

START

Reel # 99
Davy *dova, O.A.

ACCESSION NR: AT4017172

8/2546/63/000/128/0064/0078

AUTHOR: Davy*deva, O. A.; Pionina, G. M.

TITLE: Results of a forecast of the development of high-level cyclones and anticyclones

SOURCE: Moscow. Tsentral'nyy institut prognozov. Trudy*, no. 128, 1963.
Voprosy* kratkosrochny*kh prognozov pogody* (Problems of short-range weather forecasting). 64-78

TOPIC TAGS: meteorology, weather forecasting, short-range weather forecasting, atmospheric geopotential, cyclone, anticyclone, atmospheric pressure, wind, wind divergence, atmospheric vorticity

ABSTRACT: The method for computing diurnal changes of geopotential at the centers of cyclones and anticyclones at the 850- and 700-mb surfaces is described; this method is essentially that developed over a period of years by B. D. Uspenskiy and repeatedly described in the literature (for example, by the author in *Meteorologiya i gidrologiya*, No. 1, 1961). The modification introduced here involves an allowance for the angles between the meridians on the chart and the parallel straight lines on the rectangular grid at whose points of intersection data are read for determination of wind divergence, vorticity and other values entering into pro-

Card 1/2

ACCESSION NR: AT4017172

gnostic formulas. Formulas are given for all the steps necessary in implementing the modification. The method described was applied to 25 synoptic situations for forecasting the development of cyclones and anticyclones, yielding results superior to the unmodified method. Detailed results are given of a forecast made of development of a particular cyclone. Orig. art. has: 20 formulas, 8 figures and 3 tables.

ASSOCIATION: TSENTRAL'NIY INSTITUT PROGNOZOV (Central Institute of Forecasts)

SUBMITTED: 00

DATE ACQ: 24Feb64

ENCL: 00

SUB CODE: AS

NO REF SOV: 008

OTHER: 000

no ref sov

other

Card

2/2

ACCESSION NR: AT4017177

S/2546/63/000/128/0155/0159

AUTHOR: Baydina, N. A.; Davyrdova, O. A.; Konyukhova, M. S.

TITLE: Experience in preparing forecasts of the surface fields of pressure, geopotential, temperature, wind, cloud cover and precipitation for 12 hours in advance

SOURCE: Moscow. Tsentral'nyy Institut prognozov. Trudy*, no. 128, 1963. Voprosy* kratkosrochny*kh prognozov pogody* (Problems of short-range weather forecasting), 155-159

TOPIC TASS: meteorology, weather forecasting, short-range weather forecasting, atmospheric geopotential, atmospheric temperature, atmospheric pressure, cloud, precipitation, wind, troposphere

ABSTRACT: Weather forecasts in the Soviet Union are usually prepared for a small area (except for pressure) on the basis of the method described in the Manual on Short-Range Weather Forecasting; however, forecasts are needed for extensive areas. Various attempts have been made by different authors to speed up and simplify procedures to make a more extensive forecast possible, but at the expense of quality; nevertheless, as shown in this article, forecasts can be made speedily for extensive areas while adhering to the basic procedures and quality standards set forth in the Manual. A study was made over a period of 11 days in July 1959.

Card 1/2

ACCESSION NR: AT4017177

Prognostic charts of the cloud cover, precipitation and other meteorological elements were compiled for 12 hours in advance. The following prognostic charts were compiled: surface pressure, 700-, 500- and 300-mb surfaces, cloud cover (genera and vertical thickness) and precipitation. The mean geostrophic wind in the 1000-300 mb layer also was predicted. The formulas and techniques used in each of these procedures are given. A sample forecast, described briefly, showed good results. The time required for 4 weathermen to do all the work involved is 2-2-1/2 hours; the Manual is adhered to and earlier proposed simplifications have been avoided. At the same time, more complete use has been made of the observational data shown on high-level and surface charts. Orig. art. has: 1 figure, 4 formulas and 4 tables.

ASSOCIATION: TSENTRAL'NY*Y INSTITUT PROGNOZOV, MOSCOW (Central Institute of Forecasts)

SUBMITTED: 00

DATE ACQ: 24Feb64

ENCL: 00

SUB CODE: AS

NO REF SOV: 004

OTHER: 000

Card 2/2

USPENSKIY, B.D., doktor fiz.-mat. nauk, prof.; BELOUSOV, S.L., kand.
fiz.-mat. nauk; PYATYGINA, K.V.; YUDIN, M.I.; MERTSALOV,
A.N., kand. fiz.-mat. nauk; DAVYDOVA, O.A.; KUPYANSKAYA,
A.P.; PETRICHENKO, I.A.; MORSKOV, G.I.; TOMASHEVICH, L.V.;
SAMOYLOV, A.I.; ORLOVA, Ye.I.; DZHORDZHIO, V.A.; PETRENKO,
N.V.; DUBOVYY, A.S.; ROMOV, A.I.; PETROSYANTS, M.A.; GLAZOVAYA,
T.F.; BEL'SKAYA, N.N.; CHISTYAKOV, A.D.;
GANDIN, L.S.; BURTSEV, A.I.; MERTSALOV, A.N.; SAGROVYY, N.A.;
BELOV, P.N.; ZVEREV, A.S., retsenzent; SIDENKO, G.V., red.;
red.; DUBENTSOV, V.R., kand. fiz.-mat. nauk, nauchn. red.;
SAGATOVSKIY, N.V., red.; BUGAYEV, V.A., doktor geogr. nauk,
prof., red.; ROGOVSKAYA, Ye.G., red.

[Manual on short-range weather forecasts] Rukovodstvo po
kratkosrochnym prognozam pogody. Leningrad, Gidrometeoizdat.
Pt.1. Izd.2., perer. i dop. 1964. 519 p. (MIRA 18:1)

1. Moscow. Tsentral'nyy institut prognozov.

DAVYDOVA, O.D.

Practices in the use of waterproofed wood for wooden goods.
Bum. i der. prom. no.2:41-44 Ap-Je '64.

(MIRA 17:9)

2/19/52 (VA) (11)

BLAGOVESHCHENSKIY, A.V.; DAVYDOVA, O.L.; PRISNYAKOVA, M.A.

Biochemical characteristics of the crowfoot family. Biul.Glav.bot.sada
no.14:29-33 '52. (MLRA 6:5)

1. Glavnyy botanicheskiy sad Akademii Nauk SSSR,
(Ranales) (Plants--Chemical analysis)

EL'BERT, B.Ya.; KRASIL'NIKOV, A.P.; IZRAITEL', N.A.; DAVYDOVA, O.V.;
FAL'SHTEYN, B.A.

Investigation of the fishes of the Pripet River Basin as bearers
of the scleroma bacillus. Zhur. ush., nos. 1 gorl. bol. 21 no.2:
39-44 Mr-Apr '61. (MIRA 14:6)

1. Kafedra mikrobiologii (zav. - prof. B.Ya.El'bert) Minskogo
meditsinskogo instituta.
(RHINOSCLEROMA) (PRIPET RIVER BASIN—FISHES)
(FISH AS CARRIERS OF DISEASE)

AZAROV, K.P.; DAVYDOVA, P.P.

Effect of preparing a metal surface on the quality of enamels
without ground coating. Trudy NPI 154:53-61 '63.

(MIRA 17:10)

DAVYDOVA, R.A.

Species of the genera *Cylindropuntia* and *Opuntia* growing outdoors
in Ashkhabad. Izv. Ak. Turk. SSR. Ser. biol. nauk no.5:46-53 '63.

J. Botanicheskij i Turkomanskij SSR.

EROLOV, P.N.; DAVYDOVA, R.G.

Hydraulic forging press of 800-ton capacity manufactured by the
firm "Fielding." Kus. shtam. proizv. 2 no. 12:38-44 D '60.

(MIRA 14:3)

(Hydraulic presses)

L 16089-65 EWT(d)/EWT(m)/EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWP(t)
ACCESSION NR: AT4048350 P244 JD/HW S/3000/64/000/008/0095/0042

AUTHOR: Frolov, P. N. (Engineer), Matveyev, I. B. (Candidate of technical sciences), 6H
Davydova, R. G. (Engineer), Gutsalskaya, F. F. (Engineer)

TITLE: Hydraulic impact presses

SOURCE: Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogomashinostroyeniya. Nauchnyye trudy, no. 8, 1964. Novoye v kuznechno-shtampovochnom proizvodstve (Latest developments in the forging industry), 30-42

TOPIC TAGS: hydraulic press, impact press, vibration forging, metal forging, cermet forging

ABSTRACT: The paper describes a theoretical investigation of a new type of hydraulic press which produces vibration in the forging dies by periodically supplying a fluid into the working cylinder and subsequently draining it. The plunger employed has a small stroke of 2-5 mm with respect to the cylinder, thereby decreasing significantly and making constant the losses due to compression of the fluid; the plunger, however, together with the cylinder, can be displaced for any given distance. The working pressure is obtained due to the inertia in the upward motion of the working cylinder, which has considerable mass (the weight of the cylinder exceeds the weight of the plunger 10-20 times).
Card 1/3

L 16089-65

ACCESSION NR: AT4048350

The advantage of this press is not only the application of a periodic impact load to the workpiece, which decreases the resistance of metals to deformation by 20-30% and the resistance to deformation of friable materials by a factor of 3 to 5, but also the considerably smaller weight of the press. The first experimental model of the press giving a working pressure of 5.3 tons was constructed in 1959. A description is given of a later model constructed during 1960-1961 in the authors' Institute. The following basic elements determining the efficiency and originality of the pump are described: The hydraulic system of the pulse mechanism, the design of the cylinder and the plunger, the hydroinertial head and also the construction of two valves of reciprocating action — the pulsating valve and the draining valve. The remaining elements of the press can be those commonly used and are not described. Experiments were made involving pressing metals and refractory mixtures at a frequency of vibration of 120-400 vibrations per minute (2 to 6.7 cps). The vibration frequency can be increased to 800-1000 vibrations per minute (13.3-16.7 cps) for a plunger stroke of 2-5 mm. The vibration can be smoothly controlled. For the hydraulic drive, pumps having pressures within the limits of 200-400 kg/cm² and a discharge rate of 0.64-1.67 liters/sec. can be used. The

2/8
Card

L 16089-65
ACCESSION NR: AT4048350

calculated working pressure of the press described corresponds approximately to 200 tons of static pressure for a maximum pressure in the system of 400 kg/cm². It is concluded that presses of this type can be used for pressing not only friable refractory mixtures but also metals and cermets. Orig. art. has: 6 formulas and 3 figures.

ASSOCIATION: Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogo mashinostroyeniya, Moscow, (Experimental Scientific Research Institute of Forging Machinery)

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, NM

NO REF SOV: 000

OTHER: 000

Card 3/3

ACC NR: AP7002613 (A, V) SOURCE CODE: UR/0413/00/000/023/0100/0100

INVENTOR: Vasil'yev, B. P.; Davydova, R. G.; Platonov, V. N.

ORG: None

TITLE: A device for automatic control of a hydraulic vibrator. Class 58, No. 189312
[Experimental Scientific Research Institute of Forging and Pressing Machine Building
(Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogo
mashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 128

TOPIC TAGS: hydraulic device, metal press

ABSTRACT: This Author's Certificate introduces a device for automatic control of a hydraulic vibrator, specifically for a hydraulic vibration press operating from a constant high-pressure source of working fluid. The unit contains high-speed pulser valves for feeding the working fluid to the cylinder of the working element and a device for filling the cavities above the valves. Vibration frequency is increased and control is simplified by making the device for filling these cavities in the form of a single-stage unit consisting of a chamber located in the cylinder housing where a hydro-pneumatic cushion is set up for pressure control of a relief valve.

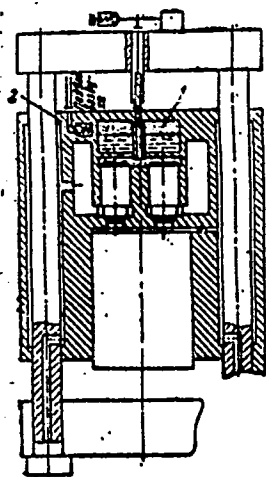
Card 1/2

UDC: 621.226

0930

2727

ACC NR: AP7002613



1--chamber; 2--relief valve

SUB CODE: 13/ SUPM DATE: 04Nov64

Card 2/2

DAVIDOVA, R. M.

At the Ryazan Machine-Tool Plant. Mashinostroitel' no.12:42
D '62. (MIRA 16:1)

(Ryazan-Machine-tool industry)

DAVYDOVA, R.M.

Tables made of laminated plastics. Mashinostroitel'
no.11:38 N '62. (MIRA 15:12)
(Plastics)

DAVYDOVA, R.M.

Hermetic sealing of units of machine tools. Biul.tekh.-ekon.inform.
Gos.nauch.-issl.inst.nauch.i tekhn.inform. 17 no.1:45-46 '64.
(MIRA 17:2)

SHAPIRO, Ye.A.; ZHUKOVSKIY, Ye.S.; MUSTAPABEKOVA, A.A.; MIKHAYLOV, N.D.;
KOBLYANSKIY, A.E.; KONONTEKHIN, A.G.; EPSHTEYN, R.R.; KARPINSKIY,
V.F.; DAVYDOVA, R.T.; TROITSKIY, V.I., red.; GOR'KOVA, A.A.,
vedushchiy red.; FEDOTOVA, I.G., tekhn.red.

[Establishing standards for material consumption and stocks in the
petroleum industry] Normirovanie raskhoda i proizvodstvennykh
zapasov osnovnykh materialov v neftianoi promyshlennosti. Moskva,
Gos.nauchno-tekhn.isd-vo nef. i gorno-toplivnoi lit-ry, 1959.
252 p. (MIRA 12:12)

(Petroleum industry--Standards)

DAVYDOVA, R. Z.

Davydova, R. Z.

"Investigation of the Exchange Adsorption of Anions on Synthetic Anionites." Min Higher Education Ukrainian SSR. Khar'kov Order of Labor Red Banner State U imeni A. M. Gor'kiy. Khar'kov, 1955. (Dissertation for the Degree of Candidate in Chemical Sciences)

So: Knizhnaya letopis', No. 27, 2 July 1955

DAVYDOV, A.Y.; DAVYDOVA, R.Z.

Study of the temperature dependence of the adsorption and the
exchange energy of silicic acid. Zhur.fiz.khim. 31 no.4:815-819
Ap '57. (MLRA 10:7)

1. Gosudarstvennyy universitet im. A.M.Gor'kogo i Sel'skokhozyaystvennyy
institut im. V.V.Dokuchayeva, Khar'kov.
(Silicic acids) (Anions) (Adsorption)

DAVY DODA, R. Z.

73-3-24/24

AUTHOR: Davydov, A. T. and Davydova, R. Z.

TITLE: Ion Exchange Sorption of Silicic Acid on H and H-o Anionites.
(Issledovaniye Ionnoy Obmennoy Sorbtsii Kremnevoy Kisloty Na Anionitakh Marki H i H-o)

PERIODICAL: Ukrainskiy Khimicheskiy Zhurnal, 1957, Vol. 23, No.3, pp. 415-419(USSR)

ABSTRACT: Silicic acid can be adsorbed from solutions with H and H-o anionites under static conditions and converted to anions of strong acids. B. P. Nikol'skiy's equation was checked in order to clarify the character of processes taking place during exchange-sorption silicic acid. The silicic acid was adsorbed on H and H-o anionites (synthesised in the Department for Plastic Substances of the Moscow Chemico-Technological Institute im. D.I. Mendeleeva). When the divalent anion adsorbent is changed to a monovalent adsorbent, Nikol'skiy's equation is as follows:

$$a = a_m - K^2 a \left(\frac{a}{5.000 C_0 - a} \right)^2$$

where a = quantity of divalent anion (in mg/ekv); desorbed from 2 g of the adsorbent, calculated on 100 g

Card 1/3

Ion Exchange Sorption of Silicic Acid on H and H-o Anionites. ^{73-3-24/24}

of the adsorbent;

a_m = Maximum adsorption (in mg/ekv) /100 g of the sorbent;

C_0 = initial concentration of the anion (in mole/litre)

K_0 = constant of change.

When plotted on a graph: $y = a$;
 $x = a \left(\frac{a}{50000 C_0 - a} \right)^2$

and linear isotherms are obtained. Experimental data, calculated by the method of least squares, are tabulated (Tables 1 and 2). The concentration of the anions was within the limits of 0.05-N to 1-N. The anionite H-o was shown to have greater practical importance which, during the conversion of silicic acid to carbonate ions, revealed a working capacity up to 90 mg/ekv per 100 g of adsorbent. This is 3-times larger than the capacity of glauconite. The anions can be arranged in the following order, according to their absorptive properties: $CO_3 > NO_3 > Cl > SO_4$ which represents the reverse order of adsorption occurring during an exchange on weakly basic anionites. There are 2 tables and 8 Slavic references.

Card 2/3

73-3-24/24

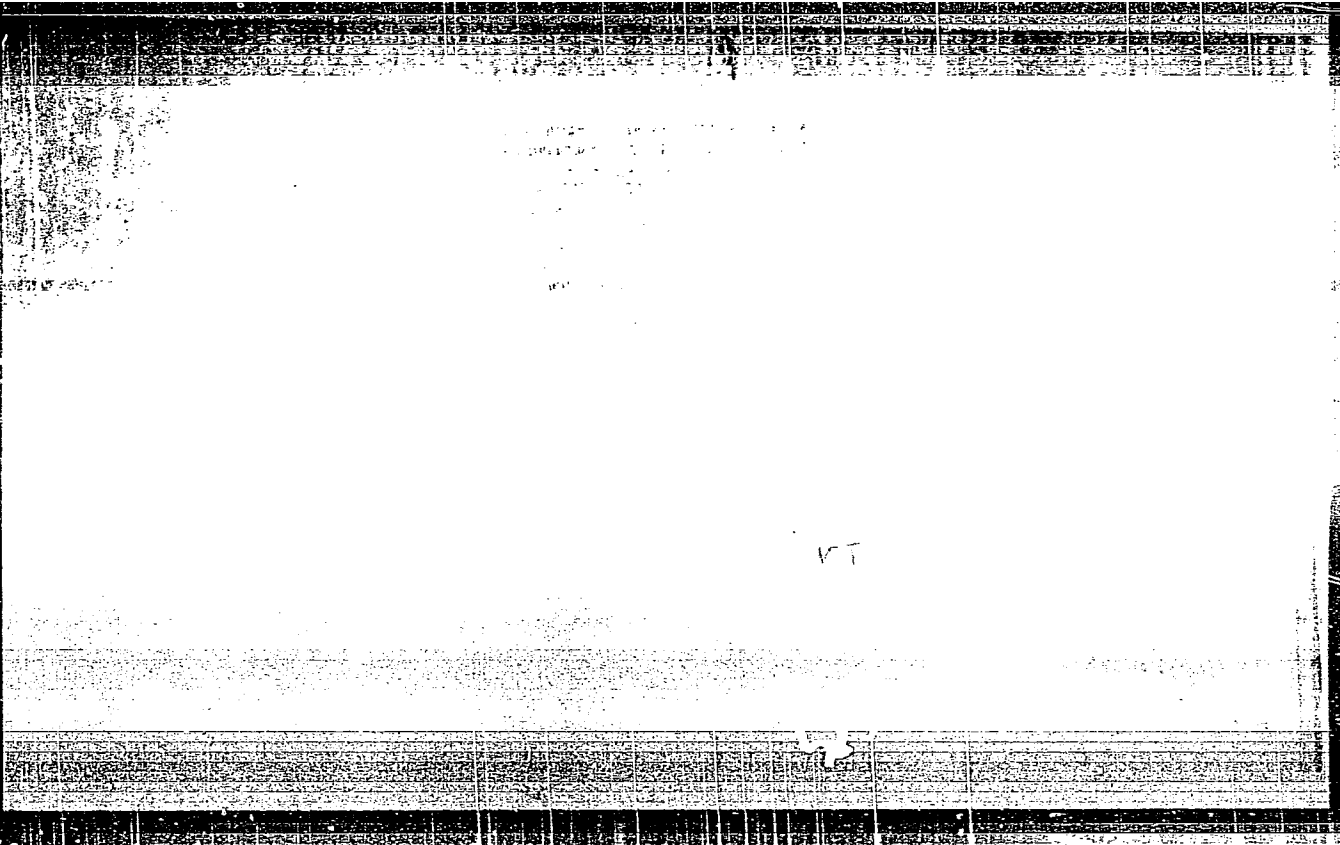
Ion Exchange Sorption of Silicic Acid on H and H-o Anionites.

SUBMITTED: September, 10, 1956.

ASSOCIATION: Kharkov State University imeni A. M. Gorkiy,
Agricultural Institute imeni V. V. Dokuchayev. (Khar'-
kovskiy Gosudarstvennyy Universitet im. A. M. Gor'kogo,
Sel'skokhozyaystvennyy Institut im. V. V. Dokuchayeva)

AVAILABLE: Library of Congress.

Card 3/3



Investigation of the Lows of Polyanionic Exchange

SCV-69-58-4-5/18

anionite for carbonate ions.

There is 1 table and 10 references, 8 of which are Soviet,
1 English, and 1 German.

ASSOCIATIONS: Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo
(Khar'kov State University imeni A.M. Gor'kiy)
Khar'kovskiy sel'skokhozyaystvennyy institut imeni V.V. Dokuchayeva
(Khar'kov Agricultural Institute imeni V.V. Dokuchayev)

SUBMITTED: June 2, 1956
1. Chromatographic analysis--Applications
2. Ion exchange--Applications

Card 2/2

DAVIDOVA, S., red.; MATVEYEVA, A., tekhn.red.

[Wood milling machinery and equipment] Derevoobrabatyvaiushchie
stanki i oborudovanie. Izd.ofitsial'noe. Moskva, 1961. 215 p.
(MIRA 14:6)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov,
(Woodworking machinery)

DAVYDOVA, S. A., Cand Med Sci -- (diss) "Peculiarities of reflex activity in dogs in acute radiation sickness." Mos, 1957. 13 pp (Acad Med Sci USSR), 250 copies (KL, 52-57, 111)

- 109 -

DAVYDOVA, S. A.

USSR/Human and Animal Physiology - Effects of Physical
Factors. Ionizing Radiation.

E-11

Abs Jour : Ref Zhur - Biol., No 13, 1953, 04689

Author : Gorizontov, R.D., Davydova, S.A.

Inst : "

Title : Exposing the Toxic Properties of Blood in Irradiated
Animals by Tests with Adrenalectomized Animals.

Orig Pub : Med. radiologiya, 1957, 2, No 5, 51-55.

Abstract : Rats were subjected to general X-ray irradiations with
2,000 r doses (output, 40.6 r/min); dogs received 500 r
doses (output, 15.1 r/min). After irradiation blood was
taken on the 1st, 2nd, and 3rd days, centrifuged for 15
minutes, and after 20-25 minutes the serum was intraperi-
toneally injected into previously (1 day before test)
adrenalectomized (A) mice (0.5 ml) and rats (1 ml). The
mortality of mice was investigated for 3 days following
injections, and of rats for 1 month. Sera (S) originating

Card 1/2

DAVYDOVA, S.A. (Moskva); GORIZONTOV, P.D., prof., nauchnyy rukovoditel'

Protective and therapeutic effect of somatotropic hormone
in acute radiation sickness. Pat. fiziol. i ekup. terap. ?
no.4:64-65 J1-Ag '63. (MIRA 1969)

1. Deystvitel'nyy chlen AMN SSSR (for Gorintov).

DAVYDOVA, S.A.; SHCHERBOVA, Ye.N.

Use of diazoline in experimental acute radiation sickness.
Pat. fiziol. i eksp. terap. 7 no.6:72 N-D '63.

(MIRA 17:7)

L 22781-66 EWT(m) JXT(RML)

ACC NR: AP6007762

SOURCE CODE: UR/0205/66/006/001/0093/0095

AUTHOR: Davydova, S. A.; Dorofeyev, V. M.; Yakovlev, V. G.

ORG: none

TITLE: The possibility of isolating radiation protection agents on the basis of the total quantity of Diche-positive compounds in urine

SOURCE: Radiobiologiya, v. 6, no. 1, 1966, 93-96

TOPIC TAGS: gamma irradiation, radiation protection, ionizing radiation

ABSTRACT: An attempt was made to establish a correlation between the biological protective effect and the capacity of protection agents to influence the production of Diche-positive compounds (DPC) in the urine of irradiated organisms. Earlier researchers noted a considerable DPC increase in the urine of irradiated animals and suggested that this reaction was a specific feature of radiation sickness; they also suggested that the reaction could be used to diagnose and isolate radiation protection agents. In order to check these theories, rats of both sexes were exposed to Co⁶⁰ gamma rays (700 rad), after having received protective doses of 1 of 24 preparations (sulfur-containing radiation protection agents, high molecular compounds, indole derivatives, and others). It was found that irradiation increased DPC production in the urine by 58% over the initial level. The authors conclude that the rise in the DPC level in

UDC: 577.391;628.58

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ACC NR: AP6007762

the urine of irradiated animals is not a feature specific to ionizing radiation and that the amount of DPC is not a reliable criterion for isolating radiation protection agents. The effect of the 24 preparations on DPC production in the irradiated rats is presented in tabular form. Orig. art. has: 3 tables. [14]

SUB CODE: 06/ SUBM DATE: 10N v64/ ORIG REF: 013/ OTH REF: 004

ATD PRESS: 4229

Card 2/2 BK

DAVYDOVA, S.D.

KORZHEV, Pavel Petrovich, pri uchastii K.Ya.Parmenova, S.D.Davydova,
Ya.L.Gol'dfarba, A.B.Neydinga; POZDNYAKOVA, N.I., red.; SMIRNOV,
G.I., tekhn.red.

[Chemistry manual for teachers of secondary schools] Spravochnik
po khimii dlia uchitelei srednei shkoly. Izd. 4-oe, ispr. i dop.
Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1958.
423 p. (MIRA 11:5)

(Chemistry--Laboratory manuals)

DAVYDOVA, S.A. (Moskva)

Effect of sex hormones on the course of acute radiation sickness.
Pat. fiziol. eksp. ter. 7 no. 5:45-48 S-0'63 (MIRA 17:2)

2
KOLEBNIKOVA, O.S., DAVIDOVA, S.I., KLDMENTOVA, N.V.

The synthesis of metacrylates and acrylates containing aluminum, boron, germanium.

Report submitted for the 12th Conference on high molecular weight compounds devoted to monomers, Baku, 3-7 April 62.

79-28-4-9/60

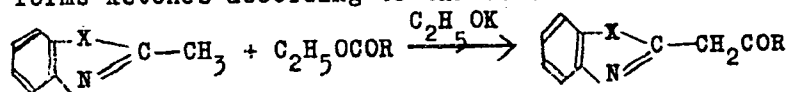
AUTHORS: Stepanov, F. N. , Davydova, S. L.

TITLE: Heterocyclic Methyl-Ketone Derivatives (Geterotsiklicheskiye proizvodnyye metilketonov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 4, pp. 891-896 (USSR)

ABSTRACT: In 1898 W. Wislicenus (Ref 1) carried out the condensation of oxalate with quinaldine and obtained the ether of the substituted pyrrolacemic acid. Later on this reaction was investigated more detailed by Borsche and his collaborators (Ref 2). They extended it also to other heterocycles (Ref 3). In such a condensation the diethyl oxalate is one of the most active acylating ethers. The authors found it interesting to get to know condensations with less active compounds, e.g. with ethyl benzoate and other ethers. Under the action of potassium ethylate the ethyl benzoate enters reaction with 2 methyl homologues of different heterocycles and forms ketones according to the scheme

Card 1/3



79-28-4-9/60

Heterocyclic Methyl-Ketone Derivatives

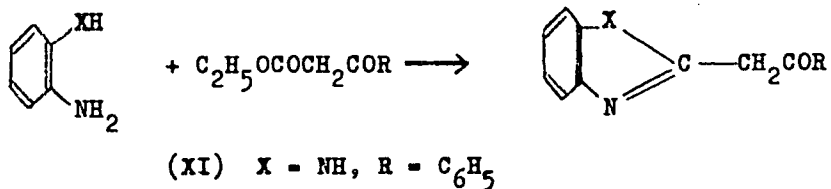
- (I) X = S, R=C₆H₅; (II) X = O, R =C₆H₅; (III) X = Se, R=C₆H₅;
(IV) X = CH=CH, R=C₆H₅; (V) X = NCH₃, R=C₆H₅; (VI) X=S,
R = CH₃; (VII) X = S, R=n-CH₃OC₆H₄; (VIII) X = S, R = n-ClC₆H₄;
(IX) X = S, R = n-C₂H₅OCOC₆H₄

2-methyl benzimidazole which under given conditions does not react at all, forms an exception. The yield of ketones fluctuates between 5 and 28 %. One of the ketones obtained by the authors *o*-benzoyl-2-methyl-benzthiazole (I) was described already earlier by Rogers and Sexton (Ref 5) who had obtained it by another method. (In the mentioned paper the boiling point was erroneously fixed at 150° instead of the correct boiling point at 110 - 111°). The para-substituted ethyl benzoates behaved much more active in the reaction with 2-methyl-benzothiazole. The same heterocyclic ketones with the exception of (IV) may be obtained also by another method, by means of the condensation of *o*-substituted anilines with acyl or aryl acetate according to the scheme

Card 2/3

79-28-4-9/60

Heterocyclic Methyl-Ketone Derivatives



The synthesized heterocyclic ketones have an active methylene group between the heterocycle and the carbonyl. There are 1 table and 7 references, 2 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley imeni K. Ye. Voroshilova)
(Scientific Research Institute for Organic Semi-Products and Dyes imeni K. Ye. Voroshilov)

SUBMITTED: March 27, 1957

Card 3/3

5 (3)

AUTHORS: Nazarov, I. N., Prostakov, N. S., SOV/79-29-7-40/83
 Mikheyeva, N. N., Davydova, S. L.

TITLE: Synthetic Anodyne Compounds. γ -Piperidones, γ -Piperidols
 and Their Ethers (Sinteticheskiye obezbolivayushchiye
 veshchestva. γ -Piperidony, γ -piperidoly i ikh efiry)

PERIODICAL: *Zhurnal obshchey khimii*, 1959, Vol 29, Nr 7, pp 2285-2292 (USSR)

ABSTRACT: The authors continued their investigations on the synthesis of
 γ -piperidols and their ethers, the analogs of promedol and
 isopromedol (Ref 1), and obtained a number of new γ -piperidones
 by alkylation or acylation of the 2,5-dimethyl-4-piperidone
 (Refs 2, 3). The 1- β -phenyl ethyl-(I), 1- γ -phenyl allyl-(II),
 1- β -p-nitro phenyl ethyl-(III), 1-phenyl carbo-methoxy-methyl-
 (IV), 1-(3',4',5'-trimethoxy benzoyl)-(VI), 1-nicotinoyl-(VII),
 1-furfuroyl-(VIII), 1- β -diethyl-amino propionyl-(IX) and
 1-carbo-benzoxy- 2,5-dimethyl-4-piperidone (X) were synthesized.
 Compound (V) was obtained by the reduction of the nitro group
 of 1-p-nitro benzoyl-2,5-dimethyl-piperidone (Ref 3). In the
 case of hydrogenolysis of (X) the initial-2,5-dimethyl-4-
 piperidone is formed. Synthesis of the γ -piperidols was
 brought about by reaction of the corresponding piperidones

Card 1/2

Synthetic Anodyne Compounds. γ -Piperidones,
 γ -Piperidols and Their Ethers

SOV/79-29-7-40/83

with organolithium compounds or also by substitution of hydrogen of the secondary amino group of the 2,5-dimethyl-4-phenyl-4-piperidol (Ref 4) by the corresponding radicals. The following compounds are obtained: The piperidols (XI), (XII), (XIII), (XIV), (XV). In the case of ether formation of piperidols by means of acid chlorides the ethers (XVI), (XVIII), (XIX), (XX), (XVII) the α -, β - and γ -isomers of 1,2,5-trimethyl-4-phenyl-4-piperidol (I), (XXI) and (XXII) were obtained. For the pharmacological test the hydrochlorides of the ethers of some tertiary and secondary γ -piperidols were prepared (more exact information in the experimental part). There are 4 Soviet references.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow
Institute for Fine Chemical Technology)

SUBMITTED: June 23, 1958

Card 2/2

DAVY DOVA, S. L.

PLAZE I BOOK EXPLOITATION SOV/4350
Soveshaniye po khimii, tekhnologii i primeneniyu proizvodnykh
piridina i khinolina. Msk., 1957

Entsilya, tekhnologiya i primeneniye proizvodnykh piridina i
khinolina; materialy soveshaniya (Khimiya, tekhnologiya
i prilozheniya khimicheskoy nauki i tekhnologii) i
sbornik nauchnykh rabot po khimii i tekhnologii
SNR, 1960. 299 p. Errata slip inserted. 1,000 copies
printed.

Sponsoring Agencies: *Kademya nauk Latvyskoy SSR*. Institut
khimii; *Vsesoyuznoye khimicheskoye obshchestvo*.

Ed.: S. Bakhurov; Tech. Ed.: A. Kiyvina; Editorial
Board: *Ku. A. Bakhurov*, Candidate of Chemistry, E. V.
Mendeleev, Doctor of Chemistry (USSR, Ed.), L. P. Zilubskiy,
Doctor of Chemistry, and N. N. Kargin.

PURPOSE: This book is intended for organic chemists and
chemical engineers.

COVER: The collection contains 33 articles on methods
of synthesizing or producing pyridine, quinoline, and
the 1-substituted derivatives from natural sources. No personalities
are mentioned. Figures, tables, and references accompany
the articles.

Рефератор: Л. А. Давыдова, канд. хим. наук (Москва)
Институт химической физики, ул. Академика Д. И. Менделеева
(Москва Институт химической физики, ул. Д. И.
Менделеева). Some Reactions of 3-Hydroxy-1,2,3,4,6-
Tetrahydroquinolines 229

Пилула, G. T. (Chernovitskiy gosudarstvennyy universitet
(Chernovitskiy State University)) The Interaction of N-aryl-
quinoline Quaternary Salts With Diazo Compounds 237

Val'dson, K. S., I. I. Izrael'skiy, and S. L. Davydova
All-Union Scientific Research Institute for Synthetic
Organic and Organometallic Chemistry of the Chemical Industry, USSR)
Containing Stereogenic Compounds 243

IV. THE USE OF DERIVATIVES OF THE QUINOLINE SERIES
IN ANALYTICAL CHEMISTRY

Zinovskaya, Ye. S. (Kostromskoy sel'skokhozyaystvennyy
Institut (Kostromskiy Agricultural Institute)) The Use of
8-Hydroxyquinoline in Chemical Analysis 253

Danovskiy, Yu. A.; A. P. Ievl'in, Sh. and V. I. Kuznetsov
(Central Institute of the Academy of Sciences Latvyskoy
SSR) 8-Hydroxyquinoline (Thiochrome) as an Analytical
Reagent 271

Mikhailov, G. I. (All-Union Scientific Research Institute
for Chemical Reagents) Studies in the Synthesis of 1,10-
Phenanthroline 283

Babko, A. K., and M. M. Ternavskiy (Ryevskiy gosudarstvennyy
universitet imeni T. G. Shevchenko) Study of Complex Formation
in the System: Metal Ion - Rhodanide (Iodide) - Organic
Base 289

KOLESNIKOV, G.S.; DAVYDOVA, S.L.; SHMAL'TS, A.M.; SHALINA, N.A.

Polyesters of antimonous and chloroantimonous acids. Izv.AN
SSSR.Otd.khim.nauk no.2:368-373 F '63. (MIRA 16:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Antimonic acids)

DAVYDOVA, S.L.; PLATE, N.A.; YAMPOL'SKAYA, M.A.; KARGIN, V.A.

Chemical modification of chlorinated polyolefins by incorporation
of aromatic groups. Vysokom. soed. 7 no.11:1946-1949 N '65.
(MIRA 19:1)

1. Institut neftekhimicheskogo sinteza AN SSSR. Submitted December
25, 1964.

DAVYDOVA, S. L.

"An Investigation of Heterocyclic Derivatives of Acetophenone." Cand Chem Sci,
Moscow Inst of Fine Chemical Technology imeni M. V. Lomonosov, 13 Dec 54. (VI, 9 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

KOLESNIKOV, G.S.; DAVYDOVA, S.L.; YERMOLAYEVA, T.I.

Carbochain polymers and copolymers. Part 17: Polymerization
of diallyl derivatives of silicon and germanium. Vysokom.
soed. 1 no.10:1493-1495 0 '59. (MIRA 13:3)

1. Institut elementoorganicheskikh soedineniy AN SSSR.
(Silicon compounds) (Germanium compounds)
(Polymers)

VUL'FSON, N. S.; DAVIDOVA, S. L.; LUKASHINA, L. I.

Investigation in the series of derivatives of acetonitrile. Report
No. 2: 2-cyanomethylquinoralone-3 and its derivatives. Org. polu-
prod. i kras. no. 1: 231-236. '59. (MIRA 14:10)
(Acetonitrile)

5(3)

AUTHORS:

Kolesnikov, G. S., Davydova, S. L.

SOV/79-29-6-58/72

TITLE:

Carbochainpolymers and Copolymers (Karbonsepnnyye polimery i sopolimery). XIII. Synthesis and Polymerization of Some Unsaturated Compounds, Which Contain Elements of the Group IV (XIII. Sintez i polimerizatsiya nekotorykh nenasyshchennykh soyedineniy, soderzhashchikh elementy IV gruppy)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 2042-2045 (USSR)

ABSTRACT:

The aim of this work was the synthesis and polymerization of elemental organic compounds, which contain in their composition Sn, Ge, Si, i.e. derivatives of vinyl and styrene of the type $R_3MCH=CH_2$ and $R_3MC_6H_4CH=CH_2$. The triethyl-vinyl-silane was synthesized by dehydro-chlorination of triethyl- β -chloro-ethyl silane, by Ushakov and Itenberg (Ref 1) and closer analyzed by Kanazashi (Ref 2). The authors synthesized the trimethyl-vinyl-silane by the reaction of vinyl-magnesium-bromide with trimethyl-chloro-silane, the triethyl-vinyl-stannane, according to D. Seyferth and F. G. A. Stone (Ref 3), by the reaction of the vinyl-magnesium-bromide with triethyl-chloro-stannane, and for the first time, the triethyl-vinyl-germane by the reaction

Card 1/3

Carbochainpolymers and Copolymers. XIII. Synthesis and SOV/79-29-6-58/72
Polymerization of Some Unsaturated Compounds, Which Contain Elements of the
Group IV

of the triethyl-bromo-germane with vinyl-magnesium-bromide. Trichloro-vinyl-germane was also synthesized according to A. D. Petrov and his associates (Ref 6), but tribromo-ethyl-germane was used as starting material. By the reaction of 4-triethyl stannyl-phenyl-magnesium-bromide with acetaldehyde according to references 7 and 8 the 4-triethyl-stannyl-phenyl-carbinol was obtained by the reaction of 4-triethyl-germanyl-phenyl-magnesium-bromide with acetaldehyde the 4-triethyl-germanyl-phenyl-methyl-carbinol was obtained and by the reaction of ethylene-oxide with triethyl-germanyl-magnesium-bromide the β -(4-triethyl germanyl phenyl)-ethyl alcohol was obtained. Inasmuch as dehydration of alcohol failed, the method of M. S. Kharasch(Ref 9) for the synthesis of substituted styrenes was used; by the reaction of 4-triethyl-stannyl-phenyl-magnesium with vinyl-bromide in the presence of cobalt salt the 4-triethyl-stannyl styrene resulted. In this way the triethyl-germanyl-styrene and the 4-trimethyl-silyl-styrene were obtained. The experiments to obtain polymers from synthesized unsaturated compounds had only very small yields as a result. Of the

Card 2/3

"APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000309910001-8

DAVIDOVA, S. L., KLIMENTOVA, M. V. and KOLESNIKOV, G. S. (USSR)

Polimery soderzhashchie germanii
Germanium containing polymers
IUPAC S I:156-9

report presented at the Intl. Symposium on Macromolecular Chemistry, Moscow,
14-18 June 60

APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000309910001-8"

15.8114 2109,220a,1581

84515
S/190/60/002/004/016/020
B004/B056

AUTHORS: Kolesnikov, G. S., Davydova, S. L., Klimentova, N. V.

TITLE: Carbochain Polymers and Copolymers. XXII. Synthesis, Polymerization, and Copolymerization of Methacrylyltriethyl Germanium ¹

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 4, X
pp. 563-566

TEXT: It was the aim of the authors to synthesize methacryl derivatives of germanium and to produce their polymers. In the present paper, a report is given on the results obtained by the hitherto unknown methacrylyltriethyl germanium (MATEG). This compound was synthesized according to the scheme $(C_2H_5)_3GeBr + CH_2=C(CH_3)COOK$

$\xrightarrow{CH_3OH} CH_2=C(CH_3)COOGe(C_2H_5)_3$. The infrared spectrum of this compound

and, for comparison, the infrared spectrum of methylmethacrylate are

Card 1/2

Carbochain Polymers and Copolymers. XXII.
Synthesis, Polymerization, and Copolymerization
of Methacrylyltriethyl Germanium

84515
S/190/60/002/004/016/020
B004/B056

shown in Fig. 1. In the presence of benzoylperoxide or azoisobutyric acid dinitrile MATEG polymerized to form transparent products. Further, also copolymerization with methylmethacrylate and styrene was attained. Because of the low activity of MATEG, the copolymers contained considerably less MATEG than the initial mixture with methylmethacrylate (1 : 194; 1 : 239 instead of 1 : 4; 1 : 10; see Table). The thermal properties of the polymer and its copolymers are represented in Fig. 2. The polymer of MATEG softens at 180 - 185°C, its copolymer with methylmethacrylate at a lower temperature, and the copolymer with styrene at about 145°C. The authors thank G. L. Slonimskiy for the thermomechanical examination, N. A. Chumayevskiy for the infrared spectra. There are 2 figures, 1 table, and 5 references: 2 Soviet, 1 US, 1 British, and 1 German. X

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR
(Institute of Elemental-organic Compounds AS USSR)

SUBMITTED: January 15, 1960

Card 2/2

84516

S/190/60/002/004/017/020
B004/B056

15.8114 2109,22 09,156)

AUTHORS: Kolesnikov, G. S., Davydova, S. L., Yermolayeva, T. I.,
Shilova, N. D., Bykhovskaya, M. B.

TITLE: Carbochain Polymers and Copolymers. XXIII. The Copolymerization of Diallyl-derivatives of Germanium, Tin, and Silicon With Styrene and Methylmethacrylate in the Presence of Benzoylperoxide

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 4, pp. 567-571

TEXT: It was the aim of the present paper to investigate the influence exerted by the content in diallyldimethylgermanium, diallyldiethylstannane, diallyldiethylsilane in the initial mixtures with respect to the composition of the polymers with styrene and methylmethacrylate. Copolymerization took place at 60°C in gasoline. The reaction lasted 8 h, concentration of the benzoylperoxide was 2% by weight, referred to the sum of the monomers. The copolymers with methylmethacrylate were found

Card 1/3

Carbochain Polymers and Copolymers. XXIII.
The Copolymerization of Diallyl-derivatives
of Germanium, Tin, and Silicon With Styrene
and Methylmethacrylate in the Presence of
Benzoylperoxide

84516
S/190/60/002/004/017/020
B004/B056

to be insoluble in the usual solvents. The compounds obtained were analyzed (Tables 1,2), and their thermomechanical properties were investigated (Figs. 1,2). In the copolymers with styrene, also the viscosity in benzene and the molecular weight was determined. An increasing content in elemental organic monomers in the initial mixture resulted in a decrease of the molecular weight of the copolymers. This is explained by the low activity of the elemental organic compounds. The copolymers with styrene had a lower softening temperature than polystyrene. The copolymers with methylmethacrylate showed no steric structure in the course of the thermomechanical investigation. That they are nevertheless insoluble, is explained by the very weak cross linking, which produces no effect upon the thermomechanical properties. The authors thank S. R. Rafikoy and G. L. Slonimskiy for determining the molecular weight and the thermomechanical properties. They mention papers by V. V. Korshak et al. (Refs. 1-3) and A. Ye. Borisov (Ref. 4). There are 2 figures,

Card 2/3

Carbochain Polymers and Copolymers. XXIII.
The Copolymerization of Diallyl-derivatives
of Germanium, Tin, and Silicon With Styrene
and Methylmethacrylate in the Presence of
Benzoylperoxide

84516
S/190/60/002/004/017/020
B004/B056

2 tables, and 4 Soviet references.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy AN SSSR
(Institute of Elemental Organic Compounds of the AS USSR) X

SUBMITTED: January 15, 1960

Card 3/3

S/074/60/029/012/004/004
B013/B078

AUTHORS: Kolesnikov, G. S., Davydova, S. L.

TITLE: Polymerization of Non-conjugate Dienes

PERIODICAL: Uspekhi. khimii, 1960, Vol. 29, No. 12, pp. 1474 - 1486

TEXT: In the present review the authors report from the field of research of cyclic polymerization. The assumption about the closing of rings during polymerization of compounds with isolated double bonds was first put forth by Simpson (Ref.1). Further confirmation of an "intramolecular cross linking" has been offered in Refs.2-4. In following years Butler and collaborators (Refs.5-13) found that polydiallyl ester of dicarboxylic acids are representatives of a large number of polymers obtained from compounds with two isolated double bonds. They show an anomalous solubility in organic solvents but no substantial non-saturation. Most of these polymers are converted by increased temperatures and pressure into transparent synthetic materials without, however, losing their solubility. These observations contradicted the common statement that linear polymers obtained from monomers with a double bond are of relatively good

Card 1/3

Polymerization of Non-conjugate Dienes

S/074/60/029/012/004/004
B013/B078

solubility, while those obtained by monomers with two or more double bonds show only a negligible solubility or none at all. By ascertaining numerous factors which influence polymerization Butler and Angelo (Ref.11) succeeded in establishing optimal conditions for polymerization. The mechanism suggested by them encompasses the formation of the radical from monomers and an alternate intramolecular and intermolecular transmission of the chain, resulting in a linear saturation of a chain consisting of alternating rings and methylene groups. The scheme proposed by Butler allows the formation of rings with any number of atoms. The formation of five- and six-link rings is, however, preferred. To illustrate the strong tendency of diene-1,6 as compared to monocolefins, toward polymerization, Butler suggested a scheme of intermolecular electron interaction between the non-conjugated double bonds in the molecule of the monomer. The structure of the resulting linear "cyclopolymers" was proved by Butler and his collaborators (Ref.13) for the decomposition products of polydiallyl ammonium bromide and polydiallyl dimethyl ammonium bromide. The polymerization mechanism suggested by Butler has been used by many researchers (Refs.16-54) to explain polymerization processes of a large number of other monomers. Here all familiar methods of initiation and

Card 2/3

Polymerization of Non-conjugate Dienes

S/074/60/029/012/004/004
B013/B078

catalysis giving rise to the formation of rings with five and more atoms in the polymeric chain were used. The terminology created by Butler and his co-workers has also been taken over by other authors and the technical literature now uses such words as "cyclopolymerization", "cyclopolymers", "cyclocopolymers" and even "cyclocatalysts" can now be found. The results of studies on cyclic polymerization point to the intense interest displayed by researchers in this new field of the chemistry of high-polymer compounds. All indications are that it will be possible in this way to create polymer compounds of an unknown structure in which linear and cyclic fragments alternate. Among them there will certainly be substances which will be of highly practical significance. Mentioned are: S. G. Matsoyan, M. G. Avetyan, I. A. Arbuzova, Ye. N. Rostovskiy, and V. N. Yefremova. There are 54 references: 17 Soviet. ✓

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR
(Institute of Elemental-organic Compounds of the AS USSR)

Card 3/3

DHVYUOVH, S.L.

SNV/6982

International symposium on macromolecular chemistry, Moscow, 1960.

Mezhdurodnyy simpozium po makromolekulyarnoy khimii SSSR, Moskva, 11-18 Iyunya 1960 g.; doklady i referaty. Sbornik 1. (International Symposium on Macromolecular Chemistry held in Moscow, June 11-18, 1960; Papers and Summaries, Section 1.) [Moscow, 1st-vo AN SSSR, 1960] 146 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Techn. Ed.: T. V. Polyakova.

PMISS: This collection of articles is intended for chemists and researchers interested in macromolecular chemistry.

CONTENTS: This is Section 1 of a multi-volume work containing scientific papers on macromolecular chemistry in Moscow. The material includes data on the synthesis and properties of polymers, and on the processes of polymerization, copolymerization, polycondensation, and polyprecipitation. Each text is presented in full or summarized in French, English, and Russian. There are 47 papers, 28 of which were presented by Soviet, Russian, Hungarian, and Czechoslovakian scientists. No personal files are mentioned. References accompany individual articles.

Tiarylov, Ya. I., B. A. Doljoplokh, T. G. Zhuravskaya, R. K. Kozlovskaya, and I. B. Karamalova (USSR). The Synthesis of Cis- and Trans-Diene Polymers on Oxide Catalysts and a Study of Their Structure and Properties 13

Belil, I. Ya., G. V. Kopylov, Ya. P. Militsynskaya (USSR). Synthesis and Polymerization of Esterified Polyacrylates 47

Bobkova, M. J., M. A. Stepanchuk, and V. Zhornitskiy (Czechoslovakia). The Structure of Hardened Unsaturation Polymers 28

Al'terman, Ya. Mo., A. Ya. Kulikova, and N. K. Topolnik (USSR). New Method of Preparation of Polyesters and Their Oligomers 64

Kobzarev, M., and I. Sternikova (Czechoslovakia). Analysis of Cross-Linked Polymers 72

Vaidhardt, A. I., T. P. Kopylova, M. G. Korkorak, I. V. Kabanova, and G. A. Gaidarovskiy (USSR). On the Synthesis and Properties of Crystalline Polymers of the Type of Poly-p-Phlylene and Polyphenylmethacryl 90

Malozem, S. G. (USSR). Cyclic Polymerization and Copolymerization of Divingloxyethers 101

Shchegolev, A. I., P. I. Vashilov, A. V. Topolnikov, and B. A. Kozlovskiy (USSR). Synthesis of Crystalline Polyaryloxyacetamides 118

Antonova, L. A., and Ye. I. Zyzanskaya (USSR). Polymerization of Polyfunctional Compounds 125

Solomon, O. P., M. Disonole, K. Ashmuh, and M. Tschann (Austria). Polymerization of Vinylacetone in the Presence of Butyllithium and Titanium Chloride Type Catalysts 131

Barbule, V. V., S. L. Selezin, and V. P. Alkhorova (USSR). On the Preparing of the New Types of Linear Polymers by the Reaction of Polycondensation 141

Krasitsin, N. S., A. V. Topolnikov, and S. G. Durnevskiy (USSR). The Synthesis of Epoxidation Polymers on a Complex Catalyst (C₂H₅)₂AlVOCl₂ 152

Kolomoyn, O. S., S. L. Davydova, and E. V. Elisevskaya (USSR). Germanium-Containing Polymers 156

Sokolovskiy, M. P., S. P. Kabanov, V. N. Kotelnik, D. A. Koshida, E. I. Kuznetsov, N. V. Lyzva, E. V. Borisova, and V. V. Borisenko (USSR). Dynamic Polymers 160

Kolun, K. A., S. M. Miskina, and V. S. Potvinakly (USSR). The Effect of Organic Structure on the Polymerization Activity of the Mesotetravalent Organometallic Compounds 167

Volynskiy, M. J. (USSR). Cooperative Processes in the Polycondensation of Alkynes 202

Card 6/9

49

BURKSER, E.S. [Burkser, E.S.]; ALEKSEYEVA, Ye.N. [Alekseieva, K.M.];
VETSHTEYN, V.Ye.; GOL'DENFEL'D, I.V.; DAVYDYUK, L.A. [Davydyuk, L.O.];
DEMIDENKO, S.G. [Demydenko, S.H.]; YELISEYEVA, G.D. [Ieliseieva, H.D.];
LECHEKHLEB, V.R. [Lechekhlib, V.R.]; SHCHERBAK, M.P.

Accurate determination of the absolute age of rocks by the lead
method. Geol.zhur. 21 no.5:48-57 '61. (MIRA 14:10)

1. Institut geologicheskikh nauk AN USSR.
(Geological time) (Mineralogy)

DAVYDOVSKIY, Yu.S. (Baku)

Overgrowth of Balanus on water supply stations in the Caspian Sea.
Vod. i san. tekhn. no.11:30-32 N '61. (MIRA 15:6)
(Caspian Sea—Cirripedia) (Water pipes)

89913

S/062/61/000/002/010/012
B115/B207

15.8114

AUTHORS: Zakharkin, L. I., Kolesnikov, G. S., Davydova, S. L.,
Gavrilenko, V. V., and Kamyshova, A. A.

TITLE: Dialkyl aluminum derivatives of saturated and unsaturated
acids

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh
nauk, no. 2, 1961, 364-365

TEXT: The authors aimed at obtaining dialkyl aluminum methacrylates and
acrylates and studying their properties. The compounds of the
(RCOO)_xAlR'_{3-x} type have not yet been described in publications. First, ✓
the authors tried to obtain salts of dialkyl aluminum and of fatty
acids by interaction of the potassium salts of these acids with
dialkyl aluminum chlorides, but without success probably due to complex
formation of organoaluminum compounds with KCl. Subsequently, the
authors applied the interaction of trialkyl aluminum with free
saturated and unsaturated acids by the following scheme:

Card 1/4

89913

S/062/61/000/002/010/012
B115/B207

Dialkyl aluminum derivatives of ...

$\text{RCOOH} + \text{AlR}'_3 \longrightarrow \text{RCOOAlR}'_2 + \text{R}'\text{H}$. The reaction proceeded in hexane or benzene under intensive stirring. The separation of saturated hydrocarbons in quantities close to calculations was observed in the reaction process. By this method, the following substances were obtained from dialkyl aluminum and saturated acids: diisobutyl aluminum acetate, diisobutyl aluminum propionate; from dialkyl aluminum and unsaturated acids: diethyl aluminum methacrylate, diethyl aluminum acrylate, and diisobutyl aluminum methacrylate. The substances obtained are transparent, colorless, easily distillable and viscous oils which fume in the air and inflame sometimes. The table shows their constants. Salts from dialkyl aluminum and unsaturated acids polymerize both thermally and in the presence of initiators such as dinitrile of azoisobutyric acid. They are viscous, transparent polymers which are nearly insoluble in organic solvents, and swell in some polar media such as amyl acetate or dimethyl formamide. Salts from dialkyl aluminum and unsaturated acids copolymerize well with methyl methacrylate and styrene in all ratios (1 : 0.5, 1 : 1, 1 : 2, 1 : 4, etc.), and are solid, transparent, vitreous polymers practically insoluble in organic solvents.

Card 2/4

89913

S/062/61/000/002/010/012
B115/B207

Dialkyl aluminum derivatives of ...

Homeopolymers decompose in the air, while copolymers do not change in the air (if they are not kept there for too long). All reactions with organoaluminum compounds were conducted in pure nitrogen. There are 1 table and 8 references: 5 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds of the Academy of Sciences USSR)

SUBMITTED: July 4, 1960

Card 3/4

89913

S/062/61/000/002/010/012
B115/B207

Dialkyl aluminum derivatives of ...

Таблица

Физические свойства солей дивалкилалюминия

R	R'	Т. кип., °C (р мм рт. ст.)	Выход, %	Найдено Al, %	Вычислено Al, %
CH ₃ —	<i>i</i> -C ₄ H ₉	145—146(3)	85	13,52 13,15	13,47
C ₂ H ₅ —	<i>i</i> -C ₄ H ₉	148—149(2)	85	12,11 12,10	12,41
CH ₃ —C—CH ₃	<i>i</i> -C ₄ H ₉	156—157(2)	75	•	•
CH ₂ =C—CH ₃	C ₂ H ₅	126—127(3)	59	15,71 15,75	15,88
CH ₂ =CH—	C ₂ H ₅	131—133(6)	51	17,40	17,30

• Найдено: С 63,75; Н 10,57%. Вычислено: С 63,71; Н 10,18%.

Legend to the table: 1) Boiling point, °C (mm Hg), 2) yield, 3) found, 4) calculated

Card 4/4

LEYTES, L.A.; YEGOROV, Yu.P.; KOLESNIKOV, G.S.; DAVYDOVA, S.L.

Study of vibrational spectra of methacrylic acid derivatives containing the elements of the IVth group. Izv.AN SSSR.Otd.khim.nauk no.11:1976-1981 N '61. (MIRA 14:11)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR i Institut elementoorganicheskikh soyedineniy AN SSSR.
(Methacrylic acid--Spectra)

10.1730

41185

S/198/62/008/005/004/009
D234/D308AUTHOR: Davydson, V. Ye.

TITLE: Plane plate in a diverging two-dimensional stream of an incompressible liquid

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Instytut mekhaniky. Prikladna mekhanika, v. 8, no. 5, '1962, 541-545

TEXT: The stream is assumed to be produced by a point source situated at $(0, f)$ in the coordinate system (x, y) . The plate is situated along the x axis. The plate is replaced by a vortex layer and the flow past the plate formulated by superposing a disturbing stream and the point source stream. In the boundary condition on the plate the square of f is neglected, and the resulting equation

$$\int_{z_A}^{\xi_B} \frac{\chi(\xi) d\xi}{x - \xi} = \frac{Qf}{x^2} \quad (2)$$

Card 1/3

S/198/62/008/005/004/009
D234/D308

Plane plate in a ...

is solved by Glauert's method (δ is the intensity of the vortex layer and Q that of the point source). The aerodynamic force acting on the plate is found to be

$$F = \frac{Q^2 \rho l}{2\pi l^2} \varphi(k) \quad (10)$$

where

$$\varphi(k) = \frac{k}{(k^2 - 1)^2} - \frac{k - \sqrt{k^2 - 1}}{[1 - (k - \sqrt{k^2 - 1})^2] \sqrt{(k^2 - 1)^3}}$$

k being the ratio of the coordinate of the middle of the plate and l where l is one half of the length of the plate [Abstracter's note: o not defined.]. The resultant moment with respect to the

Card 2/3

Plane plate in a ...

S/198/62/008/005/004/009
D234/D308

origin of coordinates is

$$M_0 = \frac{Q^2 \rho l}{2\pi l} \varphi_1(k) \quad (11)$$

where $\varphi_1(k) = \sqrt{(k+1)} \sqrt{(k^2-1)}$. The coefficient of the pressure center C_d is found from these expressions. Graphs of φ , φ_1 and C_d are given. There are 2 figures.

ASSOCIATION: Dnipropetrovs'ky derzhavnyy universytet (Dnipropetrovsk State University)

SUBMITTED: June 3, 1961

Card 3/3

KOLESHNIKOV, G.S.; DAVYDOVA, S.I.; YAMPOL'SKAYA, M.A.; KLIMENTOVA, N.V.

Interaction of mono- and dicarboxylic acids with trialkyl derivatives
of boron and aluminum. Izv. AN SSSR. Otd.khim.nauk no.5:841-844
My '62. (MIRA 15:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Boron organic compounds) (Aluminum organic compounds)
(Acids, Organic)

38893

158070

S/190/62/004/007/009/009
B119/B180

AUTHORS: Kolesnikov, G. S., Davydova, S. L., Klimentova, N. V.

TITLE: Carbochain polymers and copolymers. XL. Polymerization and copolymerization of methacrylic and acrylic derivatives containing germanium

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 7, 1962, 1098-1102

TEXT: Copolymerizing methacrylyl triethyl germanium with styrene at 60°C the authors found the relative activities of the two components to be 0.93 ± 0.08 and 1.05 ± 0.02 respectively. The following new compounds were synthesized: $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOGe}(\text{C}_4\text{H}_9)_3$ (1) (b.p. 130-132°C at 4 mm Hg; d_{20}^{20} 1.0166; n_D 1.4602 at 20°C); $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOGe}(\text{C}_6\text{H}_5)_3$ (2) (m.p. 180°C); $\text{CH}_2=\text{C}(\text{CH}_3)\text{COOGe}(\text{C}_6\text{H}_{11})_3$ (3) (m.p. 82-84°C); $\text{CH}_2=\text{CHCOOGe}(\text{C}_2\text{H}_5)_3$ (4) (b.p. 88-90°C at 12 mm Hg; d_{20}^{20} 1.1530; n_D 1.4582 at 20°C); $\text{CH}_2=\text{CHCOOGe}(\text{C}_4\text{H}_9)_3$ (5) (b.p. 131°C at 4 mm Hg;

Card 1/2

Carbochain polymers and copolymers...

S/190/62/004/007/009/009
B119/B180

d_{20}^{20} 1.0131; n_D 1.4609 at 22°C); $\text{CH}_2=\text{CHCOOGe}(\text{C}_6\text{H}_5)_3$ (6) (m.p. 178-178.5°C).

Compounds 1, 3, 4, and 5 were polymerized separately (initiator: azoisobutyric acid dinitrile), and compounds 1, 4, and 5 were copolymerized (20 mole% each in the reaction mixture) with styrene or methyl methacrylate. Polymer yields were 40-60%, and copolymers 52-60%. $[\eta]$ of the polymers lies between 0.30 and 1.20 (solvent: pyridine, dimethyl formamide), that of the copolymers between 0.35 and 1.45 (solvent: dimethyl formamide). Maximum Ge content in the copolymers is 7.58% (in the case of 5, with methyl methacrylate). 1 polymerizes in emulsion in the presence of potassium persulfate. The thermomechanical properties of some of the polymers were determined. There are 1 figure and 4 tables. The most important English-language reference is: F. R. Mayo, F. M. Lewis, J. Amer. Chem. Soc., 66, 1594, 1944.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy AN SSSR.
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: May 5, 1961

Card 2/2

KOLESNIKOV, G.S.; DAVIDOVA, S.L.; KLIMENTOVA, N.V.

Carbochain polymers and copolymers. Part 40: Polymerization and copolymerization of methacrylic and acrylic derivatives containing germanium. Vysokom.soed. 4 no.7:1098-1102 J1 '62. (MIRA 15:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Germanium organic compounds)
(Methacrylic acid) (Acrylic acid)

SESSION NR: AT5002118

S/0000/64/000/000/0113/0117

33
BH

AUTHOR: Kolesnikov, G. S.; Davydova, S. L.; Klimentova, N. V.

TITLE: Synthesis of methacrylates and acrylates containing elements of groups III and IV of the periodic table

SOURCE: AN SSSR. Institut neftekhimicheskogo sinteza. Sintez i svoystva monomerov (The synthesis and properties of monomers). Moscow, Izd-vo Nauka, 1964, 113-117

TOPIC TAGS: methacrylate, acrylate, boron methacrylate, aluminum methacrylate, silicon methacrylate, tin methacrylate, boron acrylate, aluminum acrylate, silicon acrylate, germanium methacrylate, germanium acrylate, tin acrylate

ABSTRACT: Methacrylates and acrylates of trialkyl-substituted boron, aluminum, silicon, germanium, and tin were synthesized and the properties of the derivatives were studied. Derivatives of dialkyl aluminum and unsaturated acids polymerize and copolymerize thermally as well as in the presence of initiators, forming viscous, transparent polymers, very difficultly soluble in organic solvents (except dimethylformamide). Block thermal polymerization and copolymerization of dibutylboronmethacrylic anhydride yielded viscous liquids or waxy, solid polymers and copolymers (very difficultly soluble in organic solvents except dimethylformamide). Methacrylyltriethylgermanium polymerized and copolymer-

Card 1/2

L 41147-65

ACCESSION NR: AT5002118

1 2
11 es with methylmethacrylate and styrene in accordance with the radical mechanism. forming transparent, colorless, glassy polymers and copolymers. Orig. art. has: 5 tables and 6 formulas.

ASSOCIATION: None

SUBMITTED: 30Jul64

ENCL: 00

SUB CODE: OC, 60

NO REF SCV: 013

OTHER: 011

ACC NR: AP6000984

SOURCE CODE: UR/0286/65/000/022/0059/0059

INVENTOR: ^{44.55}Plate, N. A.; ^{44.55}Mal'tsev, V. V.; ^{44.55}Kolesnikov, G. S.; ^{44.55}Davydova, S. L. ₄₁₉

ORG: none

TITLE: Preparation of ⁷organotin and ⁷organogermanium polymers. Class 39, No. 176408 ₁₅

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 59

TOPIC TAGS: organotin compound, organogermanium compound, ^{44.55}polymer, catalytic polymerization, lithium compound

ABSTRACT: An Author Certificate has been issued for a preparative method for organotin or organogermanium polymers with enhanced heat resistance. The method involves polymerization of tin or germanium vinyl derivatives over alkyl lithium catalyst. [B0]

SUB CODE: 07/ SUBM DATE: 18Sep63/ ATD PRESS: 4158

Card ^{OC} 1/1

UDC: 678.745.7

DAVYDOVA, S.L.; PURINSON, Yu.A.; LAVRUKHIN, B.D.; PLATE, N.A.

Synthesis of optically active unsaturated silicon hydrocarbon with
an asymmetrical silicon atom. Izv. AN SSSR Ser. khim. no.2:387-389
'65. (MIRA 18:2)

1. Institut neftekhimicheskogo sinteza im. A.V. Topchiyeva AN SSSR.

KHMYROV, A.B., podpolkovnik meditsinskoy sluzhby; DAVYGORA, N.D.,
podpolkovnik meditsinskoy sluzhby

Organization of regimental medical station. Voenn.-med. zhur.
no. 1:13-19 Ja '60. (MIRA 14:2)
(MEDICINE, MILITARY)

DAVYDOVA, S.M., redaktor; KONDRAT'YEVA, M.A., tekhnicheskly redaktor.

[Equipment of overhead lines for transmission and contact systems]
Armatura vozduzhnykh liniy elektroperedach i kontaktnoi seti. Izd.
ofitsial'noe. Moskva, 1957. 187 p. (MIRA 10:11)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Electric lines--Overhead--Standards)

DAVYDOVA, S.M., red.; KONDRAT'YEVA, M.A., tekhn.red.

[Materials used in building installations for railroads and
and automobile roads; building and building materials] Materialy
primeniayemye pri stroitel'stve iskusstvennykh sooruzhenii na
zheleznnykh i avtomobil'nykh dorogakh; stroitel'stvo i stroimaterialy.
Izd.ofitsial'noe. Moskva, Pt.2. 1957. 289 p. (MIRA 11:1)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Roads--Standards) (Railroads--Standards)

Davydova, S.M., Kondrat'yeva, M.A.
DAVYDOVA, S.M., red.; KONDRAT'YEVA, M.A., tekhn.red.

[Storage batteries; batteries and auxiliary materials] Akkumulatory,
elementy i vspomogatel'nye materialy. Izd. ofitsial'noe. Moskva,
1957. 290 p. (MIRA 11:2)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Storage batteries--Standards)

DAVYDOVA, S.M.

DAVYDOVA, S.M., red.; KONDRAT'YEVA, M.A., tekhn.red.

[Electric machinery] Mashiny elektricheskie. Izd. ofitsial'noe.
Moskva, 1957. 293 p. (MIRA 11:4)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Electric machinery--Standards)

КОНДРАТ'ЯЕВА, М.А.
DAVYDOVA, S.M., red.; KONDRAT'YEVA, M.A., tekhn.red.

[Materials used in building installations for railroads and automobile roads; steel and steel parts] Materialy primeniayemye pri stroitel'stve iskusstvennykh sooruzhenii na zheleznykh i avtomobil'nykh dorogakh; stal' i stal'nye izdeliia. Moskva. Pt.1. 1957. 299 p. (MIRA 11:4)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Railroads--Standards) (Roads--Standards)
(Steel, Structural--Standards)

DAVYDOVA, S.M.
DAVYDOVA, S.M., red.; KONDRAT'YENVA, M.A., tekhn.red.

~~_____~~
[Equipment and attachments for wire communication] Oborudovanie i
prisposobleniia provodnoi svyazi. Izd.ofitsial'noe. Moskva, 1957.
379 p. (MIRA 11:2)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Telephone--Apparatus and supplies--Standards)
(Telegraph--Equipment and supplies--Standards)

DAVIDOVA, S.M., red.; KONDRAT'YEVA, M.A., tekhn.red.

[Binders, concretes, and aggregates] Viazmahchie materialy, /
betony i zapelniteli dlia betona. Izd. ofitsial'noe. Moskva.
1958. (MIRA 12:2)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Concrete--Standards) (Cement--Standards)

DAVIDOVA, S.M., red.; KONDRAT'YEVA, M.A., tekhn.red.

[Capacitors] Kondensatory. Izd.ofitsial'noe. Moskva, 1958.
222 p. (MIRA 12:2)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Electric capacitors)

DAVIDOVA, S.M., red.; MATVEYEVA, A.Ye., tekhn.red.

[Woodwork for apartment houses and public buildings] Stoliarnye izdeliia dlia zhilykh i grazhdanskikh zdani; izdanie ofitsial'noe. Moskva, 1959. 110 p. (MIRA 12:9)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov. (Woodwork--Standards)

14(2); 25(5)

PHASE I BOOK EXPLOITATION

SOV/3175

USSR. Gosudarstvennyy Komitet standartov

Pod'yemniki (Lifting Machinery) Official ed. Moscow. 1959. 35 p. Errata slip inserted. 10,000 copies printed.

Ed.: S.M. Davydova; Tech. Ed.: A.Ye. Matveyeva.

PURPOSE: This book is intended for technical personnel.

COVERAGE: This is a list of State Standards for elevators. Fields of application, basic parameters and dimensions, drawings, and general requirements are presented for each set of standards. Revisions are published periodically in the Informatsionnyy ukazatel' standartov (Information Index of Standards). No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

GOST 5746-58. Passenger Elevators. Basic Parameters and Dimensions 3

Card 1/2

Lifting Machinery

SOV/3175

GOST 8823-58. General-purpose Freight Elevators. Basic Parameters and Dimensions	18
GOST 8824-58. Small General-purpose Freight Elevators. Basic Parameters and Dimensions	23
GOST 8825-58. Small Freight Elevators for Stores. Basic Parameters and Dimensions	29
GOST 8822-58. Hospital Elevators. Basic Parameters and Dimensions	32

AVAILABLE: Library of Congress (TJ1372.R8)

Card 2/2

VK/gmp
3-21-60

DAVIDOVA, S.M., red.; MATVEYEVA, A.Ye., tekhn.red.

[Electric appliances] Elektricheskie apparaty. Izd.ofitsial'nos.
Moskva, 1959. 271 p. (MIRA 12:12)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Electric apparatus and appliances)

DAVIDOVA, S.M., red.; MATVEYEVA, A.Yé., tekhn. red.

[Storage batteries, cells, and auxiliary materials] Akkumulyatory,
elementy i vspomogatel'nye materialy. Izd.ofitsial'noe, Moskva,
1959. 291 p. (MIRA 14:10)

(Storage batteries—Standards)

DAVIDOVA, S.M., red.; MATVEYEVA, A.Ye., tekhn.red.

[Binders, concretes, and concrete aggregates] Viazhushchie
materialy, betony i zapolniteli dlia betona. Izd.ofitsial'noe.
Moskva, Gos.izd-vo standartov, 1960. 384 p.

(MIRA 14:1)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy komitet standartov.
(Concrete) (Binding materials)
(Aggregates (Building materials))

DAVYDOVA, S.M., red.; MATVEYEVA, A.Ye., tekhn. red.

[Electrical engineering materials; insulators] Elektro-
tekhnicheskie materialy; insulyatory. Izd.ofitsial'noe.
Moskva, Gos.izd-vo standartov. Pt.2. 1961. 153 p.

(MIRA 16:8)

(Electric insulators and insulation)

DAVYDOVA, S.M., red.; KASHIRIN, A.G., tekhn. red.

[Electrical engineering materials; electric insulating materials] Elektrotekhnicheskie materialy; elektroizolatsionnye materialy. Izd. ofitsial'noe. Moskva, Gos.izd-vo standartov. Pt.1. 1961. 164 p. (MIRA 16:8)
(Electric insulators and insulation)

DAVYDOVA, S.M., red.; KASHIRIN, A.G., tekhn. red.

[Binding materials, concretes, and concrete aggregates] Viazhu-
shchie materialy, betony i zapolniteli dlia betona. Izd. ofitsial'-
noe. Moskva, Gos. izd-vo standartov, 1961. 403 p. (MIRA 14:10)
(Binding materials--Standards) (Concrete--Standards)
(Aggregates (Building materials))--Standards