PAMFILOV, A.V.; KUZUB, V.S.; PALAMARCHUK, I.V.

Joint action of surface active substances on the electrocapillary curve. Dop.AN URSR no.6:813-816 '60. (MIRA 13:7)

1. Chernovetskiy gosudarstvennyy universitet. Predstavleno akademikom AN USSR Yu.K.Delimarskim [IU.K.Delimars'kym]. (Surface active agents) (Surface tension)

PALAMARCHUK, M.

"New methods of mechanisation of the harvesting and transportation of sugar beet in the USSR."

MECHANISACE ZEM DELSTVI, Praha, Czechoslovakia, Vol. 5, No. 20, October 1955.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

PALAMARCHUK,M.D.; USHAKOV,A.F.; KLYAVIR,I.Yu.; KITAYTSEVA,Z.P.

Bew means for the mechanical harvesting and hauling of sugar beets.
    (Combines (Agricultural machinery)) (Sugar beets--Transportation)
                                                    (MIRA 8:11)

PALAMARCHUK, M.M.

Beginning of the beet-sugar industry in western provinces of
the Ukrainian SSR. Sakh.prom.31 no.3:74-76 Mr '57.
                                        (MIRA 10:4)

          (Ukraine--Sugar industry)

P.../ A N' A F(H(. *.11, -1/.*

PALAMARCHUK, M.M.

Sugar industry of the western provinces of the Ukraine during the
period of capitalism. Sakh. prom. 31 no.10:13-16 0 '57. (MIRA 11:1)
(Ukraine--Sugar industry--History)

M. M.

PALAMARCHUK, N.M.

Distribution of the sugar industry in the western provinces of
the Ukraine. Sakh. prom. 31 no.12:3-5 D '57.   (MIRA 11:1)
                    (Ukraine--Sugar industry)

PALAMARCHUK, M.M.

Fundamental problems in the development of the Ukrainian sugar industry. Sakh. prom. 32 no.5:5-10 My '58.   (MIRA 11:6)

1.Institut ekonomiki AN SSSR.
              (Ukraine--Sugar industry)

PALAMARCHUK, M.M.

Story of the development of the sugar industry in the Lvov Economic
Region. Sakh.prom. 34 no.10:15-18 O '60.   (MIRA 13:10)

1. L'vovskiy torgovo-ekonomicheskiy institut.
        (Lvov Economic Region--Sugar industry)

BUKHALO S.M., doktor ekon. nauk, prof.; VOLOBOY, P.V., kand. ekon. nauk; KUGUKALO, I.A.[Kuhukalo, I.A.], kand. ekon. nauk; PALAMARCHUK, M.M., doktor ekon. nauk, prof.; SLYUSAR, V.D., kand. ekon. nauk; GLADYSHEV, I.S.[Hladyshev, I.S.], st. inzh.-ekonomist; TSYASHCHENKO, P.S., kand. ekon. nauk; PETRUNEVICH, F.G. [Petrunevych, IE.H.], st. inzh.-ekonomist; GRADOV, G.L.[Hradov, H.L.], kand. ekon. nauk; KHAZANET, S.M., red.

[The economic regions of the Ukrainian S.S.R.; a manual] Eko- nomichni raiony URSR; dovidnyk. Kyiv, Naukova dumka, 1965. 190 p.   (MIRA 18:5)

1. Sovet po izucheniyu produktivnykh sil Ukrainskoy RSR Gosudarstvennogo planovogo komiteta Ukr. RSR(for all except Khazanet).

LAVRISHCHEV, Aleksey Nikitich, doktor geogr. nauk, prof.;
        PALAMARCHUK, M.M., prof., retsenzent; SLAVIN, S.V.,
        prof., retsenzent; RYAZANTSEV, S.N., dots., retsenzent;
        KUGUSHEV, N.G., dots.,retsenzent; KISTANOV, V.V., kand.
        ekon. nauk, retsenzent; GLYAZER, L.S., red.; TARASOVA,
        T.K., mlad. red.; PONOMAREVA, A.A., tekhn. red.;
        GERASIMOVA, Ye.S., tekhn. red.

        [Economic geography of the U.S.S.R.; general part, the
        geography of industry, agriculture, and transportation]
        Ekonomicheskaia geografiia SSSR; obshchaia chast', geog-
        rafiia promyshlennosti, sel'skogo khoziaistva i trans-
        porta. Moskva, Izd-vo "Ekonomika," 1964. 558 p.
                                                (MIRA 17:3)

PALAMARCHUK, M.M.

"Agricultural zones of the Ukrainian S.S.R." by I.F.Mukomel'.
Reviewed by M.M.Palamarchuk. Izv. AN SSSR. Ser. geog. no.2:
139-142 Mr-Ap '62.   (MIRA 15:3)
        (Ukraine—Agricultural geography) (Mukomel', I.F.)

SHEVCHENKO, Anton Yefimovich; PALAMARCHUK, M.M., doktor ekon. nauk,
prof., otv. red.; KOROBKO, V.I., red.; MATVIICHUK, O.A., tekhn.
red.

[Industrial development and its role in creating the productive
forces of communism]Rozvytok promyslovosti ta ii rol' u stvoren-
ni produktyvnykh syl komunizmu. Kyiv, 1962. 37 p. (Tovarystvo
dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR.
Seriia 3, no.5)   (MIRA 15:12)
              (Russia—Industries)

USSR/General Problems. Metnodolo y. History. Scientific   A
              Institutions and Conferences. Instruction.
              Questions Concernin Biblio raphy and Scien-
              tific   umentati n.

Abs Jour   : Ref ur-   , No 4,   ,

Author   : M. M. _altmarchuk_
Inst   :
Title   : Sugar Industry in estern krainian   ions
              Durin the Capitalistic   riod

Orig ub   : Sakharnaya rom-st',   , No 10, 13-1

Abstract   : No abstract

Card 1/1

PALAMARCHUK, Maksim Martynovich, kand.ekonomichnykh nauk.; SIROTSINSKIY, K.Ye.,
[SIROTSINS'KYI, K.IE], prof. doktor ekonomichnykh nauk, red.;
MERZLIKIN, I.G., red.;

[Development of sugar beet growing and the sugar industry in the
Ukraine] Rozvytok buriakkosiiannia i tsukrovoi promyslovosti na Ukraini.
Kyiv, 1958. 39 . (Tovarystvo dlia poshyrennia politychnykh i naukovykh
znan' Ukrains'koi RSR. Ser. 2, no.7)   (MIRA 11:9)
             (Ukraine--Sugar industry)

ZADOROZHNYY, Vasiliy Kirillovich [Zadoroshnyi, V.]; PALAMARCHUK,
     Maksim Martynovich; DUBOVENKO, Ye. [Dubovenko, IE.], red.;
LYAMKIN, V., tekhn.red.

[Achievements in the economic development of the western
provinces of the Ukrainian S.S.R.] Uspikhy ekonomichnoho
rozvytku zakhidnykh oblastey Ukrains'koi RSR. Kyiv, Derzh.
vyd-vo polit.lit-ry URSR, 1960. 171 p.   (MIRA 13:5)
          (Ukraine, Western--Economic conditions)

PALAMARCHUK, Maksim Martynovich; IERSHIN, F.N., akademik, otv.
red.; BOYARKIN, V.K.; red.

[Sugar beet production in the Ukrainian S.S.R.] Svekle-
sakharnoe proizvodstvo Ukrainskoy SSR. Kiev, Naukova
dumka, 1964. 214 p.   (MIRA 18:3)

1. Akademiya nauk Ukr. SR (for Pershin).

L 16596-65   EPA(s)-2/EWT(m)/EPF(c)/EWP(j)/T   Po-4/Pr-4/Pt-10   ESD(c)   MLK/RM

ACCESSION NR: AT4048195   S/0000/64/000/000/0303/0306

AUTHOR: Palamarchuk, N. A.; Syavtsillo, S. V.; Turkel'taub, N. M.   *B-1*

TITLE: Admixture determination in monomeric silicoorganic compounds by the chromatographic method

SOURCE: Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po gazovoy khromatografii. 2d, Moscow, 1962. Gazovaya khromatografiya (Gas chromatography); trudy* konferentsil. Moscow, Izd-vo Nauka, 1964, 303-306

TOPIC TAGS: admixture determination, silicon semiconductor, silane chromatography, gas liquid chromatography, silicoorganic compound

ABSTRACT: The authors point out that the following undesirable admixtures are frequently encountered in the monomeric silicoorganic compounds used in the production of polymers or silicon semiconductors: in dimethyldichlorosilane - trimethylchlorosilane and methyl-trichlorosilane; in methyldichlorosilane - trichlorosilane, dimethylchlorosilane, silicon tetrachloride, etc. The most expedient method for their detection is gas chromatography, using especially sensitive detectors and effective adsorbents. Methods of stepwise chromatography are preferred in this case to developing chromatography. The installation consisted of a column, detector, batch meter and drying system. Two detector types were

Card 1/2

to Porter. The batch motor developed by A. G. [illegible] [illegible] poule with the sample, the ampoule being broken by an electromagnet without interrupting the flow of the carrier gas (hydrogen or helium). The solid carrier consisted of crushed "inzen" brick. The stationary phase material was thoroughly desiccated; it consisted of tricresylphosphate, dimethylphthalate, or other materials in various proportions to the solid carrier, optimum 10-15%. It was found that the sensitivity in determining admixtures in dimethyldichlorosilane by stepwise chromatography amounted to 0.02%. The relative accuracy was 5%. The corresponding figures for methyldichlorosilane and trichlorosilane tested by developing gas-liquid chromatography are 0.05% and 10%. "V. S. Lozovskaya, L. A. Nechayeva and A. A. Nogayeva also took part in the experimental work." Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: None

SUBMITTED: 16Jul64   ENCL: 00   SUB CODE: OC, GC

NO REF SOV: 004   OTHER: 000

Card   2/2

IVANOVA, N.T.; PALAMARCHUK, N.A.; SYAVTSILLO, S.V.

Gas chromatographic determination of impurities in methyl chloride.
Plast. massy no.4:65-67 '65.   (MIRA 18:6)

TURKEL'TAUB, N.M.; PALAMARCHUK, N.A.; SHEMYATENKOVA, V.T.; SYAVTSILLO, S.V.;
   Prinimali uchastiye: NECHAYEVA, L.A.; KHVOSHCHEVSKAYA, A.A.;
   BALABANOVA, Ye.N.

Chromatographic analysis of organosilicon compounds. Plast.massy
no.4:51-56 '61.   (MIRA 14:4)
                  (Silicon organic compounds)
                  (Chromatographic analysis)

SHEMYATENKOVA, V.T.; PALAMARCHUK, N.A.; KHVOSHCHEVSKAYA, A.A.;
SYAVTSILLO, S.V.

Controlling the production of organosilicon liquids and lacquers.
Report 1: Analysis of the starting mixtures used in the organo-
magnesium synthesis of ethyl- and ethoxyphenylsilanes. Plast.
massy no.3:27-30 '60.   (MIRA 13:6)
                    (Silane)

KRESHKOV, A.P.; SHEMYATENKOVA, V.T.; SYAVTSILLO, S.V.; PALAMARCHUK, N.A.
    Prinimali uchastiye: KHVOSHCHEVSKAYA, A.A.; KHARCHEVNIKOVA, L.M.

Determination of phenyl radicals in organosilicon compounds. Zhur.
anal. khim. 15 no.5:635-638 S-O '60.   (MIRA 13:10)

1. D.I. Mendeleev Moscow Chemico-Technological Institute.
        (Silicon organic compounds)   (Phenyl group)

S/191/6'/000/'.04/'.06/009
B110/B208

AUTHORS: Turkel'taub, N. M., Palamarchuk, N. A., Shemyatenkova, V T.,
              Syavtsillo, S. V.

TITLE: Chromatographic analysis of organosilicon compounds
              (analysis of the reaction mixture of the direct synthesis
              of methyl chloro-silanes)

PERIODICAL: Plasticheskiye massy, no. 4, 1961. 51-56

TEXT: The numerous chloro-compounds contained in the reaction mixture of
the direct synthesis of methyl chloro-silanes, such as HCl, CH_3Cl,
$(CH_3)_4Si$, $HSiCl_3$, $(CH_3)_2HSiCl$, CH_3HSiCl_2, $(CH_3)_3SiCl$, $SiCl_4$, CH_3SiCl_3,
$(CH_3)_2SiCl_2$ etc . have hitherto been fractionated and determined with
respect to density and chlorine content. K. K. Popkov suggested analysis
by means of dispersion spectra. These methods, however, are not applicable
to automatic production control. Gas chromatography is adequate for this
purpose. The optimum conditions for the separation of methyl chloro-
silanes have now been determined. Fig. 1 shows the device used Helium

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S/191/61/000/014/006/009
B110/B208

Chromatographic analysis of...

served as the carrier gas   The temperature of the dosing device, the detector, and the column was adjusted by a thermostat with an accuracy of 0.5°C   The components were identified from the retained volume V_g^0 The percentual concentration C_i was calculated by measuring the area of the peaks according to $C_i = \left[(S_i \cdot K_{si})/(\sum S_j \cdot K_{sj})\right] \cdot 100$, where S_i = area of the peak; K_{si} = standardizing coefficients of all components of the system studied   The equation $K_{si} = (S_c/S_i) \cdot (C_i/C_c)$ holds, where S_c = surface of the peak; C_c = concentration of the standard component   The following data were studied: dependence of the degree of separation on the various static and dynamic parameters, nature of the solid carrier, stationary phase, velocity and moisture content of the carrier gas, and column temperature, Carrier gas, solid carrier, and stationary phase have to be carefully dried   Celite-545 (water capacity 0.02 %) and annealed Inza clinker of the type 600 (water capacity 0.87 %) were used as solid carriers. To study the effect of the stationary phase on the degree of separation, non-polar compounds (vaseline oil and dodecane), highly polar compounds (nitrobenzene and diethylene glycol ester of n-butyric acid), as well as

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S/191/6?/000/?04/006/009
B110/B208

Chromatographic analysis of...

the polyethyl-siloxane liquids BKX-94 (VKZh-94) and TM?-200 (PMS-200), the polymethyl-phenyl-siloxane liquids ПϾ?-3 (PFMS-3), ϾϾ?-4 (PFMS-4), and ДϹ-703 (DS-703) with different degrees of polarity were studied. Complete separation was accomplished by TϾϾ-4 (PFMS-4) polymethyl-phenyl-siloxane and vaseline oil, as well as by ϢϾϾϹ-3 (PFMS-3) and ДϹ-703 (DS-703). The optimum velocity of the carrier gas is α = 80 cm/min at a maximum separation criterion K_1 = 2.6 and minimum theoretical plate height H = 0.21 cm for $(CH_3)_3SiCl$ and CH_3SiCl_3. The lowest theoretical plate height H = 2.4 cm is obtained at 40°C. The separation criterion decreases with rising temperature. Only three experiments were carried out: 1) As a stationary phase, nitrobenzene (20 % of the total weight of the adsorbent) was applied to Inza clinker (granulation 0.25-0.5 mm). Separation of HCl, CH_3Cl, $SiCl_4$, $(CH_3)_3SiCl$, $(CH_3)_2SiCl_2$, and CH_3SiCl_3 was attained at 40°C and 20 min duration of the experiment with a 2 m long column 4-5 mm in diameter (Fig. 4). In the second experiment, two columns connected in series were used. The first 1 m long column (diameter 4 mm) contained TϾϾϹ-4 (PFMS-4) (15 % of the total adsorbent weight), and the second 3 m long column (diameter 4 mm), vaseline oil (15 % of the total adsorbent

Card 3/10

Chromatographic analysis of...

weight). The solid carrier was celite-545. At 40°C, the following compounds were thus separated: HCl, CH_3Cl, $(CH_3)_4Si$, $HSiCl_3$, CH_3HSiCl_2, $(CH_3)_3SiCl_3$, $(CH_3)_2SiCl_2$. The stationary phase of the third experiment was ТФМС-3 (PFMS-3) and ДС-703 (DS-703) (20 % of the total absorbent weight). The solid carrier was Inza clinker. The following compounds were separated at 40°C with a 4 m long column (diameter 4 mm): HCl, CH_3Cl, $HSiCl_3$, CH_3HSiCl_2, $(CH_3)_3SiCl$, $SiCl_4$, CH_3SiCl_3, $(CH_3)_2SiCl_2$. The following co-workers are mentioned: L. A. Nechayeva, A. A. Khvoshchevskaya and Ye. N. Balabanova. There are 6 figures, 5 tables, and 13 references: 8 Soviet-bloc and 5 non-Soviet-bloc. The references to English-language publications read as follows: Ref. 10: L. C. Curran, R. M. Witucki, P. A. McCusker, J. Am. Chem. Soc., 72, No. 10, 4471 (1960) Ref. 11: Edward, L. Reilly, I. Am. Chem. Soc., 76, No. 12, 3311 (1954) Ref. 12: W. H. Mefadden, Anal. Chem., 4, 479 (1958).

Card 4/10

L 12994-63   EWP(j)/EPF(c)/EWT(m)/BDS   ASD   Pd-4/Pr-4   RM/WW
ACCESSION NR: AT3002347   S/2513/63/013/000/0277/0283

AUTHOR: Palamarchuk, N. A.; Syavtsillo, S. V.; Turkel'taub, N. M.;
Shemyatenkova, V. T.

TITLE: Chromatographic determination of chlorosilanes

SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy, v. 13, 1963.
Organicheskiy analiz, 277-283

TOPIC TAGS: chromatography, chlorosilane, helium, celite, dimethyldichloro-
silane, benzylbenzoate

ABSTRACT: This investigation is a continuation of a previous work which was
done on the separation of chlorosilanes by gas-liquid chromatography. The
present investigation was performed under isothermal conditions using helium as
the carrier gas and a detector with two platinum elements embedded in glass. Each
element had a 30 ohm resistance with a sensitivity of 600 mv. ml/mg. The identi-
fication of chlorosilanes was made according to their specific gravity and the
relative retentive volume. The content of various components was determined by
peak areas or peak heights by means of normalization. The solid support celite
or diatomaceous brick was treated with dimethyldichlorosilane vapors in a dry,
Card 1/2

L 12974-63
ACCESSION NR: AP3002347   O

inert atmosphere after which its adsorption capability sharply decreased. In order
to select the most effective stationary phase, several new materials were added to
the ones previously investigated. These included benzylbenzoate, dimethylphthalate,
dibutylphthalate, dinonylphthalate, tricresylphosphate, and diethylphthalate.
On the basis of the obtained data stationary phases were selected which permit a
complete separation of the components in a shortest amount of time. The station-
ary phases which are suggested to be used in an amount of 10% on celite or
modified brick are benzylbenzoate, dibutylphthalate and diethylphthalate. With a
column of 2.7-3.5 m long and 4 mm in diameter at a temperature of 30C and 40 ml/min
gas flow, a complete separation of the following components takes place: (CH sub
3) sub 2 SiCl sub 2, CH sub 3 SiCl sub 3 SiCl, CH sub 3 HSiCl sub 2, (CH sub 3)
sub 2 HSiCl, SiCl sub 4, HSiCl sub 3, H sub 2 SiCl sub 2, and CH sub 3 Cl. The
time of analysis is 20 minutes with an accuracy of 2-3% relative error. Orig.
art. has: 2 tables and 2 graphs.

ASSOCIATION: none

SUBMITTED: 00   DATE ACQ: 13Jun63   ENCL: 00

SUB CODE: CH   NO REF SOV: 003   OTHER: 003

Card 2/2

TURKEL'TAUB, N.M.; SHEMYATENKOVA, V.T.; PALAMARCHUK, N.A.; NECHAYEVA, L.A.

Accuracy in determining the composition of a mixture by the various methods of interpretation of chromatograms. Zav.lab 26 no.10:1075-1080 '60.   (MIRA 13:10)

(Chromatographic analysis)

SHEMYATENKOVA, V.T.; PALAMARCHUK, N.A.; KHVOSHCHEVSKAYA, A.A.;
STAVTSILLO, S.V.

Control of the production of organosilicon liquids and
lacquers. Plast.massy no.4:15-17 '60.   (MIRA 13:7)
(Silane)

S/075/60/015/005/003/004
B005/B064

AUTHORS: Kreshkov, A. P., Shemyatenkova, V. T., Syavtsillo, S. V.,
             Palamarchuk, N. A.

TITLE: Determination of Phenyl Radicals in Organosilicon Compounds

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 5,
             pp. 635-638

TEXT: The authors of the present paper developed a new method of
quantitative determination of phenyl groups in organosilicon compounds.
It is based on the ethylation of the respective compound with ethyl
bromide in the presence of anhydrous aluminum chloride. This ethylation
may take place according to two mechanisms: in one mechanism the Si - C
bond is ruptured under the action of $AlCl_3$ and an organoaluminum compound
forms, that is stepwise ethylated. This ethylation proceeds until the
step of hexaethyl benzene is reached. In the other mechanism, under the
action of $AlCl_3$, an alumo-organosilicon compound forms, that is ethylated
by ethyl bromide. The Si - C bond is solved under the formation of
hexaethylene benzene. The reaction schemes of both mechanisms are given

Card 1/3

Determination of Phenyl Radicals in   S/075/60/015/005/003/004
Organosilicon Compounds   B005/B064

Hexaethyl benzene is obtained with slight impurities of other ethylating
benzene derivatives (Ref. 10) if the reaction products are saponified with
water. From the amount of the hexaethyl benzene, it is possible to draw
conclusions to the content of phenyl groups in the initial organosilicon
compound. Since hexaethyl benzene has a high molecular weight and is not
volatile, extremely accurate results are obtained from this determination.
If constant conditions are observed in ethylation, also the reproducibility
of the results is good. The method described is suited for determining
benzene and its derivatives in purely organic compounds. The authors
investigated phenyl trichlorosilane, methyl phenyl dichlorosilane, poly-
phenyl siloxane, polymethyl-phenyl siloxane and other organosilicon com-
pounds with phenyl groups directly bound to silicon. Ethyl bromide serves
at the same time as solvent in the reaction. 6-7 g anhydrous aluminum
chloride and 35-40 g ethyl bromide are taken for 2-2.5 g of the organo-
silicon compound to be investigated in the analysis of compounds with one
phenyl radical per structural unit. Ethylation is carried out at $40^{\circ}C$ and
is finished after two hours. After the decomposition of the reaction
products with water, the ethyl derivatives of benzene are extracted with
slight amounts of ether. The extract is washed with water until neutral

Card 2/3

Determination of Phenyl Radicals in   S/075/60/015/005/003/004
Organosilicon Compounds   B005/B064

reaction is reached, then ether and the excess ethyl bromide are distilled
off. The residue is dried in the vacuum exsiccator over P_2O_5. After re-
crystallization from ethanol or glacial acetic acid hexaethyl benzene is
obtained in the form of white prisms melting at $126^\circ C$. The formula is
given with which the content of phenyl groups in the initial compound can
be determined. This formula comprises the ethylation coefficient that was
experimentally found by ethylating various chemically pure organosilicon
compounds. This coefficient has the value 0.91 ± 0.01. A table shows the
results of determining the phenyl radicals in phenyl trichlorosilane,
methyl-phenyl dichlorosilane, polyphenyl siloxane and polymethyl-phenyl
siloxane by the method described. The results are reproducible with an
accuracy of $\pm$ 1-1.5% (absolute). A. A. Khvoshchevskaya and L. M.
Kharchevnikova took part in the experiments. There are 1 table and 11
references: 6 Soviet, 4 US, and 1 German.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I.
               Mendeleyeva (Moscow Institute of Chemical Technology imeni
               D. I. Mendeleyev)

SUBMITTED: July 27, 1959

Card 3/3

S/191/60/000/003/007/013
B016/B054

AUTHORS: Shemyatenkova, V. T., Palamarchuk, N. A.,
Khvoshchevskaya, A. A., Syavtsillo, S. V.

TITLE: Control of Production of Organosilicon Liquids and
Varnishes. Report I. Analysis of Initial Mixtures of
Ethyl- and Phenyl-ethoxy Silanes Used in Organomagnesium
Synthesis

PERIODICAL: Plasticheskiye massy, 1960, No. 3, pp. 27 - 30

TEXT: The authors report on their rapid and sufficiently accurate meth-
od of determining the components of the initial mixture used for the
synthesis of 1) ethyl-ethoxy silanes and 2) phenyl-ethoxy silanes. In
case 1), it is tetraethoxy silane, ethyl chloride, and toluene (solvent),
in case 2), it is tetraethoxy silane, chloro benzene, diethyl ether,
and ethyl bromide. The amount of ethyl chloride is determined from the
difference before and after its evaporation from the mixture. The re-
maining tetraethoxy silane and toluene are then determined refracto-
metrically. The ratio between tetraethoxy silane and chloro benzene

Card 1/2

Control of Production of Organosilicon Liquids   S/191/60/000/003/007/013
and Varnishes. Report I. Analysis of Initial   B016/B054
Mixtures of Ethyl- and Phenyl-ethoxy Silanes Used
in Organomagnesium Synthesis

(case 2) can also be determined refractometrically. Small amounts of
diethyl ether and ethyl bromide (3.5% each) do not interfere with the
determination. In all cases, the authors produced artificial mixtures
for experimental purposes, and also studied commercial mixtures. The
above-described method is being introduced in industrial test labora-
tories. A paper by V. L. Anosov (Ref.1) is mentioned. There are
7 tables and 5 Soviet references.

Card 2/2

KRKUKH, A.M.; LICHIKAKI, V.M.; PAIAMARCHUK, N.P.; TREGUBOVA, A.S.

Significance of the hydrological properties of soil when determined by indoor cultivation of plants in pots. Dop. AN URSR no.4:275-279 '54.

(MLRA 8:4)

1. Ukrains'kiy n.-d. gidrometeorologichniy institut. Predstavleno deystvitel'nym chlenom AN USSR P.S.Pogrebnyakom.

(Soil moisture)

PAIAMARCHUK, P.A.

Specialized production. Zhivotnovodstvo 20 no.1:20-24 Ja '58.
(MIRA 11:1)

1. Starshiy zootekhnik Stalinskogo oblsel'khosupravleniya.
(Stalino Province--Poultry)

NALIVKINA, E.B.; PALAMARCHUK

Pseudotachylyte in the Bug Valley. Mat. VSEGEI no. 21:81-88 '57.

(MIRA 11:7)

(Bug Valley--Tachylyte)

PALAMARCHUK, S.L., brigadir

Our gift to the party congress. Sil'. bud. 11 no.8:5-6
Ag '61.   (MIRA 14:9)

1. Stroitel'naya brigada Kodimskoy mezhkolkhoznoy organizatsii
Odesskoy oblasti.
                    (Odessa Province—Construction industry)

DAVYDOV, Aleksey Iosifovich; BODROVA, A., red.; PALAMARCHUK, T., red.; LEV-
CHENKO, O., tekhn. red.

[The growth and rapid development of the socialist city of Kiev]
Roste i kvitne sotsialistychnyi Kyiv. Kyiv, Derzh. vyd-vo polit.
lit-ry URSR, 1961. 133 p.   (MIRA 14:8)
    (Kiev—Description)   (Kiev—Economic conditions)

ZAGLADA, Nadezhda Grigor'yevna, Geroy Sotsialisticheskogo Truda,
      deputat Verkhovnogo Soveta USSR; DEMIDYUK, V.F., red.;
      PALAMARCHUK, T.L., red.; LASTOVETS, Z.S., tekhn. red.;
      KOPYTKOVA,N.K., tekhn. red.

      [Life, work, and meditations; a story of a field-team leader]
      Zhizn', trud, razdum'ia; rasskaz zven'evoi. Kiev, Gospolitiz-
      dat USSR, 1963. 114 p.   (MIRA 16:12)
         (Zaglada, Nadezhda Grigor'evna, 1893-)

ZAGLADA, Nadezhda Grigor'yevna[Zahlada, N.H.], Geroy Sotsialisti-
    cheskogo Truda; DEMIDYUK, V.F.[Demydiuk, V.F.], red.;
    PALAMARCHUK, T.L., red.; LASTOVETS', Z.S., tekhn. red.

    [Life. Work. Meditation; a field leader tells her story]
    Zhyttia. Pratsa. Rozdumy; rozpovid' lankovoi. Kyiv, Derzh-
    politvydav URSR, 1962. 106 p.   (MIRA 16:4)
                (Ukraine--Agricultural workers)

PALAMARCHUK, V.I.

Data for the study of fish in the Transcarpathian Province.   Biul.MOIP. Otd.
biol. 58 no.5:35-37 '53.   (MLRA 6:11)
                        (Transcarpathia--Fishes)   (Fishes--Transcarpathia)

KRIVKOV, G.A.; VEKSLER, Ya.!.; KORZAN, D.P.; SHEYNGERTS, A.R.;
    KHASABOVA, V.A.; PALAMARCHUK, V.P.

Experimental myocarditis in acute radiation sickness. Fat.
fiziol. i eksp. terap. 6 no.4:81-83 Jl-Ag '62.   (MIRA 17:8)

PALAMARCHUK, V.P.

Method of anesthesia and bronchial intubation in bronchography.
Vest. rent. i rad. no.6:62-63 N-D '54. (MLRA 8:1)
(BRONCHI, radiography,
anesth. & intubation technics)
(ANESTHESIA, INHALATION,
in bronchography)

ALEXEJEV, M.V. (Kiev); BORISOV, S.P. (Kiev); PALAMARCUK, V.S. (Kiev)

Seamless insulation from foam polysterene. Stroj vyr 11 no.6: 319 '63.

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ALEKSEYEV, M. V., inzh.; BORISOV, S. P., inzh.; PALAMARCHUK, V. S., inzh.

Manufacturing seamless foam polystyrene insulation. Mashino-stroenie no.5:87-89 S-O '62.   (MIRA 16:1)

1. Proyektno-konstruktorskiy tekhnologicheskiy institut Kiyevskogo soveta narodnogo khozyaystva.

(Styrene, Polymers of)   (Insulation(Heat))

Palamarchuk, E. M.

133-10-17/26

AUTHOR: Palamarchuk, E. M. Engineer.

TITLE: Wear of Rolls of Continuous Sheet Mills. (Iznos Valkov Neprepyvnykh Listovykh Stanov).

PERIODICAL: Stal', 1957, No.10, pp. 929-933 (USSR).

ABSTRACT: An investigation of the rate and causes of wear of rolls on a continuous hot rolling mill (1680) is described. The instrument used for measuring the wear of rolls is shown in Figure 1. The results of some measurements are shown graphically in Figures 2-4. The influence of hardness of the working roll on the wear of the backup roll was investigated by studying macro and microstructure and changes in the surface of pairs of alloyed and not alloyed rolls withdrawn from service (Figs. 5, 6 and 7). It is concluded that in order to obtain uniform thickness across the width of sheets, the wear of backup rolls should be at a minimum. The wear of backup rolls, caused by mechanical abrasion during slipping of the working roll or "impression" of the surface of the worn roll into the less hard surface of backup roll, depends on the material, structure and hardness of surfaces of rolls in pairs of working and backup rolls. The roughness of the

Card 1/2

KAMAYEV, A.V.; DUBOVSKIY, B.G.; VAVILOV, V.V.; POPOV, G.A.;
PALAMARCHUK, Yu.D.; IVANOV, S.P.

[Experimental study of the effects of interaction of two
subcritical reactors] Eksperimental'noe izuchenie ef-
fektov vzaimodeistviia dvukh podkriticheskikh reaktorov.
Moskva, Glav. upr. po ispol'zovaniiu atomnoi energii,
1960. 10 p.   (MIRA 17:1)

DUBOVSKIY, B.G.; KAMAYEV, A.V.; VLADYKOV, G.M.; KUZNETSOV, F.M.; NOZIK, V.Z.;
    PALAMARCHUK, Yu.D.; POPOV, G.A.; VAVILOV, V.V.

    Interaction in subcritical reactors. Atom. energ. 16 no.1:16-20 Ja
    '64.   (MIRA 17:2)

L 41367-65   EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(t)/EWP(b)   Pr-4/Ps-4/Pu-4
1 (c)   JD/WW/JG
ACCESSION NR: AP4012261   S/0089/64/016/001/0021/0025

AUTHOR: Dubovskiy, B. G.; Kamayov, A. V.; Kuznotsov, F. M.; Vlady*kov, G. M.;
Popov, G. A.; Palamarchuk, Yu. D.

TITLE: Critical parameters of aqueous salt solutions $UO_2(NO_3)_2$

SOURCE: Atomnaya onergiya, v. 16, no. 1, 1964, 21-25

TOPIC TAGS: nuclear reactor, reactor core, critical mass, neutron
multiplication, neutron absorption, neutron moderation, cylindrical reactor,
aqueous salt solution

ABSTRACT: Experiments designed to determine the critical volumes of aqueous salt
solutions $UO_2(NO_3)_2$ with 90% enriched uranium were made for reactors in the shape
of spheres, cylinders and rectangular parallelepipeds, with and without water re-
flectors. Uranium concentration in aqueous salt solutions varies from 36 to 460
g/l, which corresponds to a change in the ratio of hydrogen nuclei ρ_H to nuclei
of $U235$ from 780 to 50. In the case of the spherical reactor, the critical mass
and critical volume were also determined through correlation of the geometric
parameters of the cylindrical and rectangular-parallelepiped reactors with those

Cord 1/2

L 41357-65
ACCESSION NR: AP4012261

0

of a spherical reactor. This method gives results with an accuracy of $\pm 10\%$ for
solutions with water reflectors and $\pm 5\%$ for solutions without reflectors. The
effect of the steel bottom of the parallelepiped on the critical height of the
solution in the presence of a water-reflector was studied by changing the thickness
of the steel between the core and water reflector from 3 to 47 mm. It is pointed
out, in conclusion, that the results of the critical experiments can be used to
determine the critical parameters of reactor cores in the shape of spheres, cyl-
inders, and rectangular parallelepipeds containing aqueous water solutions of
$UO_2(NO_3)_2$. The minimum critical parameters of the aqueous solutions of the
$UO_2(NO_3)_2$ salt, obtained by transformation of the geometrical parameters have the
following values: critical volume, 8.4 liters; critical mass of U235, 0.85 kg;
diameter of the infinite cylinder, 16.7 cm; thickness of the infinite plate, 6.9
cm. Orig. art. has: 6 figures, 5 formulas, 1 table.

ASSOCIATION: none
SUBMITTED: 17Nov62   ENCL: 00   SUB CODE: NP

NO REF SOV: 004   OTHER: 001

Card 2/2

L 33245-65   EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EPB   Pr-4/Pa-4/Pu-4   DM

AUTHOR: Dubovskiy, B. G.; Kamayev, A. V.; Vlady*kov. G. M.; Kuznetsov,
F. M.; Nozik, V. Z.; Palamarchuk, Yu. D.; Popov, G. A.; Vavilov, V. V.

34

TITLE: Interaction of subcritical reactors

33

19

SOURCE: Atomnaya energiya, v. 16, no. 1, 1964, 16-20

15

TOPIC TAGS: subcritical reactor interaction, reactor safety estimation, fission-
able material, equivalent reactor dimension , reactor dimension computation

ABSTRACT: The purpose of the present work is to obtain a method for a reliable
safety estimation of interacting systems containing fissionable materials. This
estimation is used to provide a safety margin for producing, storing, and trans-
porting fissionable materials. The method of equivalent size has been developed
by the authors. This method, in essence, is based on the assumption that a set
of subcritical assemblies with specific nuclear properties and geometric para-
meters can be replaced by a nuclear reactor with equivalent geometrical buckling

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L 33245-65
ACCESSION NR: AP4012260

and the former nuclear characteristics. The device for studying the interaction of subcritical assembly in a three dimensional lattice is shown in Fig. 1(Enclosure). The results of the computation are found to be in good agreement with experimental results, having in all cases a safety margin. "The authors are grateful to V. G. Zagrafov for valuable comments." Orig. art. has: 6 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 17Nov62   ENCL: 001

SUB CODE: NP   NR REF SOV:002   OTHER: 002

Card 2/3

DUBOVSKIY, B.G.; KAMAYEV, A.V.; KUZNETSOV, F.M.; VLADYKOV, G.M.; POPOV, G.A.;
PALAMARCHUK, Yu.D.

Critical parameters of aqueous solutions of $UO_2(NO_3)_2$. Atom. energ.
16 no.1:21-25   Ja '64.   (MIRA 17:2)

PHASE I BOOK EXPLOITATION   SOV/5357

Panasenkova, Ye. I., ed.

Issledovaniya kriticheskikh parametrov reaktornykh sistem; sbornik statey (Study of Critical Parameters of Reactor Systems; Collection of Articles) Moscow, Gostomizdat, 1960. 117 p. Errata slip inserted. 3,600 copies printed.

Tech. Ed.: N.A. Vlasova.

PURPOSE: This collection of articles is intended for nuclear physicists and engineers of nuclear power plants.

COVERAGE: The book contains previously unpublished original articles concerned with the theoretical calculation of neutron fluxes and of critical parameters (critical masses and volumes) of various reactor systems: uranium-graphite, uranium-beryllium, and water mixture of uranium and plutonium. Individual articles present tables and graphs used in the determination of the character of the dependence of critical parameters on the relative concentration and the fuel enrichment for a fissionable material and the moderator, as well as on fuel enrichment. The following are mentioned: P.A. Gavrilov vide range of neutron energy spectra. The following are mentioned: P.A. Gavrilov (scientific editor of the collection), and S.I. Sokolov, L.N. Spakbova, A. Ya. Rymsha, R.P. Roschina and V.5. Vladairov (compilers of Table 1, table of values of coefficients k_{∞} and ν). References accompany individual articles.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

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JA/dwm/mas
7-29-61

L 64736-65   EWT(m)/EPF(c)/EPF(n)-2/EWG(m)   WH/DM
ACCESSION NR: AP5019803   UR/0089/65/019/001/0014/0019 39
                                                 621.039.520.22

AUTHOR: Vladykov, G. M.; Dubovskiy, B. G.; Kamayev, A. V.; Sviridenko, V. Ya.;
Kuznetsov, F. M.; Popov, G. A.; Palamarchuk, Yu. D.

TITLE: Efficiency of heterogeneous absorbers in homogeneous uranium-water reactors

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 14-19

TOPIC TAGS: water moderated reactor, homogeneous nuclear reactor, neutron flux,
neutron absorber, reactor control, nuclear reactor core

ABSTRACT: The authors investigated the effect of various absorbers on the value
of the critical mass of homogeneous uranium-water reactors. The experiments were
made both with reactors having no reflectors and with reactors provided with bottom
or side water reflectors up to 25 cm thick. The core was an aqueous solu-
tion of $UO_2(NO_3)_2$ in cylindrical steel tanks with walls made of 1.5 mm 1Kh18N9T
stainless steel. The absorbing rods were made of powdered boron carbides clad in
stainless steel, or else of water-filled cadmium tubing also clad in stainless
steel. The efficiency of the absorbing rod is defined as the change in
the critical volume or critical height of the reactor assembly with and without the
absorber. The efficiency of an isolated rod or of a group of rods was measured as

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ACCESSION NR: AP5019803

as a function of the absorber dimension and of the uranium concentration in the core. The results are presented in the form of a set of plots and tables, in which the experimental data are compared with the values calculated by the two-group theory. The difference between the results is on the order of 10%. Increasing the number of rods in the group increases the critical volume and thus contributes to the safety of the reactor. The use of steel cladding for the absorber rods contributes to the rod efficiency. Orig. art. has: 8 figures, 4 formulas, and 2 tables.

[02]

ASSOCIATION: none

SUBMITTED: 20Jul64

NO. REF SOV: 005

ENCL: 00

OTHER: 000

SUB CODE: NP

ATD PRESS: 4078

Card 2/2

PALAMARCHUK, Z.N.

Improve the work relative to inventions and more efficient operation.
Sakh.prom.30 no.6:1-4 Je '56.   (MLRA 9:9)

1.Ukrglavsakhar.
                  (Sugar industry)

PALAMARCHUK, Z.N.

Bucket-type unloader designed by N.K.Udalov. Sakh.prom. 30 no.1:
19   Ja '56.   (MLRA 9:6)

1.Glavsakhar.
        (Sugar industry--Equipment and supplies)

PALAMARENKO, A.Z., inzh.

High sensitivity safety clutch. Izv.vys.ucheb.zav.; tekh.leg.prom.
no.1:168-172 '63.   (MIRA 16:3)

1. Kiyovskiy tekhnologicheskiy institut pishchevoy promyshlennosti.
Rekomendovana kafedroy detaley mashin i pod"yemno-transportnykh mashin.
                 (Food machinery—Safety appliances)

PALAMEENKO, A.

Safety clutch with high sensitivity and its characteristics.
Trudy KTIII no.27:142-145 '61.

PALAMARENKO, A.Z., assistent

Calculating engineer N.D.Verner's multiplate clutch. Izv. vys. ucheb. zav.; mashinostr. no.8:78-82 '65.   (MIRA 18:10)

PALAMARENKO, Aleksandr Zakharovich; TANCHAROVA, V., red.;
        POSMETUKHIN, N., tekhn. red.

[Safety measures in bench work] Tekhnika bezopasnosti pri
slesarnykh rabotakh. Kiev, Gos. izd-vo izd-vo tekhn. lit-ry
USSR, 1961. 90 p.   (MIRA 15:4)
                        (Machine-shop practice--Safety measures)

COUNTRY	: USSR.
CATEGORY	: Farm Animals.
	The Swine.
ABS. JOUR.	: RZhBiol., No. 3, 1959, No. 12061
AUTHOR	: Balashov, N. T.; Kalamarenko, I. K.
INST.	: Askaniya-Nova Ukranian Scientific Research*
TITLE	: The Interspecies Crossing of Pigs.
ORIG. PUB.	: Tr. Ukrainsk. n.-i. in-ta zhivotnovodstva, "Askania-Nova", 1957, 6, 98-104

Q

ABSTRACT : An experiment on fattening which was carried
out on a small number of heads at the Cher-
vonyy sovkhoz in Zaporozhskaya oblast' showed
that hybrids which were obtained by crossing
sows of the Ukranian Steppe white breed with
boars of the Mirgorodskaya breed surpassed
purebred animals when fattening was discon-
tinued by 11.3 percent to live weight, by
4.5 percent in lard yield of carcasses, while
by comparison to hybrids of the Ukranian
Steppe white breed and the large white breed

Card: 1/2
*Institute of Animal Husbandry.

CHEBOTAY~~, N. F., TAL~MARENKO, I. K.

Pumpkin

Pumpkin is a valuable feed crop. Sots. zhiv. 14 no. 6, 1952.

2

9. **Monthly** **List** **of** **Russian** **Accessions**, Library of Congress, _____August_____ 195~. Unclassified.

BALASHOV, M.T., kand.sel'skokhoz.nauk; PALAMARENKO, I.K., kand.sel'skokhoz.
        nauk; SAVCHENKO, P.Yu., kand.biolog.nauk; LUZHKOV, M.O., nauchnyy sotrudnik

Comparative studies on some biological characteristics of hybrid
swine.   Nauk.pratsi "Ask.-Nov." 9:3-9 '61.   (MIRA 15:3)
                        (Swine breeding)

KITANOV, B.; PALAMAREV, Em.

      The Eocene Charophyta from the Khadzhi Dimitur coal mine, Sliven
region. Godishnik biol 56 no.1:1-10 '61-'62 [publ. '63].

PALAMAREV, Em.

Fossil flora of the Paleogene in the Samokov region. Izv.
inst.bot. BAN 10:'15-21   '62

KHADZHIEV,P.T.; PALAMAREV,Em.

The Sarmatian flora in north Bulgaria, Pt.1. Izv. inst. bot.
BAN 10:5-13 '62.

PALAMAREV, Em.

Fossil flora of the Pirin coal-bearing Tertiary. Izv Inst
bot BAN 11 69-101 '63.

PALAMAREV, Em.

Materials from the studies of the Tertiary flora in the Samokov
region. Izv Inst bot BAN no.8:175-208 '61.

PALAMAREV, Emanuil

Rare and interesting plants in the Bulgarian flora. Prir i znanie 15
no.7:15-18 S '62.

PALAMAREV, Emanuil

Paleobotanical studies of the Chukurovo Coal Basin. Izv Inst bot
BAN 13:5-80 '64.

Some new data on the fossil flora of the Pirin coal-bearing
Tertiary. Ibid.:129-148

PETROV, Slavcho; PALAMAREV, Emanuil

Paleobotany in a textbook on paleontology. Izv Inst bot BAN
13:155-159 '64.

PALAMAREV, Emanuil

Visible remnants of a disappeared plant world. Prir i znanie 13
no.3:12-16 Mr '60.   (EEAI 9:10)
     (Paleobotany)

PALAMARU, E.

"Constructions for silage."

p. 14 (Drumul Belsugului) No. 7, July 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
      April 1958

RUMANIA

PALAMARU, E., Dr and HORNOIU, M., Dr, of the Zootechnical Re-
search Institute (Institutul de Cercetari Zootehnice),.

"The Use of Corn Cobs and Stalks Together with Molasses and Urea
in the Fattening of Cattle."

Abstract [Authors' English summary modified]: Good results were
obtained with a mixture of 6 to 8 kilograms of corn cobs and
stalks (beaten and ground) with 2 to 2.5 kilogram of molasses and
100 to 165 gram of urea per adult head of cattle (80 to 125 gram
per calf) together with small quantities of silage, hay and con-
centrat. Once the animals were used to the diet, the audition
of hay and concentrates was no longer necessary. Another economic
method of using corn stalks is to silo them together with molasses
(2 percent of the weight of the stalks) and urea (0.5 percent of
the weight of the stalks).
        Includes 3 tables.

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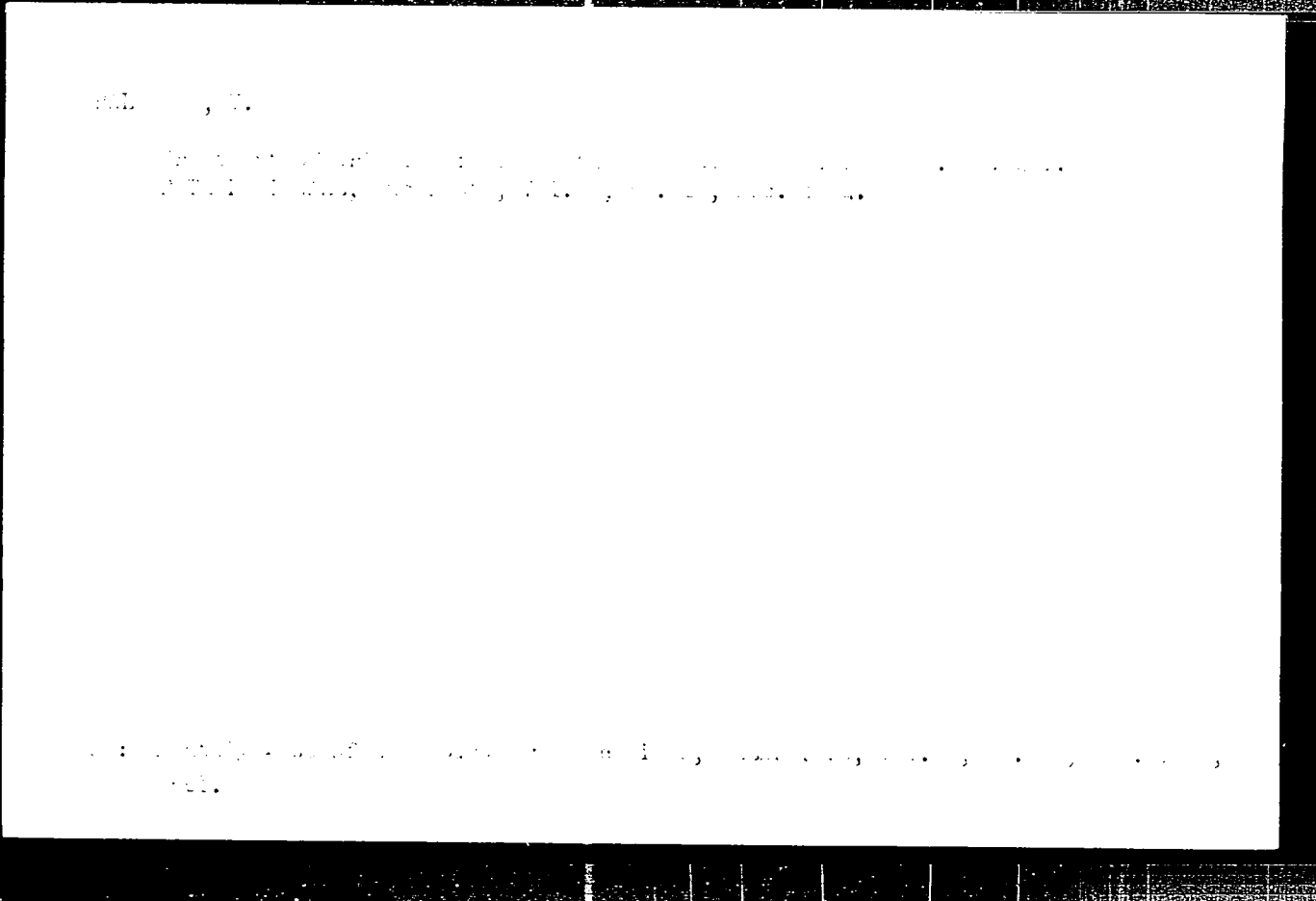
S/146/61/004/006/002/020

D249/D301

$7.3270 (1040,1159)$

AUTHOR: Palamaryuk, G. O.

TITLE: Design of a phase-sensitive electronic demodulator

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostro-
               yeniye, v. 4, no. 6, 1961, 10-16

TEXT: The operation of the electronic demodulator is analyzed
theoretically, special attention being paid to the questions of
load and drift. A typical circuit diagram is shown in Fig. 1. With
reference to this figure, two cases are considered depending on
the waveshape of the driving voltage U_1; a) U_1 is a square wave
and, b) sinusoidal wave: Case a: with the output filter disconnec-
ted, the magnitude of the rectangular pulse output (i.e the vol-
tage U_D at the point d) for a symmetrical demodulator ($R_1 = R_2 =$
$= R_4 = R_5 = R_0$, $R_3 = R_6 = R_0'$ and $U_m' = U_m''$) is given by the general
formula

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Design of a phase-sensitive ...

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$$U_D = \frac{\sum\limits_{i=1}^{i=n} \dfrac{U_{0i}}{R_i}}{\sum\limits_{i=1}^{i=n} \dfrac{1}{R_i}}$$

(2)

By substituting into Eq (2), one gets $U_D = \dfrac{U_o}{4}$. The effect of the addition of the output filter is to decrease U_D by an amount whi r. corresponds to the potential divider ratio formed by the combined impedances on each side of point d. Therefore, the output voltag: is $U_{out} = U_o x \, \eta$, where

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$$\eta = \frac{1}{4} \frac{R_H^2}{\left(\frac{R_0'}{2} + \frac{R_0}{4} + R_H + R_\Phi\right)^2}$$

where η = transmission factor; K = 0.5 = space factor; $\gamma = \frac{R_I - P_-}{P_H}$

= load factor; R_I = internal resistance of demodulator. Case t
With a sinusoidal driving voltage the shape of U_D is no longer a
single rectangle as it was in the case a), but is now composed ef
fectively of three rectangles. Therefore, the output voltage h
three components each of which can be considered separately in
manner similar to that used in Case a). The transmission coeffi
cient is

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Design of a phase-sensitive ...

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$$\eta = \frac{1}{4} \cdot \frac{R_H}{R_H + R_{auxten} + R_{\phi}} \left(\frac{1}{1 + \gamma} - \frac{3}{1 - \gamma + \frac{2\pi\gamma}{arc\ sin\ \frac{U_o}{2U_m}}} \right)$$

From the plot of η against $U_m^{'}$ and $U_m^{''}$ it is found that the second term in Eq. (18) becomes negligible for $U_m^{'} = U_m^{''} > 60$ V. In a practical demodulator there is invariably a certain amount of asymmetry which is caused by the tolerance values of the components and which is responsible for producing the drift voltage. Denoting by $F_{m..}$ the maximum possible degree of asymmetry $(F_{max}$ $f(R ... R_i)$, the steady and alternating components of the drift voltage are given by expressions

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Design of a phase-sensitive ...

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D249/D301

$$U_D = \frac{U_m}{T} F_{max} \frac{R_H}{R_H + R_{out.ten} + R_\phi} \cdot \frac{2}{1 + q}$$

(24)

and

$$U_P = \frac{1}{2} U_m F_{max} \frac{1}{\omega c (R_\phi + R_{out.ten})}$$

(26)

This article was recommended by the Kafedra vychislitel'noy tekhniki (Department of Computer Techniques). There are 5 figures, 1 table and 4 Soviet-bloc references.

ASSOCIATION: Ryazanskiy radiotekhnicheskiy institut (Ryazan Radiotechnical Institute)

SUBMITTED: February 27, 1961

Card 5/6

L 8589-65   EWT(d)/EWP-2   Po-4/Pq-4/Pe-4/Pi-4   LIP(c)/IFETA/SSD/ASD(a)-5/AFWL/
AFND(p)/AFTC(p)/ESD/ASD(a)/AFTC(b)/ESD(c)/ESD(dp)/IIARK(t)   BB/GW

ACCESSION NR: AT4046532   S/2976/64/000/004/0227/0241

AUTHOR: Palamaryuk, G. O.   B

TITLE: Pulse-frequency dividing device 25

SOURCE: Moscow. Vyssheye tekhnicheskoye uchilishche. Vykchislitel'naya tekhnika,
no. 4, 1964, 227-241

TOPIC TAGS: computer, analog computer, divider, pulse frequency divider, divider
accuracy, frequency converter

ABSTRACT: The article describes the structural principles underlying the design
of a divider of the pulse-frequency type. An analysis of the unit is given from
the point of view of its various accuracy characteristics (theoretical and circuit
accuracy), and the results of an experimental verification of its operation are
considered. The model considered in the article consists of two unbalanced trigger

The system has the capability...

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ACCESSION NR: AT4046532

mathematical values, expressed by a continuous stream of pulses (pulse train).
2.   In a particular case, when one of the input arguments is represented by a DC
voltage, the model solves relations of the type $z = \dfrac{x \cdot y}{y}$. 3. With a load factor
of $\gamma \neq 1$ for the pulse-type voltage divider,   functional relations
can be reproduced. 4. The device is one of a class of high-precision systems.
5. The range of input frequencies is practically unlimited. 6. With frequency
F2 held constant, the model can function as a frequency convertor. Orig. art. has:
1 table, 6 figures and 43 formulas.

ASSOCIATION: Moskovskoye vyssheye tekhnicheskoye uchilishche (Moscow School of
Higher Technical Education)

SUBMITTED: 00   ENCL: 00   SUB CODE: DP

NO REF SOV: 003   OTHER: 000

Card   2/2

L 8590-65   EWT(d)/EED-2   Pc-4/Pg-4/P⌐4/Pc-4;   IJP(c)/ASD(a)-5/AFTC(p)/AFWL/BSD/
SSD/AFETR/AFML(p)/ASD(d)/AFTC(b)/ESD(d|)/EAPN(t)   BB/GG

ACCESSION NR: AT4046533   S/2976/64/000/004/0242/0251

AUTHOR: Palamaryuk, G. O.

TITLE: Analog multiplying-dividing device of the pulse-frequency type

SOURCE: Moscow. Vy*sshaya tekhnicheskoye uchilishche. Vy*chislitel'naya tekhnika,
no. 4, 1964, 242-251

TOPIC TAGS: computer, analog computer, multiplier, divider, pulse frequency
computer, multiplier accuracy

ABSTRACT: A pulse-frequency multiplying-dividing device with intermediate informa-
tion conversion is described in the article, along with an analysis of the accuracy
and the results of an experimental trial of the instrument. This article is a
logical continuation of the preceding paper in this collection, by the same writ-
er. In that article, the author demonstrated how a dividing unit of the pulse-
frequency type can provide the basis for the design of a number of mathematical
models. In a particular case, with the pulse-frequency dividing unit connected to
a circuit of forward and reverse transmission of a system (a DC amplifier with a
controlled-frequency generator) with deep negative feedback, a functional mechanism
is formed which, under specific conditions, will reproduce the operation of multi-
plication. In the present paper, the author shows how this is accomplished. An
Card 1/2

L 8590-65
ACCESSION NR: AT4046533

Interesting feature of the author's accuracy analysis of the model is his separate consideration of the theoretical error, the structural error and the circuit error, with pertinent mathematical expressions derived in each case. In terms of its principle of operation, the device considered in this article is a pulse servo system with variable parameters. The law governing the change of one of the parameters (the feedback circuit element) is unknown. The practical absence of a transient process in the device is explained and an analysis is made of the operational speed of the model. The accuracy analysis of the operation of the multiplying-dividing device which is discussed in the article indicates that its sum static error is not in excess of a few hundredths of a percentage point; that is, the model is one of a class of high-precision, practically inertia-free devices, with a broad range of variation with respect to input and output arguments. The system is, moreover, insensitive to feed voltage fluctuations, and under certain conditions described in the paper provides the possibility of simulating functional relationships. Orig. art. has: 2 tables, 3 figures and 27 formulas.

ASSOCIATION: Hoskovskoye vy*ssheye tekhnicheskoye uchilishche (Moscow School of Higher Technical Education)

SUBMITTED: 00   ENCL: 00   SUB CODE: DP

Card 2/2   NO REF SOV: 002   OTHER: 000

RVACHEV, V.P.; PALAMARYUK, V.Ye.

    Calculation of the quantum yield of photosynthesis.   Fiziol. rast.
12 no.2:371-374 Mr-Ap '65.   (MIRA 18:6)

    1. Chernovitskiy, gosudarstvennyy universitet.

PALAMETA, B.; PROSTENIK, M.

On the erythro and threo-2,3-dihydroxytetracosanoic acids. Croat chem
acta 32 no.4:177-182 '60.   (EEAI 10:9)

1. Department of Biochemistry, Institute "Ruder Boskovic", Zagreb,
Croatia, Yugoslavia.

   (Bromination)   (Oxidation)   (Acids)
          (Configuration)

PALAMETA, B. (Zagreb); PROSTENIK, M. (Zagreb)

Chromatography of the lipide bases on paper impregnated with cilicic acid. Croat chem acta 33 no.3:133-135 '61.

1. Department of Biochemistry, Institute "Ruder Boskovic," Zagreb, Croatia, Yugoslavia.

PALAMODOV, V.

Once more on the convergence of the series $1 + \frac{1}{2} + \frac{1}{2} + \ldots$ (MIRA 11:9)
Mat. pros. no.3:182 '58.

(Convergence)

PALAMODOV, V.P., student I kursa

Convergence of the series. Mat. pros. no.1:148 '57.   (MIRA 11:7)

1.Moskovskiy gosudrastvennyy universitet.
                (Series)

SOV/44-58-4-3003

Translation from: Referativnyy zhurnal, Matematika, 1958, Nr 4,
                    p 84 (USSR)

AUTHOR: Palamodov, V.P.

TITLE: On Polynomials Which Generate a Recurring Sequence of
          the Second Order (O mnogochlenakh, obrazuyushchikh
          vozvratnuyu posledovatel'nost' 2-go poryadka)

PERIODICAL: Matem. prosveshcheniye, Nr 1, 1957, pp 139-147

ABSTRACT: Bibliographic entry.

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16.4160

S/020/60/132/02/14/067

AUTHOR: Palamodov, V. P.

TITLE: Regularization and the Problem of Division

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No 2,
pp. 295-298

TEXT: The author uses the notations of J M. Gel'fand and G Ye Snilov
(Ref.2). The spaces D and G introduced by L. Schwartz (Ref 3) are
especially denoted with K and S. The problem of division (Ref.3)
consists in the question of the solubility of the equation

(1) $FU = T, \quad T \in K'$

in the space K', where F is a given function which is infinitely
often differentiable.
Theorem 1: (1) is soluble in K' if and only if for every n there
exists a regularization of the function $\dfrac{1}{(F\bar{F})^n}$ which satisfies
the condition

(2) $(F\bar{F})^n \left[\dfrac{1}{(F\bar{F})^n} \right] = 1$

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Regularization and the Problem of Division

Theorem 2: Let the function p have the form

$$(3) \quad p = p(y_1, x_1, \ldots, x_n) = y^m + p_1(x_1, \ldots, x_n)\, y^{m-1} + \ldots$$
$$+ p_m(x_1, \ldots, x_n).$$

It exists a regularization of $1/p$ which satisfies (2), if there is a regularization of $1/D_p$ satisfying this condition. Here it is

$$D_p(x) = \prod_m \big(y_i(x) - y_j(x)\big) \quad (x = (x_1, \ldots, x_n)), \text{ if}$$

$$p(x,y) = \prod_{j=1}^{m} \big(y - y_j(x)\big), \text{ where the product for every } x \text{ is}$$

extended over all pairs of roots which in no neighborhood of x are identically equal.

Theorem 3: Over the space K the division is possible by every function which is analytic in the neighborhood of the real manifold

Theorem 4: Let p have the form (3) with infinitely differentiable χ
coefficients and let it vanish only in the origin of coordinates
if among the roots of this polynomial there is a root y_1^+ (y_1^-),
Im $y^+(x) \geq 0$ (Im $y^-(x) \leq 0$), so that the inequality

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Regularization and the Probelm of Division

$$\prod_j |y_i^+(x) - \bar{y_j}(x)| \le C_q |x|^? \left(\prod_j |y_i^-(x) - y^+(x)| \le C_q |x|^? \right);$$

in which the product is extended over all roots $y_i^-(x)$ $(y_j^+(x)$ for which Im $y_i^-(x) \le 0$ (Im $y_j^+(x) \le 0$), holds for all $q > 0$ and some $C_0 > 0$, then $1/p$ is not regularizable over K

Theorem 5: If the roots of p, which has the form (3), satisfy the condition: either Im $y_i(x) \equiv 0$ or $|Im\ y_i(x)| > 0$, then the division through p is possible.

Theorem 6: Independently from the behavior of the roots of p the division through p over the space S^β is possible, if $\beta_1 \le 1$ where β_1 is the index corresponding to y.

Six further theoremsdeal with the application of these results to some differential- and integral equations. The author thanks G Ye Shilov for the guidance.

There are 9 references: 2 Soviet, 3 French, 1 Swedish, 1 Dutch and 1 German.

ASSOCIATION: Moskovskiy gosudárstvennyy universitet imeni M.V.Lomonosova
         (Moscow State University imeni M. V Lomonosov)
PRESENTED: January 15, 1960, by P. S Aleksandrov, Academician
SUBMITTED: January 8, 1960   Card 3/3

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AUTHOR: Palamodov, V.P. (Moscow)

TITLE: On canonical regularization of functions with non-integrable
            singularities

PERIODICAL: Matematicheskiy sbornik, vol.53, no.3, 1961, 353-366

TEXT: I.M.Gel'fand and G.Ye.Shilov (Ref.1: Obobshchennyye funktsii i
deystviya nad nimi [Generalized functions and operations with them],
Moskva, Fizmatgiz, 1958) solved the problem of the canonical
regularization for functions of one variable. The author solves the
problem for functions

$$\frac{h(y,x_1,\ldots,x_n)}{\prod_{i=1}^{m}\left[y-y_i(x_1,\ldots,x_n)\right]} \quad,$$

where h is infinitely often differentiable with respect to y and
increases together with the derivatives with respect to y at most
potentially while the y_i are continuous, increase at most potentially

and satisfy the conditions

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On canonical regularization...

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1) $Iy_1 \leq Iy_2 \leq \ldots \leq Iy_k \leq 0 \leq Iy_{k+1} \leq \ldots \leq Iy_m$

where k does not depend on $x_1, \ldots, x_n$, $0 \leq k \leq m$,

2) $|y_k - y_{k+1}| \geq C(1+|x|)^{\alpha}$

(1)

for a certain α, $C > 0$ and all x_i.

Let S_y be the space of functions $\varphi(x,y)$ given in the x,y-plane, infinitely often differentiable with respect to y, and for which for all n the right-hand side of

$$\|\varphi\|_n = \sup_{1 \leq i,j,k \leq n} (1+y^2)^i \int_{-\infty}^{\infty} (1+x^2)^j \left| \frac{\partial^k \varphi(x,y)}{\partial y^k} \right| dx$$

is finite. Let MS_y be the space of functions $h(x,y)$ which all have derivatives with respect to y and do not increase quicker than powers of $(|x|+|y|)$.

Let $p(y,x) = y^n + p_1(x)y^{n-1} + \ldots + p_n(x)$, where $p_i(x)$ are continuous, at most

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On canonical regularization...

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potentially increasing functions so that there exists a decomposition

$$p(y,x) = \prod_{i=1}^{n} \left[y - y_i(x) \right],$$ where $y_i(x)$ are also continuous and increase at

most potentially. The $y_i(x)$ are called roots of $p(y,x)$.

Definition: $p(y,x)$ belongs to the class G_y if its roots can be sub-
divided into two groups

$$y_1^+, y_2^+, \ldots, y_m^+; \quad y_{m+1}^-, y_{m+2}^-, \ldots, y_n^-$$

so that for all x:

1) $Iy_i^+(x) \geqslant 0 \quad (i=1,2,\ldots,m) \quad Iy_i^-(x) \leqslant 0 \quad (i=m+1,\ldots,n)$

2) $\left| y_i^+(x) - y_j^-(x) \right| > c(1+|x|)^\alpha$ for certain α, $c > 0$.

The author considers the function

$$P_{n+1}(y, x) = \frac{y^n \ln y}{n!} \, [y - y_1, \, y - y_2, \ldots, y - y_n] = \cdots$$

$$= \frac{1}{n!} \sum_{i=1}^{n} \frac{(y - y_i)^n \ln(y - y_i)}{(y_i - y_1)\ldots\widehat{(y_i - y_i)}\ldots(y_i - y_n)} = \frac{1}{n!} \sum_{i=1}^{n} \frac{(y - y_i)^n \ln(y - y_i)}{A_i}, \qquad (2)$$

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