

SOV/124-58-11-12809

On the Role of Fronts in the Formation of Showery Precipitation

convective activity is determined by the length of time of the effective heating action upon the stratification. A high moisture content and low-level wind-velocity convergence are the fundamental conditions for the formation of intense frontal precipitation. The magnitude of the temperature contrast across the front does not exert a direct influence on the precipitation. Inasmuch as it appears impossible to account for the vertical movements and the turbulent heat and moisture flow occasioned by the microtopography and the properties of the underlying ground surface, the changes in stratification due to these factors are not considered. Therefore, the proposed method of the construction of the stratification prior to the inception of convection cannot serve for the assessment of the probability of showers in areas with sharply pronounced orographic features.

I. M. Sheynis

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AUTHOR: Orlova, Ye. M. SOV/ 50-58-7-1/20

TITLE: Nonperiodic Altitude Fluctuations of the Tropopause in Connection With Synoptic Processes (Neperiodicheskiye kolebaniya vysoty tropopauzy v svyazi s sinopticheskimi protsessami)

PERIODICAL: Meteorologiya i gidrologiya, 1958, Nr 7, pp. 3-10 (USSR)

ABSTRACT: The author shows in the present paper to which extent the altitude fluctuations of the tropopause depend on the processes in the lower troposphere and when it is possible to draw conclusions concerning the signs and the amount of the changes of height of the tropopause on the strength of these processes. 100 cases of changes of the stratification of temperature and the distribution of moisture in the troposphere and lower stratosphere analyzed by the author showed that smaller altitude fluctuations of the tropopause (0,0 - 0,5 km) are usually observed under maintenance of the character of development of the synoptic processes in the lower troposphere. Greater altitude fluctuations of the tropopause (1 - 5 km in the course of 12 hours) took place in the case of the change of the synoptic processes or in

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Nonperiodic Altitude Fluctuations of the Tropopause in Connection With
Synoptic Processes

the case of the change of their development intensity. In most cases the local reductions of the altitude of the tropopause were found to occur on principle in the case of a temperature reduction in the troposphere. In the case of a temperature rise, the replacement of the reverse side of the cyclones by the center or the eastern part of the anti-cyclones as well as in the case of the filling up of cyclones, an increase of the altitude of the tropopause took place. However, in individual cases contrary phenomena were observed. Though these cases are rare they are very important for the weather conditions in the upper layers (Ref 2). From table 1 follows that the local reduction of the altitude of the tropopause takes place in the case of three types of distribution with respect to the amount of the local changes of temperature. In the case of all three types of reduction of altitude of the tropopause the same course of temperature change is observed: a cooling down in the upper troposphere and a warming (also a relative one) in the lower stratosphere. In the case of a local increase of the altitude of the tropopause also three types of the distribution of the local change of

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Nonperiodic Altitude Fluctuations of the Tropopause in Connection With
Synoptic Processes

temperature according to height are observed (Table 1). The analysis of the data given in table 1 shows that the changes of temperature in the lower troposphere do not influence at all the altitude fluctuations of the tropopause. It was shown already earlier (Ref 1) that the local changes of altitude of the tropopause are proportional to the greatest difference of the changes of temperature in the upper troposphere and lower stratosphere. They can be calculated according to the following formula:

$$\Delta h \approx - \frac{1}{\gamma} \left[\left(\frac{\partial T}{\partial t} \right)_k - \left(\frac{\partial T}{\partial t} \right)_n \right]$$

Data on the local changes of the altitude of the tropopause, on the changes of the near-the-ground pressure and the absolute geopotential, on the vertical velocities and the changes of temperature dependent on various factors are given (Table 2). There are 2 tables and 2 Soviet references.

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Nonperiodic Altitude Fluctuations of the Tropopause in Connection With
Synoptic Processes

1. Meteorology--USSR 2. Atmosphere--Analysis 3. Atmosphere--Temperature
factors 4. Mathematics

Card 4/4

ORLOVA, Ye.M.

Analysis of the wind field and the geopotential of 850 and 700
mb surfaces and local wind forecasting. Meteor. i gidrol. no.9:
13-18 S '62. (MIRA 15:8)

1. Tsentral'nyy institut prognozov.
(Winds)

ORLOVA, Ye.M.

Accuracy of calculating the effect of distant zones on the
height of the quasigeoid by expanding the K and Q coefficients.
Trudy TSNIIGAIK no.145:61-70 '62. (MIRA 15:11)
(Earth—Figure)

L 3794-66 EWT(1) GN

ACCESSION NR: AT5023301

UR/2547/65/000/157/0101/0108
528.241.061.4(083.5)

52
46
B+1

AUTHOR: Orlova, Ye. M.
44,55

TITLE: Tables describing the nonlinearity of the effects of topographic mass altitudes on plumb line deflections

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, aeros'yemki i kartografi. Trudy, no. 157, 1962. Issledovaniya po geodezicheskoy gravimetrii (Research on geodetic gravimetry), 101-108

TOPIC TAGS: gravitation effect, topography, geodesy

ABSTRACT: M. I. Yurkina proposed earlier (Trudy TsNIGAIK, 103, M., Geodezizdat, 1964) that the influence of the topographic mass be excluded in calculating the gravitational field, and that this influence be then applied directly to the deflection of the plumb line. This approach reduces errors during the interpolation of the gravitational anomaly in free air. L. P. Pellinen (Trudy TsNIGAIK, 131, M., Geodezizdat, 1960) transformed the expression for the influence on the plumb line of topographic masses by excluding the quantity containing 2ω IDH. In the resulting expression

12,44,65

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 ACCESSION NR: AT5023301

3

$$\begin{aligned} \delta \xi = & -\frac{fD}{\gamma} \int_0^{2\pi} \int_0^L \frac{h \cos \alpha \, d\alpha \, dr}{(r^2 + h^2)^{3/2}} = -\frac{fD}{\gamma} \int_0^{2\pi} \int_0^L \left[\frac{h}{(r^2 + h^2)^{3/2}} + \right. \\ & \left. + \frac{h}{r} - \frac{h}{r} \right] \cos \alpha \, d\alpha \, dr = -\frac{fD}{\gamma} \int_0^{2\pi} \int_0^L \frac{H \cos \alpha \, d\alpha \, dr}{r} + \\ & + \frac{fD}{\gamma} \int_0^{2\pi} \int_0^L h \left[\frac{1}{r} - \frac{1}{(r^2 + h^2)^{3/2}} \right] \cos \alpha \, d\alpha \, dr. \end{aligned}$$

(L is the radius of the circumference of the topographic mass, $h = H - H_0$). The first term coincides with the Venning-Meines formula. The second term is difficult to evaluate, and the present author utilized the numerical integration formula by Gauss. Results accounting for the nonlinearity of the influence of topographic mass altitudes on plumb line deflections are presented in the form of tables; they were verified on models and by differently performed computations. "The study was proposed and supervised by M. I. Yurkina." Orig. art. has: 13 formulas, 1 figure, and 5 tables.

44 55

Card 2/3

3

L 3794-66
ACCESSION NR: AT5023301

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut geodesii, aerofotografii i kartografi, Moscow (Central Scientific-Research Institute of Geodesy, Aerial Photographic Survey, and Cartography) 44.55

SUBMITTED: 00 ENCL: 00 SUB CODE: ES
NO REF SOV: 004 OTHER: 000

PC
Card 3/3

VOSKRESENSKIY, V.A.; FRIDLAND, S.V.; ORLOVA, Ye.M.; BYI YEV, V.A.

Some means of increasing the stability of automaticization systems.
Izv.vys.ucheb.zav.; khim. i khim. tekhn. no. 1:132-136 1964.
(MIRA 17:5)

1. Kazanskiy inzhenerno-stroitel'nyy institut, kafedra khimii.

CHISTYAKOV, A.D.; BURKOVA, M.V.; ORLOVA, Ye.M.; GLAZOVA, O.P.;
PED', D.A.; BERLYAND, M.Ye.; ABRAMOVICH, K.G.; POPOVA,
T.P.; MATVEYEV, L.T.; BACHURINA, A.A.; LEBEDEVA, N.V.;
PESKOV, B.Ye.; ROMANOV, N.N.; VOLEVAKHA, N.M.; PHELKO,
I.G.; PETRENKO, N.V.; KOSHELENKO, I.V.; PINUS, N.Z.;
SHMETER, S.M.; BAKAYEVA, T.F.; MININA, L.S.; BEL'SKAYA,
N.N., nauchn. red.; ZVEREVA, N.I., nauchn. red.;
KURGANSKAYA, V.M., nauchn. red.; MERTSALOVA, A.N., nauchn.
red.; TOMASHEVICH, L.V., nauchn. red.; SAGATOVSKIY, N.V.,
otv. red.; KLIKOVSKAYA, A.B., red.

[Manual of short-range weather forecasting] Rukovodstvo
po kratkoprochnym prognozam pogody. Leningrad, Gidro-
meteoizdat. Pt.2. Izd.2. 1965. 480 p.

(MIRA 18:8)

1. Moscow. Tsentral'nyy institut prognozov.

BACHURINA, A.A.; OILOVA, Ye.M.

Studies of the diurnal variation of temperature and humidity.
Trudy TSIP no.144:53-61 '65. (MIRA 18:11)

ORIOVA, Ye.M.

Tables for use in allowing for the nonlinearity of the effect of altitudes of a topographic massif on plumb line deflections. Trudy TSNIGAIK no.157:101-108 '65. (MIRA 18:10)

L 10863-66 ENP(e)/EWT(a)/T/ENP(j)/ENP(b)/ETC(m) WW/RM/WH

ACC NR: AP5028733

SOURCE CODE: UR/0363/65/001/011/2009/2013

AUTHOR: Bogdanova, G. S.; Orlova, Ye. N.; Zevin, L. S.

36
B

ORG: State Scientific Research Institute of Glass (Gosudarstvenny nauchno-issledovatel'skiy institut stekla)

TITLE: Phase composition of pyroceramics in the system $SiO_2-Al_2O_3-BaO-TiO_2$

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 11, 1965, 2009-2013

TOPIC TAGS: titanium dioxide, catalyzed crystallization, glass

ABSTRACT: The phase composition of celsian base pyroceramics was studied at various stages of the crystallization process. Titanium dioxide was used as the crystallization catalyst. X-ray diffraction patterns were obtained with a URS-50I diffractometer. In these glasses whose main composition was in the celsian range in the phase diagram of the $SiO_2-Al_2O_3-BaO$ system the main end product of crystallization was β -celsian, independent of the initial stage of crystallization. At this stage either the α or the β modification of celsian separated out. After β -celsian has crystallized out completely above 1050°C, the composition of the residual glass phase is in the

UDC: 546.284+546.623+546.431+546.824

Card 1/2

L 10863-66

ACC NR: AP5028733

aluminum Al TiO range. The presence of aluminum titanate in the composition is indicated by a marked increase in the dielectric constant and by x-ray phase analysis. Orig. art. has: 2 figures, 1 table.

SUB CODE: 07, //

SUBM DATE: 02Jun65/

ORIG REF: 006/

OTH REF: 003

HW
Part 2/2

BOGDANOVA, G.S.; ORLOVA, Ye.M.; ZEVIN, L.S.

Phase composition of pyrocerams in the system $\text{SiO}_2 - \text{Al}_2\text{O}_3 -$
 $\text{BaO} - \text{TiO}_2$. Izv. AN SSSR. Neorg. mat. 1 no.11:2004-213
N 165. (MIRA 1965)

i. Gosudarstvennyy nauchno-issledovatel'skiy institut stekla.
Submitted June 2, 1965.

i. 22283-66 EWT(m)/EWP(e) WH/WW

ACC NR: AP6007262

(A)

UR/0363/66/002/002/0380/0383

AUTHOR: Bogdanova, G.S.; Orlova, Ye.M.; Zevin, L.S.

38

B

ORG: State Glass Institute (Gosudarstvennyy institut stekla)

TITLE: Amount of the crystalline phase as a function of heat treatment conditions in microcrystalline glasses (Pyrocerams) of the SiO₂-Al₂O₃-BaO-TiO₂ system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v.2, no.2, 1966, 380-383

TOPIC TAGS: glass property, ~~phase composition~~ glass, crystal growth, x ray analysis

ABSTRACT: The article reports a study of the dependence on heat treatment conditions of the amount of the crystalline phase in microcrystalline glasses of several different compositions, in which the product of crystallization is only beta celsian, and the properties of these microcrystalline glasses. The composition of the glasses corresponded to 65-85 weight % celsian. The aim of the work was investigation of the possibility of controlling the properties of microcrystalline glasses in a given system. The content of beta celsian in the microcrystalline glasses was determined by quantitative x-ray analysis. A figure shows the dependence of the amount of beta celsian on the heat treatment temperature.

Card - - -1/2

UDC: 661.1:542.65

L 22283-66

ACC NR: AP6007262

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For all compositions, the amount of beta celsian at first increases slowly, then rapidly and, finally, attains a constant value. At a temperature of 950-1000°C, the amount of the crystalline phase and the values of the properties reach practically constant values. Further increase in temperature leads to a growth in the size of the crystals formed from about 0.2 to about 0.5 microns, but does not exert any significant effect on the properties. Orig. art. has: 3 figures.

SUB CODE: 11, 20/ SUBM DATE: 25Jul65/ ORIG REF: 002/ OTH REF: 001

Card

2/2 ast

YEGOROV, V.V.; ZIMOVETS, B.A.; BONDAREV, A.G.; SLAVNYI, Yu. A , ORLOVA,
Ye.M.; KAURICHEVA, Z.N.

Effect of the complex of soil cover on the effectiveness of
saturation irrigation on large checks. Pochvovedenie no.10:
6-15 0 '65. (MIRA 18:11)

1. Pochvennyy institut imeni Dokuchayeva.

ORLOVA, Ye.N.

~~ORLOVA, Yelena Nikolayevna;~~ SOKOLOV, A.K., redaktor; MAZUROVA, A.F.,
tekhnicheskiy redaktor.

[Where the Ob flows; geographical outline for the general reader] Tan,
gde protekaet Ob'; popularnyi geograficheskiy ocherk. Izd. 2-e, ispr.
i dop. [Novosibirsk] Novosibirskoe knizhnoe izd-vo, 1954. 294 p.
(Ob'Valley—Description and travel) (MIRA 8:4)

ORLOVA, Ye.P.

School evening meeting devoted to the topic "I.P.Pavlov and his doctrine." *Est. v shkole* no.6:78-79 N-D '54. (MLRA 7:12)

1. Uchitel'nitsa shkoly No. 32 g. Orla.
(Pavlov, Ivan Petrovich, 1849-1936) (Physiology--Study and teaching)

ORLOVA Ye.P.
ORLOVA, Ye.P.

Sketches of the Chukchi Peninsula by Iakov Lindenau and Timofei
Perevalov. Vop.geog.Dal'.Vost.no.3:120-129 '57. (MIRA 10:12)
(Chukchi Peninsula--Discovery and exploration)
(Lindenau, Iakov, fl. 18th cent.)
(Perevalov, Timofei, fl. 18th cent.)

KHARCHENKO, A.K., doktor tekhn. nauk, otv. red.; ZYAGIN, P.Z., prof., doktor tekhn. nauk, otv. red.

[New developments in the economics of coal and ore deposit mining] Novoe v ekonomike razrabotki ugol'nykh i rudnykh mestorozhdenii. Moskva, Nedra, 1965. 294 p.

1. Moscow. Institut gornogo dela imeni A.A.Skochinskogo.

NAVYAZHSKAYA, E.A.; ORLOVA, Ye.S.

Determination of cobalt and iron in cobalt naphthenate solutions
in styrene and polyester lacquers. Lakokras.mat. i kh.prim.
no.2:48-49 '60. (MIRA 14:4)
(Cobalt--Analysis) (Iron--Analysis) (Paint materials)

ORLOVA, Ye.V.

Some characteristics in the distribution and the types of boron
deposits in the Alpine fold area of Western Asia. Min.syr'e no.8:
23-33 '63. (MIRA 17:9)

KOROBOV, S.S.; ORLOVA, Ye.V.

Evolution of borates in sedimentary formations. Min.syr'ie no.8:
45-47 '63. (MIRA 1719)

ORLOVA, Ye. V.

Phosphorite-yielding basins of foreign countries Moskva, Gos. izd-vo geol. lit-ry,
1951. 182 p. maps. (Mineral'nye resursy za-rubezhnykh stran, vyp. 19) (54-22450)

TN7.M53 vyp.19

ROZIN, M.S.; ~~ORLOVA, Ye. V.~~; PERVUSHNIN, S.A.; SYROVA, Ye. I.;
BORISEVICH, E.V., redaktor; VASYUTIN, V.F., redaktor; SMIRNOVA,
V.I., redaktor; SEMENOVA, M.V., redaktor; BORISOV, A.S.,
tekhnicheskikh redaktor.

[Mineral resources of the United States] Mineral'nye resursy
Soedinennykh Shtatov Ameriki. Moskva, Gos. izd-vo geol. lit-ry,
1952. 407 p. (Mineral'nye resursy zarubeshnykh stran, no. 20).
(MLRA 9:5)

(United States--Mines and mineral resources)

ORLOVA, Yelena Vladimirovna; BOZIN, Mark Solomonovich; POPOV, K. M.,
redaktor; LAVRENT'YEVA, Ye.V., redaktor; KUSHEL'VA, S.M.,
tekhnicheskii redaktor

[India's mineral resources] Bogatstva nedr Indii. Moskva, Gos.
Izd-vo geogr. lit-ry, 1955. 114 p. (MLRA 8:10)
(India--Mines and mineral resources)

MARKOVA, Ye.I.; ~~ORLOVA, Ye.V.~~; ASSOVSKIY, A.N., redaktor; NEMANOVA, G.F.,
redaktor izdatel'stva; AVERKIYEVA, T.A., tekhnicheskiy redaktor

[Mineral resources of Indonesia, Malaya, and Thailand] Mineral'nye
resursy Indonezii, Malaii i Tailanda. Moskva, Gos. nauchno-tekhn.
izd-vo lit-ry po geol. i okhrane neдр, 1956. 105 p. (MIRA 9:12)
(Asia, Southeastern--Mines and mineral resources)

ORLOVA, Yelena Vladimirovna; MARKOVA, Yekaterina Ivanovna; KOTLYAR, V.N.,
redaktor; PORAROV, V.S., redaktor izdatel'stva; GYROVA, O.A., tekhnicheskiy redaktor.

[Copper, lead and zinc resources of capitalist countries] Resursy
medi, svintsa i tsinka v kapitalisticheskikh stranakh. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po geol. i okhrane neдр. 1957. 227 p.
(MLSA 10:6)

(Copper) (Lead) (Zinc)

KURMAN, I.M.; MEL'NITSKIY, V.V.; ZAYTSEV, L.S.; MEL'NITSKAYA, Ye.F.; ORLOVA, Ye.Y.; Prinimali uchastiye; OKNINA, V.A.; KORYAKOV, G.Ya.; DARAGAN, V.Kh., red.; SHUGIN, A.A., red.; AFANAS'YEVA, Yu.N., red. izd-va; IYERUSALIMSKAYA, Ye.S., tekhn. red.

[Prospecting for boron] Poiski i rasvedka bornogo syr'ia. Pod obshehei red. V.Kh.Daragana, I.M.Kurmana i A.A.Shugina. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane neдр, 1960. 102 p. (MIRA 14:7).

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya. 2. Gosudarstvennyy nauchno-issledovatel'skiy institut gornokhicheskogo syr'ya Gosudarstvennogo komiteta Soveta Ministrov SSSR (for Mel'nitskaya, Okina, Koryakov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya Ministerstva geologii i okhrany neдр (for Orlova). (Boron)

ORLOVA, Ye.V.; YEZDROVA, V.I., nauchnyy red.

[Geological conditions in areas of volcanic sedimentary deposits of boron as revealed by the studies of boron-bearing regions in North and South America]. Osobennosti geologicheskoy obstanovki vulkanogenno-osadochnykh mestorozhdenii bora na primere boronosnykh provintsiy Severnoi i Iuzhnoi Ameriki. Moskva, 1961. 29 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut mineral'nogo syr'ia. Otdel nauchno-tehnicheskoi informatsii. Seriya geologicheskaya, no.13). (MIRA 16:4)

(America--Boron)

GALKIN, B.I.; BIRYUKOV, V.I.; KREYTER, V.M.; KULICHIKHIN, S.N.;
ORLOVA, Ye.V.; POMERANTSEV, V.V.; RUSSETSKAYA, G.G.;
YARMOLOVICH, N.V.; MAKEYEV, V.I., red. izd-va; BYKOVA,
V.V., tekhn. red.

[Prospecting for stockwork deposits of nonferrous and rare
metal ores] Razvedka shtokverkovykh mestorozhdenii tsvalnykh i
redkikh metallov. [By] B.I.Galkin i dr. Moskva, Gosgeoltekh-
izdat, 1962. 233 p. (MIRA 16:6)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mine-
ral'nogo syr'ya. (Prospecting)

ORLOVA, Ye.V.

Geological prerequisites for prospecting for borates of volcanic
sedimentary origin. Izv.vys.ucheb.zav.; geol. i razv. 5 no.5:3-20
My '62. (MIRA 15:6)

1. Vsesoyuznyy institut mineral'nogo syr'ya.
(Borates)

ORLOVA, Ye.Ye.

Improve the work in managing drug distribution centers. Apt. delo
10 no.3:63-65 My-Je '61. (MIRA 14:7)

1. Aptechnoye upravleniye Tyumenskoy oblasti.
(TYUMEN' PROVINCE--DRUGSTORES)

ORLOVA, Ye.Yu.; ROMANOVA, S.S.

Investigation of a by-product of toluene nitration. Zhur. prikl. khim.
31 no.10:1541-1547 O '58. (MIRA 12:1)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.
Mendeleeva.
(Toluene) (Nitrosylsulfuric acid) (Nitration)

PHASE I BOOK EXPLOITATION

SOV/4722

Orlova, Yevgeniya Yulianovna, Doctor of Technical Sciences, Professor

Khimiya i tekhnologiya brizantnykh vzryvchatykh veshchestv (Chemistry and Technology of High Explosives) Moscow, Oborongiz, 1960. 392 p. Errata slip inserted. 3,060 copies printed

Reviewers: I. Ye. Moysak, Professor, and S.L. Simonenko, Candidate of Technical Sciences; Eds.: G.A. Avakyan, Candidate of Technical Sciences, Docent, and T.M. Kunyavskaya; Managing Ed.: A.S. Zaymovskaya, Engineer; Tech. Ed.: V.P. Rozhin.

PURPOSE: This book is intended as a text for students of schools of chemical technology in the system of higher education. It may also be used as a handbook for technical and scientific personnel.

COVERAGE: The book presents systematized material on the properties and production of high explosives. The theoretical principles of the industrial processes are examined and the state of high explosive production outside the Soviet Union is reviewed. The book is divided into three parts dealing with nitrocompounds, nitroamines, and nitric acid esters. The kinetics of the nitration process under

Card ~~1/9~~

SHUTOV, G.M.; ZBARSKIY, V.L.; ZHILIN, V.F.; ORLOVA, Ye.Yu.

Nucleophilic substitution of halogen for a nitro group in aromatic nitro compounds. Part 1: Interaction of tetranitro derivatives of benzene with halogen acids and phosphoryl chloride. Zhur.ob.khim. 33 no.10:3210-3211 0 '63.

(MIRA 16:11)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I. Mendeleeva.

L 43892-65 EPF(c)/ENP(j)/EWA(c)/EPI(m) Pc-4/Pr-4 REL RM/JW
ACCESSION NR: AP5010854 UR/0286/65/000/007/0020/0020

AUTHORS: Shutoy, G. M.; Zhilin, V. F.; Zbarskiy, V. L.; Orlova, Ye. Yu. 27
B

TITLE: A method for obtaining 2, 4, 6 trinitro-m-phenylenediamine. Class 12,
No. 169504

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 20

TOPIC TAGS: organic material, chemical reaction, styphnic acid, chlorination,
pyridine, phosphorus compound

ABSTRACT: This Author Certificate presents a method for obtaining 2, 4, 6-
trinitro-m-phenylenediamine by chlorinating styphnic acid in the presence of
pyridine, and then by aminating the obtained 2, 4, 6-trinitro-m-dichlorbenzine
in the boiling methanol. To increase the yield of the product and to shorten
the time of the process, phosphorus chloroxide is used as the chlorinating agent,

and the reaction is conducted at about 100C.

ASSOCIATION: none

SUBMITTED: 12Sep62

EXCL: 00

SUB CODE: 00

Card 1/2

L 43892-65

ACCESSION NR: AP5010854

0

NO REF SOV: 000

OTHER: 000

Card 2/2 CC

I. 53737-65 EFP(c)/EWP(j)/EWT(m)/EWI(a) Pp-4/Pr-4 RPL JW/RM
ACCESSION NR: AP5015561 UR/0286/65/000/008/0116/0116
662.22 31
B

AUTHOR: Shutov, G. M.; Maksimov, Yu. Ya.; Zbarskiy, V. L.; Zhilin, V. F.; Orlova, Ye. Yu.

TITLE: Preparative method for octogen.¹ Class 78, No. 170360¹⁵

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 116

TOPIC TAGS: octogen, preparation, explosive

ABSTRACT: An Author Certificate has been issued for a preparative method for octogen involving the treatment of crystalline hexamethylenetetramine with concentrated nitric acid, with subsequent recrystallization of the reaction product from the solvent. To increase the thermal stability of the end product, the solvent used is dimethylformamide. [SM]

ASSOCIATION: none

SUBMITTED: 14Apr64
NO REF SOV: 000

ENCL: 00
OTHER: 000

SUB CODE: WA, 00
ATD PRESS: 4019

Card 171

ZBARSKIY, V.L.; SHUTOV, G.M.; ZHILIN, V.F.; ORLOVA, Ye.Yu.

Some particular features of nitration in the diphenylamine series. Zhur. org. khim. 1 no.7:1237-1239 J1 '65.

(MIRA 18.11)

1. Moskovskiy khimiko-tekhnologicheskij institut imeni D.I. Mandeleeva.

1 29294 66 EWP(1)/EWI(m)/I RM/WM/JM/JND SOURCE CODE: UR/0079/65/035/008/1358/1361

ACC NR: AP6019318

AUTHOR: Shartov, G. M.; Zbarskiy, V. L.; Zhilin, V. F.; Orlova, Ye. Yu.

47
46
B

ORG: Moscow Chemotechnological Institute in. D. I. Mendeleev (Moskovskiy khimiko-
tehnologicheskiy institut)

TITLE: Nucleophilic substitution of halogen in aromatic nitro compounds. II. Catalytic action of pyridine in reactions of polynitro derivatives of benzene and phenol with phosphorus oxychloride

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1358-1361

TOPIC TAGS: aromatic nitro compound, catalysis, pyridine, chemical reaction

ABSTRACT: The substitution of NO₂ groups with Cl in 1,2,4,6-tetranitrobenzene, 2,3,4,6-tetranitroaniline, 2,3,4,6-tetranitrophenol, 1,2,4-trinitrobenzene, 3,4,5-trinitrotoluene, 3,4,5-trinitrochlorobenzene, 3,4-dinitrochlorobenzene, o-dinitrobenzene, and p-dinitrobenzene was studied. The dinitro derivatives of benzene did not react either with concentrated HCl or with POCl₃ in the presence of pyridine. The trinitro derivatives reacted with POCl₃ under substitution of the activated NO₂ group, but only in the presence of pyridine. Tetranitrobenzene and tetranitroaniline

Card 1/2

UDC: 547.546:+547.564.3

I 29294-66

ACC NR: AF6019318

did not react with POCl_3 in the absence of pyridine, but reacted with it when pyridine had been added, yielding chloro derivatives (2,4,6-trinitro-3-chloroaniline in the case of tetranitroaniline). Tetranitrophenol reacted with POCl_3 in the absence of pyridine, yielding 2,4,6-trinitro-3-chlorophenol, but the reaction took place only when the mixture was diluted with water. Apparently, tetranitrophenol reacted with HCl formed by hydrolysis of POCl_3 . Addition of pyridine to tetranitro derivatives required caution, because pyridine was ignited by them. The reaction of styphnic acid (1,3-dihydroxy-2,4,6-benzene) with POCl_3 in the presence of pyridine hydrochloride resulted in the formation of 2,4,6-trinitro-3-chlorophenol. This indicated that electrophilic substitution must be the initial stage of the reaction of nitrophenols with POCl_3 (apparently substitution of H in 3-OH with a POCl_2 group took place.) A reaction of monopyridine styphnate with POCl_3 in the presence of water did not take place, while in the absence of water 1,3-dichloro-2,4,6-trinitrobenzene formed. Addition of pyridine to a suspension of styphnic acid in POCl_3 resulted in ignition of the mixture; for this reason monopyridine styphnate was prepared initially and the salt brought into reaction with POCl_3 .

Orig. art. has: 2 figures and 2 formulas. [JPRS]

SUB CODE: 07 / SUBM DATE: 04Jul64 / ORIG REF: 003 / OTH REF: 002

Cord 2/2 CC

L 30402-66 EWP(j)/EWI(m)/ETC() RM/DS/WW/JW/JWD/WE

ACC NR: AP6008099

SOURCE CODE: UR/0076/66/040/002/0504/0506

69
68.
E

AUTHOR: Zhilin, V.F.; Zbarskiy, V.L.; Shutov, G.M.; Orlova, Ye. Yu.

ORG: Moscow Chemical Engineering Institute im. D.I. Mendeleev (Moskovskiy khimiko-tekhnologicheskii institut)

TITLE: Methods of studying the kinetics of fast exothermic reactions

SOURCE: Zhurnal fizicheskii khimii, v. 40, no. 2, 1966, 504-506

TOPIC TAGS: chemical reaction kinetics, heat of reaction, exothermic reaction, tertiary amine, nitric acid

ABSTRACT: An attempt was made to work out a technique which would make it possible to minimize the error introduced by the period of mixing of the reagents in exothermic reactions. To this end, use was made of the reaction of hexamethylenetetramine or its dinitrate with anhydrous nitric acid (which yields cyclotrimethylenetrinitroamine). The heat of reaction is 88.0 kcal/mole when hexamethylenetetramine is used, and 41.7 kcal/mole when its dinitrate is employed; to eliminate the overheating (which would raise the reaction temperature to 160C for hexamethylenetetramine), the reagents were first cooled. A method is given for calculating the "equivalent time of mixing" eq, i. e., the reaction time at a constant temperature T_1 required for the desired concentration of the product c_1

UDC: 541/.54

Card 1/2

L 30402-66

ACC NR: AP6008099

to be formed, and it is shown that this method can indeed be used for reducing the errors introduced by the period of mixing of the components in studies of the kinetics of fast exothermic reactions. Orig. art. has: 5 figures and 4 formulas.

||
SUB CODE: 07 / SUBM DATE: 01Nov64 / OTH REF: 004

Card 2/2 CC

ORLOVA, YU. D.

Fishery Products - Preservation

Packing pickled fish products in dry barrels with polyvinyl chloride inner wrapping. *nyb.*
khoz. 28 no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 195~~8~~⁶, Uncl.
2

1. ORLOVA, YU.D.
2. USSR (600)
4. Coopers and Cooperage
7. Progressive work methods in barrel factories of the Azov-Black Sea basin, Ityb. khoz. 29 no. 3, 1953.

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

5 (2)

AUTHORS:

Novoselova, A. V., Corresponding Member SOV/20-126-1-25/62
AS USSR, Orlova, Yu. V., Simanov, Yu. P.,
Kovba, L. M.

TITLE:

A New Series of Polymorphous Transformations of Na_2BeF_4
(O novom ryade polimorfnykh prevrashcheniy Na_2BeF_4)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 93 - 96
(USSR)

ABSTRACT:

After a survey of publications (Refs 1-8) concerning sodium-fluoro-beryllate the authors found that the needlelike Na_2BeF_4 crystals obtained from an aqueous solution represent an independent modification of this compound. They call the latter $\delta\text{-Na}_2\text{BeF}_4$. The authors drew this conclusion on the strength of a thermographic and X-ray investigation. Figure 1 shows the radiogram at 20, 360, 410, 470 and 510°, figure 2 the heating-thermogram and figure 3 the thermogram of the mentioned modification. The diffraction class of the crystals could not be determined since the latter is not complete. The comparison of all "cold"

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A New Series of Polymorphous Transformations of
 Na_2BeF_4

SOV/20-126-1-25/62

and "hot" radiograms confirms the phase transformations shown in figure 2, furthermore their irreversibility. The δ -phase can be considered as an initial phase of a series of polymorphous varieties formed by it. These latter do not agree with those of the series γ - Na_2BeF_4 (Table 1). The transformation series described here is not similar at all to the transformations of Ca_2SiO_4 . There are 3 figures, 1 table, and 12 references, 3 of which are Soviet.

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

SUBMITTED: January 21, 1959

Card 2/2

GRIGOR'YEV, A.I.; ORLOVA, Yu.V.; SIPACHEV, V.A.; NOVOSELOVA, A.V.

Vibration spectra of alkali metal fluoberyllates of the type
 M_2BeF_4 . Dokl. AN SSSR 152 no.1:134-136 S '63. (MIRA 16:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
2. Chlen-korrespondent AN SSSR (for Novoselova).
(Fluoberyllates—Spectra)

NOVOSELOVA, A.V.; OILOVA, A.V.; DABELEVA, P.I.; SIKIN, I.I.

Members of Party. (B. O. O.) Secretar. Pol. AN
SSSR 199 no. 6: 133-134. 1964

1. Moskva by USSR (P. I. M. S. S. S. R.).
AN SSSR (P. I. M. S. S. S. R.).

15

ORLOVA, Yu Ya.

1958 Photocolorimetric Determination of Silicon in Iron and Steel. Yu. I. Usatenko and Yu. Ya. Orlova. Henry Brucher, Translation No. 2485, 6 pages. From *Zavodskaya Laboratoriya* (Factory Laboratory), v. 15, Nov. 1949, p. 1368. 1368.
Previously abstracted from original.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF MINES
METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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VORONTSEV, ~~Y.~~; ORLOVA, Yu.Ya.; TVOROGOVA, M.M.; KHOKHLOVA, N.A.

Changes in the ornithofauna of the forest section of the Pustyn'
Biological Station of Gor'kii University. Ornitologia no.4:117-121
'62. (MIRA 16:4)

(Chernukha District—Birds)

ORLOVA, Z.A., assistant

Treatment of eczema and neurodermatitis with electric sleep.
Vest.derm. i ven. 33 no.3:19-22 My-Je '59. (MIRA 12:9)

1. Iz kliniki kozhnykh i venericheskikh bolezney (zav.kafedroy -
prof.M.M.Zheltakov) II Moskovskogo meditsinskogo instituta (dir.
M.G.Sirotkina) i iz kliniki kozhnykh i venericheskikh bolezney
(zav.kafedroy prof.D.L.Voronov) Ryazanskogo meditsinskogo instituta
imeni I.P.Pavlova (dir. - prof.L.S.Sutulov).

(ECZEMA, ther.

electric sleep (Rus))

(NEURODERMATITIS, ther.

same)

(ELECTRONARCOSIS

electric sleep in eczema & neurodermatitis (Rus))

~~ORLOVA, Z.I.~~

Blood changes in eczema and neurodermatitis patients under sleep
therapy. Sbor.nauch.rab.Bel.nauch.-issl.kozhno-ven.inst. 4:20-22
'54 (MIRA 11:7)

(SLEEP--THERAPEUTIC USE)
(BLOOD--ANALYSIS AND CHEMISTRY)

PROKOPCHUK, A.Ya., prof., ORLOVA, Z.I., FEDOROVA, L.G.

"Viral" etiology of psoriasis. Sbor.nauch.rab.Bel.nauch.-issl.
koshno-ven.inst. 4:47-49 '54 (MIRA 11:7)
(PSORIASIS)

GORBULVE, S.S., SHIMANOVICH, A.N., FEDOROVA, L.G., ORLOVA, Z.I.

Prognostic significance of eosinophilia in the specific treatment
of syphilis. Sbor.nauch.rab.Bel.nauch.-issl.koshno-ven.inst.
4:247-250 '54 (MIRA 11:7)

(SYPHILIS)
(EOSINOPHILES)

DYLO, P.V.. ~~ORIG. BY~~ ~~DATE~~

Improving the diagnosis of proutatitis. Sbor.nauch.rab.Bel.nauch.
-issl.kozhno-ven.inst. 4:261-266 '54 (MIRA 11:7)
(PROSTATE GLAND--DISEASES)

ORLOVA, Z.I.

Influence of cortisone on the course of experimental Candida infection.
Sbor.nauch.rab.Bel.nauch.-issl.kozhno-ven.inst. 6:145-149 '59.

(MIRA 13:11)

(CORTISONE)
(MONILIASIS)

SOSNOVSKIY, A.T.; ORLOVA, Z.I.

Study of the copper trace element content in X-ray dermatitis.
Zdrav.Bel. 8 no.12:45-47 D '62. (MIRA 16:1)

1. Iz laboratorii biokhimii (zav. - kand.med.nauk M.A.
Kuntsevich [deceased]) Belorusskogo nauchno-issledovatel'skogo
kozhno-venerologicheskogo instituta (dir. - akademik AN BSSR
A.Ya. Prokopchuk).

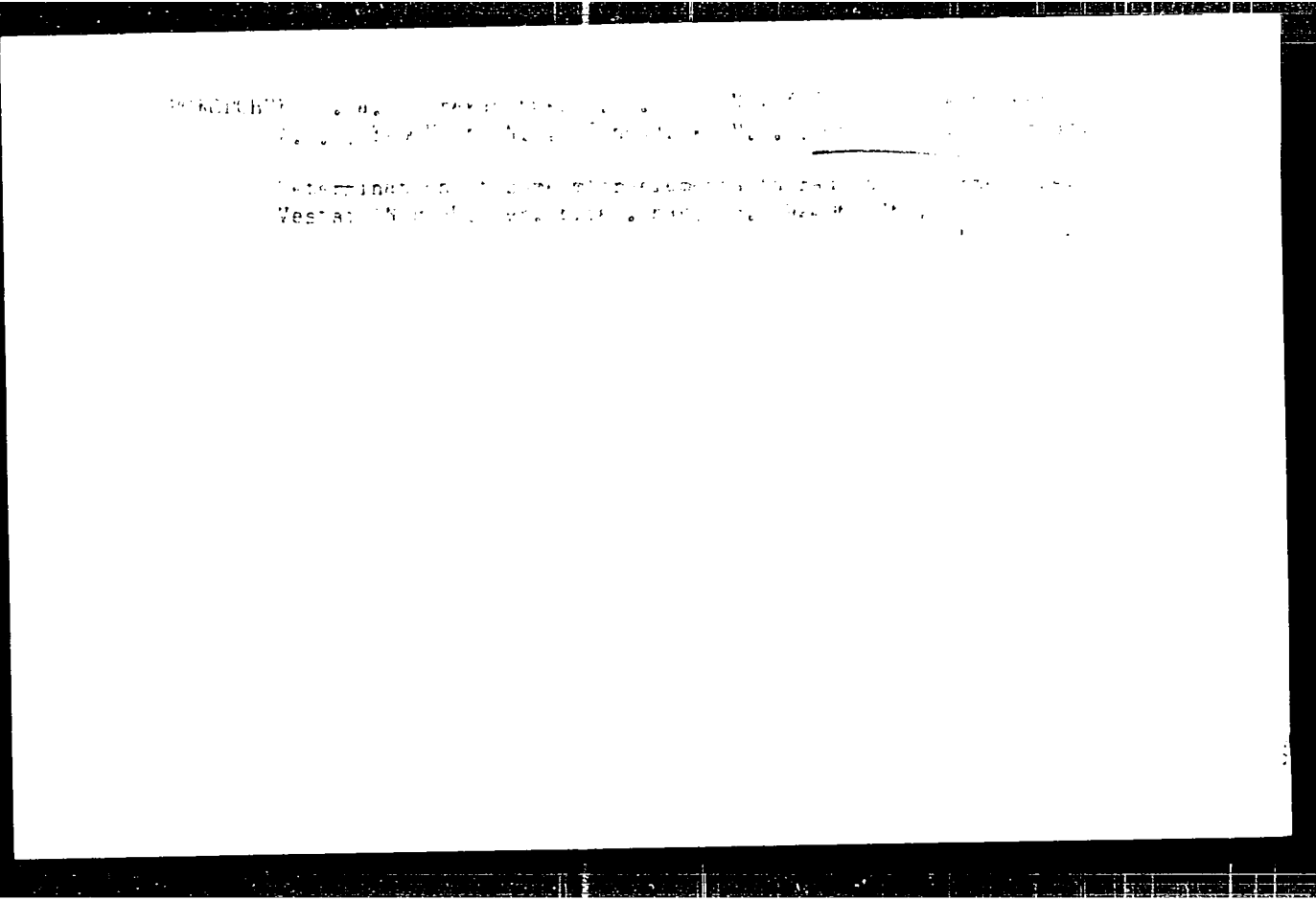
(SKIN--DISEASES) (COPPER IN THE BODY)
(X RAYS--PHYSIOLOGICAL EFFECT)

SOSNOVSKIY, A.T.; ORLOVA, Z.I.; YAGOVDIK, N.Z. (Minsk)

Cobalt and nickel in radiation dermatitis. Vrach. delo no.9:
155-156 8'33. (MIRA 16:10)

1. Belorusskiy nauchno-issledovatel'skiy kozhno-venerologicheskii institut.

(SKIN — DISEASES) (COBALT IN THE BODY)
(NICKEL IN THE BODY) (RADIATION — PHYSIOLOGICAL EFFECT)



ORLOVA, Z.M., kand. tekhn. nauk, dots.; TALPOROVSKAYA, V.V., kand. tekhn.
nauk, dots.

Increasing the evenness of silver from LVS-305 drawing frames.
Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.1:78-82 '58.

(MIRA 11:5)

1. Ivanovskiy tekstil'nyy institut.
(Spinning machinery)

ORLOVA, Z.M.; TALEPOROVSKAYA, V.V.

Establishing operating cycles for vertical and horizontal openers
used in processing machine-gathered cotton. Izv.vys.ucheb.zav.;
tekh.tekst.prom. no.2:67-74 '58. (MIRA 11:5)

1. Ivanovskiy tekstil'nyy institut.
(Cotton machinery)

ORLOVA, Z.M.

Investigating the parameters of flyer frame winding in
processing staple fibers. Izv.vys.ucheb.sav.; tekhn.tekst.
prom. no.1:60-69 '60. (MIRA 13:6)

1. Ivanovskiy tekstil'nyy institut.
(Textile fibers, Synthetic) (Winding machines)

ORLOVA, Z.M., dots.; TALEPOROVSKAYA, V.V., dots.; MORAKHOVA, L.A.,
inzh.; YURKOVA, V.A., inzh.; CHAYANOV, A.A., red.;
VASILENKO, A.N., red.

[Manufacture of dress and suit fabrics of mixtures of
lavsan with cotton and viscose fibers] Proizvodstvo pla-
tel'nykh i kostiumnykh tkanei iz smesei lavsana s khlop-
kom i viskoznykh voloknom. Moskva, 1963. 31 p.

(MIRA 17:5)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy
informatsii legkoy promyshlennosti.

ORLOVA, Z. M.

ORLOVA, Z. M. -- "Tuberculin Therapy Using Electrophoresis." Khar'kov
Medical Inst. Khar'kov, 1955.
(Dissertations for the Degree of Candidate in Medical Sciences).

SO: Knizhnaya Letopis', No 9, 1956

KBEL'NITSKIY, B.M., professor; **BUNINA, B.Z.**; **PINSKAYA, R.M.**; **LERMAN, R.I.**;
ORLOVA, Z.M.; **ZAYKO, A.P.**

Treatment of early forms of tuberculosis. Probl.tub. 34 no.4:23-28
Jl-Ag '56. (MIRA 9:11)

1. Iz Ukrainskogo Instituta tuberkuleza i kafedr tuberkuleza
Meditsinskogo instituta i Instituta usovershenstvovaniya vrachey
v Khar'kove.

(TUBERCULOSIS, PULMONARY, ther.
in early develop.)

ORLOVA, Z.M. kand.med.nauk

Tuberculin therapy by means of electrophoresis. Pat.klin.i terap.
tub. no.8:148-151 '58. (MIRA 13:7)

1. Iz kafedry tuberkuleza (zav. - prof. B.M. Khmel'nitskiy)
Khar'kovskogo meditsinskogo instituta.
(TUBERCULIN) (ELECTROPHORESIS)

ORLOVA, Z.M., kand. med. nauk

Tuberculosis of the thyroid gland. Probl. tub. 36 no.8:93-95
'58. (MIRA 12:7)

1. Iz kafedry tuberkuleza (zav. - prof. B. M. Khmel'nitskiy)
Khar'kovskogo meditsinskogo instituta (dir. - dotsent I. P.
Kononenko).
(TUBERCULOSIS) (THYROID GLAND)

ORLCVA, Z N

PHASE I BOOK EXPLOITATION

SOV/4668

Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka

Metody analiza produktov proizvodstva sinteticheskogo kauchuka (Methods for Analyzing Products Obtained in the Manufacture of Synthetic Rubber) Leningrad, Gokhimizdat, 1960. 121 p. Errata slip inserted. 4,000 copies printed.

Sponsoring Agency: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka imeni akad. S.V. Lebedeva.

Ed.: Ye. I. Shur; Tech. Ed.: T.A. Fomkina.

PURPOSE: This book is intended for scientists and technical personnel of chemical laboratories of the synthetic rubber, resin, petroleum, natural gas, textile, tanning, and other industries. It may also be used as a textbook for chemistry students in higher educational institutions and tekhnikums.

COVERAGE: The book contains 20 articles reviewing methods for analyzing raw materials and intermediate products used in the manufacture of synthetic rubbers and

Card 1/5

Methods for Analyzing Products (Cont.)

SOV/4668

elastomeric substances and that were developed at the All-Union Scientific Research Institute for Synthetic Rubber imeni S.V. Lebedev and at Soviet synthetic rubber plants. No personalities are mentioned. References accompany the articles.

TABLE OF CONTENTS:

Isakova, N. A., A.M. Rakhmanina, and Z.N. Orlova. Determination of Hydrocarbons of Normal Structure in Mixture With Hydrocarbons of Isostructure (For the Fraction C5)	3
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Dvoryanchikova, V.N. Determination of Diethyl Ether, Amylene and Piperylene in the Residuum From the Distillation of 1,3-Butadiene	27

Card 2/5

Colorimetric determination of nekal in rubber. Kauch.i rez. 21 no.4:48-49 Ap '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka.

(Nekals) (Rubber)

UAKLVA. 2. 1

GOLUBEVA, Zinaida Sergeevna; KOROBAKOV, Yevgeniy Zakharovich; ORLOVA, Zoya Pavlovna; TSIUNGHIK, R.I., spetsredaktor; KUZMINA, V.S., red.; CHEBYSEVA, Ye.A., tekhn. red.

[Hydraulic engineering and improvements in fish culture] Rybo-
khoziaistvennaia gidrotekhnika i melioratsiia. Moskva, Pishche-
promizdat, 1957. 299 p. (MIRA 11:6)
(Hydraulic engineering) (Fish culture)

L0232

S/169/62/000/007/086/149
D228/D307

3.5800

AUTHORS: Shteyn, N. I. and Orlova, Z. P.

TITLE: Investigating the regime of ultrashort-wave radio-transmitters of the type ПРБ-1.5 (PRB-1.5)

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 10, abstract 7B54 (Tr. N.-i. in-ta gidrometeorol. priborostr., no. 7, 1959, 85-91)

TEXT: The authors state the results of investigations of radio-sonde USW-radiotransmitters, emitting self-modulated oscillations on a carrier frequency of about 215 Mc/s at radio-impulse tracking frequencies from 200 to 3000 c/s and more. It was established that the objective characteristics of the investigated radiotransmitters testify to the insufficient perfection of their design, the form of the connection of the emitter with the oscillatory circuit being especially unsatisfactorily decided. The stability of the transmitters frequency in relation to changes in the power-supply

Card 1/2

Investigating the regime ...

S/169/62/000/007/086/149
D228/D307

conditions was also found to be totally inadequate for ensuring that the signals of a contemporarily coded radiosonde are accurately transmitted when it is at a considerable distance from the site of discharge. In conclusion it is stated that this type of transmitter, which was formerly applied together with radiosondes of Professor Molchanov's system, cannot in its actual parameters guarantee high-quality atmospheric sounding if the device is used for more perfect radiosondes of the A-22 (A-22) type. Steps must, therefore, be taken to perfect substantially this type of transmitter. / Abstracter's note: Complete translation. /

Card 2/2

ORLOVA, N.P.; GORBUNOV, N.S.; TITOVA, V.A., eds.

[Hydraulic structures in design and construction; Gidrotekhnicheskie sooruzheniia v rybnom khoz-
ziaistve. (Hydraulic structures in design and construction.) Moscow, 1984. 170 p.

MATTISEN, Anatoliy Ernstovich; MARTYSHEV, F.G., prof., doktor
sel'khoz. nauk, retsenzent; CHLOVA, Z.P., nauchn. red.;

[Hydraulic engineering and land improvement in fish
culture] Gidrotekhnika i melioratsiia v rybovodstve.
Moskva, Vysshiaia shkola, 1965. 299 p. (MIRA 19:1)

ORLOVA, Z. V.

"Biological Characteristics of Erysipelatous Microbes Obtained from Pigs," 2 pp.

Cultures of erysipelatous and similar microbes in ordinary growth media **MTA** and **MTB** are basically indistinguishable. Atypical strains were also isolated.

SO: Veterinariya; No. 7; July 1948, Unclassified.

Head of Epizootic Department, Sci. Practical Vet. Lab., "Mosssovvet."

DUBROVIN, G.D.; BELYAYEV, M.G.; ORLOVA, Z.V.; KALMYKOV, S.T.; SERGEYEVA, T.Ya.
PUSHKAREVA, V.I.

Unrefined biomycin in stockbreeding. Veterinaria 36 no.12:55-58
D '59. (MIRA 13:3)

1. Nauchno-proizvodstvennaya laboratoriya po bor'be s boleznyami
molodnyaka sel'skokhozyaystvennykh zhiivotnykh Ministerstva sel'skogo
khozyaystva RSFSR.
(Aureomycin) (Stock and stockbreeding)

SHILO, N.A.; ORLOVA, Z.V.

Middle Quaternary glacial spore-pollen complex from the alluvium in the Kolyma River. Sov. geol. 3 no.8:115-119 Ag '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zolota i redkikh metallov.

(Kolyma River--Alluvium)

(Palynology)

ORLOVA, Z.V.

Facies structure, lithological characteristics, and age of alluvial
sediments in the Ichuveysm basin. Trudy SVKNII no.3:11-36 '63.
(MIRA 17:11)

KARTASHOV, I.P.; ORLOVA, Z.V.

Geology of the fluvial plains in the western Chukchi Peninsula. Dokl. AN SSSR 153 no.6:1400-1403 D '63.

(MIRA 17:1)

1. Severo-Vostochnyy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom A.A. Grigor'yevym.

ORLOVA, Z.V.

Spore pollen spectra of the alluvium of recent fluvial plains
in western Chukchi and their stratigraphic importance.
Dokl. AN SSSR 154 no.2:344-347 Ja'64. (MIRA 17:2)

1. Severo-Vostochnyy kompleksnyy nauchno-issledovatel'skiy
institut Sibirskogo otdeleniya AN SSSR. Predstavleno
akademikom A.A. Grigor'yevym.

ORICVA. 4.3e.

Range of the assimilation of the stimulation rhythm at different levels of the central nervous system in a frog. Nauch. trudy Ruz. med. inst. 15:115-118 62. (MIRA 17)

1. Kafedra normal'noy fiziologii (zast. kafedroy - prof. V.F. Shirokiy) Ryazanskogo meditsinskogo instituta imeni Pavlova.

ORLOVIC, D.

The attack at Licko Petrovo Selo in November 1942. p. 77.
(GLASNIK, Vol. 11, No. 2, Feb. 1957.

SO: Monthly List of East European Accessions (BEAL) Vol. 1, No. 12, Dec. 1957
Uncl.

L 56721-65
AMS013552

BOOK EXPLOITATION

YU/ 12- RT

Jadrijevic, Filip (Colonel); Vuicic, Liubomir (Colonel); Jelaca, Milan (Colonel); Orlovic, Miodra (Colonel)

General tactics of the infantry (Opsta taktika kopnene vojske). Belgrade, ["Vojno delo"], 1964. 485 p. illus. Errata slip inserted. 7000 copies printed.

TOPIC TAGS: tactics, infantry tactics, armored forces tactics, guerilla tactics, defense tactics, combat tactics

PURPOSE: This book is designed to acquaint military personnel with general infantry tactics.

COVERAGE: The book covers the essentials of general tactics and deals particularly with the tactics used in the infantry and armored forces. Basic concepts of tactics, command, security military and guerilla

L 56731-65

AM5013552

0

- I. Tactics as a branch of the military sciences -- 7
- II. Elements of tactics -- 25
- III. Basic principles of tactics -- 135
- IV. Tactical commands -- 150
- V. Safety of tactical actions -- 179
- VI. Combat actions -- 216
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- VIII. Resting -- 475

SUB CODE: MS

SUBMITTED: 0000064

NO REF SOV: 002

OTHER: 139

Card *DP* 2/2

9,2165 (1001, 1331 only)

886h2
S/110/61/000/001/008/023
E194/E455

AUTHORS: Biryukova, A.I., Engineer., Orlovich, T.M., Engineer
and Solomonik, S.S.

TITLE: Characteristics of Winding Wires With Oxide Insulation

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TEXT: In recent years there has been a considerable increase in the demand for winding wires that can operate at a temperature of 400 to 500°C. None of the available types of organic insulation can work at this temperature even for a short time. Hence, wires insulated with aluminium oxide film 10 to 20 microns thick produced by anodizing are of particular interest. This method of insulation was suggested long ago but only recently has been developed satisfactorily. Engineers V.Akulichev and P.Gavrilin have built a laboratory equipment for continuous oxidation of aluminium and tri-metallic wires. This article gives the results of investigations of the electrical, insulating and mechanical properties of aluminium and tri-metallic wires with oxide insulation. The structure of oxide insulation is first discussed. If the electrolyte is one that does not dissolve, the oxide, as is the case with boric acid, a thin, non-porous, so-called barrier
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layer is formed, its thickness depending on the forming voltage. This barrier layer has good dielectric properties and is used in capacitors but it is not suitable for wire insulation because it is too brittle. However, the oxidizing electrolyte may be one that dissolves the oxide. Various acids, including boric acid, have this action. The process of film formation is then more complicated. Pores are formed in the barrier layer through which current passes and locally increases the temperature, so increasing the rate of solution. The pores penetrate into the metal and a cylindrical cell of oxide is formed around them. The aluminium remaining between the cylindrical cells is gradually converted into oxide. The structure of the oxide film obtained depends on the type of electrolyte and the value of the forming voltage; formulae have been given for calculating the size of the pores. The film formed by anodizing at voltages greater than 100 V is $\gamma\text{Al}_2\text{O}_3$. Under normal conditions the oxide film is of amorphous structure and only at 1200°C is it converted into corundum, $\alpha\text{Al}_2\text{O}_3$. On hydration (formation of a film in water at a

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temperature of 80 to 100°C) part of the oxide is converted into the mono-hydrate $\gamma\text{Al}_2\text{O}_3$, which is of large volume and fills up the pores, giving the film all the advantages of a low-porosity coating. Tests were made on wires with impregnated and unimpregnated oxide insulation of the following types: aluminium wires of 0.3 to 1 mm diameter, trimetallic wires of 0.3 to 0.6 mm diameter. On both types of wire the oxide coating was of the porous-cellular structure and was produced by continuous anodizing in baths of sulphuric or oxalic acid using alternating current. Various methods of measuring the thickness of oxide films are described and a method is recommended which gives errors not greater than 20 to 25%. The thickness of the oxide films on the wires investigated by this method ranged from 12 to 20 microns. The layer of oxide, being porous, acts as a matrix of air insulation round the aluminium wire. Breakdown of the oxide film should, therefore, be considered as discharge along the internal surface of the pores. If the relative humidity is low, the surface breakdown voltage coincides with the breakdown voltage of

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the air. However, even normal room humidity considerably reduces the surface discharge voltage and when wires with oxide insulation are placed in surroundings of 95 to 98% relative humidity, the breakdown voltage is reduced by 30% in 48 hours. The method of determining the breakdown voltage is described. Instantaneous breakdown voltages were of the order of 600 V, falling after 9 hours to about 400 V. The phenomenon of restoration of electric strength after breakdown is discussed. It occurs because the oxide film itself is not damaged unless a heavy breakdown current is allowed to flow for some time. Whereas the electric strength of enamelled wire falls off rapidly in the temperature range of 120 to 250°C, the electric strength of wire with oxide insulation falls by only 30% at a temperature of 500°C. In practice, the breakdown voltage is independent of temperature and the resistance of the oxide to corona is not reduced at temperatures up to 500°C. The electric strength of the wires tested was every bit as good as that of corresponding wires of foreign manufacture. Insulation resistance was difficult to measure and the value obtained at room temperature depends very

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much on the humidity of the air. The insulation resistance of unhydrated specimens is 2 or 3 times less than that of hydrated specimens under normal ambient conditions, though the two kinds of wire behave identically when tested at high temperatures where no moisture is present. At temperatures of the order of 300°C the insulation resistance of oxide insulated wire, whether with silicone varnish or not, is of the order of 10^3 megohms/metre. A method of checking the continuity of the oxide layer is described; it was frequently used during production. Bending tests are also described. Bending wires around rods which stretch the film by 10 to 25% reduces the breakdown strength to 20% of its initial value. Stretching by 10 to 25% after holding at a temperature of 300 to 500°C reduces the breakdown strength to 30%. Repeated bending tests showed that the elasticity and mechanical strength of oxidized conductors are not so good as those of enamelled types, but are not bad enough to prevent their use as winding wires. When using oxide-insulated conductors the insulation may be stretched up to 25% depending on the electrical

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requirements. Tests of resistance to wear are described; wires with oxide insulation were as good in this respect as enamelled wires. The main disadvantage of winding wires with oxide insulation is the porosity and brittleness of the oxide layer. When used in the manufacture of motors, the wires are protected against mechanical damage, and their resistance to moisture is improved, by applying a protective coating. Silicone varnish is used for this purpose. At room temperature the insulation resistance of the varnished wires is much better than that of the unvarnished oxide insulation, but as higher temperatures are reached the two come to have similar properties. If, after holding for some hours at 400°C, the temperature is reduced to the normal ambient value, the insulation resistance gradually recovers its initial value. Anodized wires varnished with silicone also have high breakdown strength and good resistance to moisture. Accordingly, electric strength tests on these wires can be made in water. After holding for 50 hours at 400°C, the value of the breakdown strength as tested in water was the same as before ageing.

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For further improvement of oxide-insulated wires it is necessary to develop a varnish for an operating temperature of 400 to 500°C. There are 8 figures, 3 tables and 6 references: 4 Soviet and 2 non-Soviet.

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COUNTRY	: Rumania	R-13
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ABS. JOUR.	: SZRBia., no. 21 1959, no.	75619
AUTHOR	: Chelarescu, A., Urnescu, B., Nibita, C., Mihal, P.	
	: Iasi Polytechnic Institute	
TITLE	: A Method for the Determination of the Composition of Large-Pore Concrete. I, II.	
ORIG. PUB.	: Bul Inst Politehn Iasi, 3, No 3-4, 271-280 (1957)	
ABSTRACT	: The results from laboratory studies undertaken for the purpose of determining the effect of various factors on the thickness of the film of hydrated cement surrounding the particles of aggregate are given. The data obtained permit a calculation of the optimum cement/water ratio for a given grade of large-pore concrete.	
	: Va. Matlis	
CARD: 1/1	: A. Puzosel, E., Diau, V., Tudoran, A., Dumitrescu, T., Ciobotaru, V., and Orlovski, E.	

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