flet again disorders the surface. An investigation of the frequency dependence of the Kerr effect of a partially ordered alloy shows that the angle of rotation α (which is equal to $+7^\circ$ at 405 nm) decreases linearly with increasing λ , reverses sign at $\lambda = 510$ nm, and becomes equal to -4.5° at $\lambda = 580$ nm. G. Fedorov.

SUB CODE: 20

Curd 1/1 *h/s*

2

LEVKOV, A.N.; SHKOLINA, Ye.I.

Magneto-optical properties of alloys of the system nickel-cobalt in the region of small cobalt concentrations. *Izv. vys. uch. zav.*; fiz. no. 4:182-184 '62. (MIRA 15:9)

1. Ural'skiy gosudarstvennyy universitet imeni A.M. Gor'kogo.
(Magneto-optics) (Nickel-cobalt alloys)

LEVKOV, A.N.; NOSKOV, M.M.; PONOMAREVA, V.I.

Faraday effect in copper oxide and selenium near the main
absorption band. Izv. vys. ucheb. zav; fiz. no.1:171-175 '63.
(MI¹⁴A 16:5)

1. Ural'skiy gosudarstvennyy universitet imeni A.M.Gor'kogo.
(Faraday effect) (Copper oxide) (Selenium)

KNYAZEV, Sergey Ivanovich; LEVKOV, A.N., kand. fiz.-matem. nauk,
red.; KONSTANTINOVA, V.M., assistent, red.;

[Laboratory manual on optics] Fizicheski praktikum po optike;
posobie dlia studentov universitetov, tekhnicheskikh vuzov i
dlia uchitelei srednei shkoly. Sverdlovsk. Pt.3. (Laboratory
work on photometry, plane and spherical mirrors, lenses, the
eye, and optical systems] Prakticheskie raboty po fotometrii,
pe izucheniiu ploskikh i sfericheskikh zerkal, linz, glaza i
opticheskikh sistem. 1962. 446 p. (MIRA 16:6)

1. Sverdlovsk. Ural'skiy gosudarstvennyy universitet.
(Optics--Laboratory manual)

L 47162-66 EWT(1)/EWT(m)/EWP(t)/ETI LJP(c) M/JG
ACC NR: AR6000451 SOURCE CODE: UR/0137/65/000/009/I039/I039

AUTHOR: Levkov, A. N.

TITLE: Investigation of the magneto-optic Kerr effect in chromium-platinum alloy ⁴⁶ _B

SOURCE: Ref. zh. Metallurgiya, Abs. 91245

REF SOURCE: Sb. Fis. magnitn. yavleniy. Sverdlovsk, 1964, 146-153

TOPIC TAGS: chromium containing alloy, platinum containing alloy, Kerr effect

ABSTRACT: The magneto-optic Kerr effect (MEK) in alloy Pt + 30 at % Cr (Curie point of 344°C) was studied by a photoelectric method. After homogenizing the specimens (15 mm diameter, 2 mm thick) were mechanically polished. Observations revealed the presence of a ferromagnetic condition in the bulk of the specimen. In the surface layers, MEK was absent. This is explained by the destruction of the ordered structure due to mechanical treatment. The surface structure was reestablished by forevacuum annealing at 600°C. After 2 hours annealing MEK appeared and increased with the period of annealing. The absence of the influence of the degree of long-range order η on the shape of dispersion of the magneto-optic rotation was established. The inversion point of the alloy is in the visible region of the spectrum and after 6 hours annealing is displaced from $\lambda_0 = 580 \text{ m}\mu$ to $\lambda_0 = 510 \text{ m}\mu$. The increase in the absolute value of MEK with the length of the annealing period

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UDC: 669.265:231:535

I. 47162-56

ACC NR: AR6000451

is explained by an increase in magnetisation saturation of the optically active surface layer with increase in η (from zero to 50%). I. Dekhtyar [Translation of abstract]

SUB CODE: 11/

Card 2/2 *egh*

LEVKOV, B.

Effect of mass heating on the quality of wall-tile biscuits.
Staklo. p. SPK33.

KEMIJA U INDUSTRIJI. (Društvo kemičara-technologa NHR) Zagreb, Yugoslavia.
Vol. 8, no. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 1,
Jan. 1960.

Uncl.

LEVKOV, D.K.

25(5)

PHASE I BOOK EXPLOITATION

SOV/1314

Moskovskiy dom nauchno-tekhnicheskoy propagandy imeni F.E.
Dzerzhinskogo

Opredeleyeniye proizvodstvennykh moshchnostey v mashinostroyeni
(Determining Productive Capacities in Machinery Manufacturing)
Moscow, Mashgiz, 1957. 185 p., 8,000 copies printed.

Additional Sponsoring Agency: Obshchestvo po rasprostraneniya politicheskikh i nauchnykh znaniy RSFSR.

Ed.: Voskresenskiy, B.V.; Tech. Ed.: Uvarova, A.F.; Managing Ed.
for Literature on the Economics and Organization of Production
(Mashgiz): Saksaganskiy, T.D.

PURPOSE: This collection of articles is for engineering and technical personnel of manufacturing plants and national economic councils.

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Determining Productive Capacities (Cont.)

SOV/1314

COVERAGE: This collection of articles explains the methodology and practice employed in determining the productive capacities of machinery manufacturing establishments and discusses the discovery and utilization of untapped productive capacities. Material included in this collection of articles was presented and discussed at the second scientific and technical conference on exchange of experience in the field of dealing with the methodology and actual determination and utilization of productive capacities in Soviet machinery manufacturing plants, convened in December of 1955 by the Moskovskiy dom nauchno-tekhnicheskoy propagandy imeni F.E. Dzerzhinskogo (Moscow House imeni F.E. Dzerzhinskiy for Dissemination of Scientific and Technical Data). There are no references. No personalities are mentioned.

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AVAILABLE: Library of Congress (HD 9705.R92M64)

JG/atr
3-20-59

Card 4/4

LEVKOV, D.K., inzh.; LOKSHIN, S.V., inzh.

Introducing all-purpose adjusting tools in plants manufacturing
building and road machinery. Stroi. i dor. mashinostr. 5 no.8:31-33
Ag '60. (MIRA 13:8)
(Machinery industry--Equipment and supplies)

LEVKOV, E.A.

Some characteristics of the granulometric composition of
sand sediments in the White Russian S.S.R. Vestsi AN
BSSR. Ser. fiz-tekh. nav. no.4:128-130 '62. (MIRA 18:4)

GORELIK, Zalman Abramovich; MISHAGOVA, Edit Donal'dovich; LEVKOV, Ernst Arkad'yevich; AVKSENT'YEV, A.N., red.; BARABANOVA, Ye., red. izd-va; VOLOKHANOVICH, I., tekhn. red.

[Sands of the White Russian S.S.R. and their industrial utilization]
Peski BSSR i ikh promyshlennoe ispol'zovanie. Minsk, Izd-vo Akad. nauk BSSR, 1961. 170 p. (MIRA 14:11)
(White Russia—Sand)

LEVKOV, Ernst Arkad'yevich; CHERKASOV, A., red.

[Mineral resources of White Russia] V nedrakh zemli
Belorusskoi. Minsk, Izd-vo "Belarus'," 1964. 121 p.
(MIRA 17:6)

LEVKOV, F.

Prefabricated frame-panel buildings. Sel'. stroi. 15 no.11:13-14 N
'60. (MIRA 13:11)

1. Nachal'nik otdela kapital'nogo stroitel'stva Primorskogo krayse-
khozupravleniya.
(Maritime Territory--Farm buildings)

MILOSHEV, G.; LEVKOV, L.; KRASTANOV, L. [Krustanov, L.], Academician

Formation of crystalline embryos with tetragonal lattices on the isomorphic nuclei. Doklady BAN 17 no.8:697-700 '64.

1. Chief Editor, "Doklady Bolgarskoi akademii nauk, Comptes rendus de l'Academie bulgare des Sciences" (for Krustanov).

L 34514-66

ACC NR: AF6024742

SOURCE CODE: BU/0011/65/018/010/0911/0914

AUTHOR: Krastanov, L.; Miloshev, G.; Levkov, L.

ORG: Geophysical Institute, BAN

TITLE: Activity on the equilibrium-shaped faces of ice

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 10, 1965, 911-914

TOPIC TAGS: ice, crystal lattice structure, crystal surface, epitaxial growing, formation heat

ABSTRACT: The equilibrium shape of ice crystals is surrounded by basic (0001), prismatic (010 $\bar{1}$), and pyramidal (1011) faces. The authors investigate theoretically the activity of these faces by comparing the energy of formation of two-dimensional embryos from the gas phase above them. In the crystal models used the positions of the water molecules are assumed identical with the position of the oxygen atoms in the lattice. Calculations took into account the surface structure of the base and the processes of epitaxial deposition. Though the results cover the two-dimensional ice embryo-ice case, they can be applied also to the ice formation from the gas phase on foreign but ice-similar (in structure) bases such as AgI and PbI. In all the cases, in presence of supersaturation the prismatic faces appear to be the most active ones. Orig. art. has: 2 figures and 9 formulas. [Orig. art. in Eng.] [JFRS: 34,964]

SUB CODE: 20 / SUBM DATE: 01Jul65 / ORIG REF: 002 / OTH REF: 002

Card 1/1 *mjs*

0915

2572

ACC NR: AP6027385

SOURCE CODE: HU/0033/65/069/006/0321/0326

AUTHOR: Krystanov, L. (Doctor; President BAN; Director); Miloshev, G.; Levkov, L.

ORG: Instituto for Geophysics, BAN, Sofia

TITLE: Effectiveness of the surfaces of the ice forms in the state of equilibrium
/This paper was presented at the Symposium on Cloud Physics, held in Budapest from 8 to 10 September 1965./

SOURCE: Idojaras, v. 69, no. 6, 1965, 321-326

TOPIC TAGS: ice, crystal growth, cloud physics

ABSTRACT: The formation of two-dimensional nuclei appearing on the surfaces of ice crystals was investigated by studying the equations characterizing the forces involved in the growth. After determining the force needed for the separation of the "half crystal" from the hexagon or prism surfaces, the force required for nucleus formation as a function of supersaturation was calculated. The prism surfaces required less force than the hexagon surfaces. The factors discussed are of importance in cloud physics. /Orig. art. has: 2 figures and 16 formulas. /Based on authors' Eng. abst. / [JPRST 34,270]

SUB CODE: 04, 20 / SUBM DATE: none / SOV REF: 003 / OTH REF: 001

Card 1/1

0911 05121

ACC NR: AP7003865

SOURCE CODE: BU/0011/66/019/012/1139/1142

AUTHOR: Levkov, L.; Genadiev, N.

ORG: Geophysical Institute, Bulgarian Academy of Science

TITLE: Relation between the freezing temperature of supercooled water droplets and the cooling rate

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 19, no. 12, 1966, 1139-1142

TOPIC TAGS: meteorology, cooling rate, supercooled water droplet, freezing, temperature *MEASUREMENT, WATER, SUPERCOOLING*

ABSTRACT: A study was conducted to determine the relationship between the freezing temperature of supercooled water droplets and the cooling rate. Twenty water droplets from various samples of water were frozen a total of 326 times in a 20-cm³ freezing chamber at different cooling rates, and were defrosted. The results obtained showed that the absolute maximum deviation from the mean freezing temperature of each drop varied between 0.2—0.9C, and the mean

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ACC NR: AP7003865

square deviation for the freezing temperature of each drop was between 0.1—
0.5C. The mean deviation for the different cooling rates was found to vary
irregularly between +0.16C and —0.15C. No conclusive results were obtained.
Orig. art. has: 3 figures. [SP]

SUB CODE: 04/SUBM DATE: none/ORIG REF: 002/OTH REF: 004/

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LEVKOV, Liubomir

Clouds and precipitations, and artificial influences on them.
Priroda Bulg 13 no.5:42-46 S-0 '64.

MILOSHEV, G.; LEVKOV, L.

Influence of the adsorption on the formation of embryos with tetragonal lattices on the isomorphic nuclei. Doklady BAN 17 no.8:700-704 '64.

1. Note presentee par L. Krastanov [Krastanov, L.], membre de l'Academie et redacteur responsable, "Doklady Bolgarskoj akademii nauk, Comptes rendus de l'Academie bulgare des Sciences".

MILOSHEV, G.; LEVKOV, L.; KRASTANOV, L. [Krustanov, L.]

Condensation nuclei insofar as embryos are ready for adsorption
of foreign substances. Doklady BAN 17 no.9:813-816 '64.

1. Submitted April 29, 1964.

MAKSIMOV, V.P.; KHOLOSHYNA, G.G.; IVANOV, S.K.; LEVKOV, P.V.

Operation of an automated system of gas gathering points in the
Shebelinka gas field. Neft. i gaz. prom. no.1:53-56 Ja-Mr '64.
(MIRA 18:2)

IVANOV, S.K.; LEVKOV, P.V.

Methods for controlling the hydrate formation in the Shebelinka gas
field. Gaz. prom. 6 no.11:10-13 '61. (MIRA 15:1)
(Shebelinka region--Gas, Natural--Hydrates)

LEVKOV, P.V.; ROSTOTSKIY, L.M.

Automatic control of a group of points in the Rudki gas field.
Gaz. delo no.8:33-35 '64. (MIRA 17:9)

1. Institut avtomatiki AN UkrSSR.

LEVKOV, V.; TIMOFEYEV, V.Ye., dotsent, nauchnyy rukovoditel'

Key to the determination of multicell algae of Kuybyshev
Province. Uch.zap.Kuib.gos.ped.inst. no.37:43-50 '62.
(MIRA 16:1)

(Kuybyshev Province--Algae)

1. LEVKOV, V. P.
2. USSR (600)
4. Horse Racing-- Kamyahlov
7. 25 years activity of the Kamyahlov racr track (Sverdlovsk Province). Konevodstvo
23 no. 1 1953.

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

MEFEDOV, O.M.; LEVKOV, Ya.L.; PETROV, A.D.

Synthesis of aryl halides from aromatic hydroxy compounds.
Dokl.AN SSSR 133 no.4:855-858 Ag '60. (MIRA 13:7)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo
Akademii nauk SSSR. 2. Chlen-korrespondent AN SSSR (for
Petrov).

(Halides)

LEVKOV, Yu.

Work must be simplified. Fin. SSSR 19 no.9:28-30 S 158.
(MIRA 11:10)

1. Nachal'nik finansovogo otdela Komi sovnarkhosa.
(Komi A.S.S.R.--Finance)

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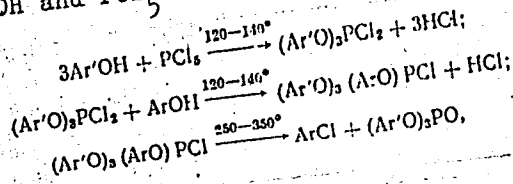
53700

AUTHORS: Nefedov, O. M., Leykov, Ya. L., and Petrov, A. D.,
Corresponding Member of the AS USSR

TITLE: Production of Aryl Halides From Aromatic Hydroxy Compounds

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 4,
pp. 855-858

TEXT: The authors discuss the methods of producing aryl halides (ArX),
and the difficulties arising in this connection. They mention a method
suggested by English chemists (Ref. 4) in 1957, which eliminates these
shortcomings. There, the ArX are produced from the corresponding hydroxy
compounds Ar'OH and PCl₅ according to the following scheme:



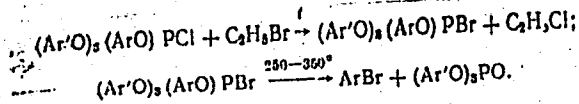
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Production of Aryl Halides From Aromatic
Hydroxy Compounds

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where Ar'OH is an aromatic hydroxy compound with better electron-donor properties than ArOH (phenol, p-cresol, the best one being p-tert.-butyl phenol). To obtain aryl bromides (ArBr) or aryl iodides (ArI), the compound $(Ar'O)_3(ArO)PCl$ is boiled before the pyrolysis with an excess of C_2H_5Br or CH_3I , e.g.:



During the pyrolysis of the reaction products, the undesired halide Ar'X is also formed (up to 70%). The yields of aryl bromides become even smaller. Therefore, the authors developed modified methods of synthesizing individual ArX, in which they proceeded from the corresponding hydroxy compounds and PX_3 . They found that the substitution of the hydroxy group in ArOH by chlorine for the production of ArCl can be performed during one stage. For this purpose, the corresponding aromatic compound is heated

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Hydroxy Compounds

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as of the ArX produced, on the basis of the authors' data and publications.
There are 1 table and 8 references: 1 Soviet, 1 US, 3 German, and 1 Indian.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni
N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: April 25, 1960

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