

PANKRATOV, S.A.

Combined resonances due to vibration of elastic rods subjected to longitudinal forces varying according to the bi-harmonic law, Nauch.dokl.vys.shkoly; stroi. no.2:5-16 '59.
(MIRA 13:4)

1. Rekomendovana kafedroy stroitel'nykh mashin Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V.Kuybysheva.
(Elastic rods and wires--Vibration)

PANKRATOV, S.A., doktor tekhn.nauk

Dynamic processes in the operation of excavators equipped with a dynamotor unit having a three-winding generator. Sbor.trud. MISI no.31:104-109 '60. (MIRA 14:3)

(Excavating machinery)

DOMBROVSKIY, N.G., doktor tekhn. nauk, prof.; PANKRATOV, S.A., doktor tekhn. nauk, prof.; VDOVENKO, Z.I., red. izd-va; GARNUKHIN, Ye.K., tekhn. red.

[Excavating machinery] Zemlerqinye mashiny. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam. Pt.1. [Bucket excavators] Odnokovshovye ekskavatory. 1961. 650 p.
(MIRA 14:10)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Dombrovskiy).
(Excavating machinery)

PANKHATOV, S.A., doktor tekhn.nauk

Using differential vibrators with twisting vibrations for
working frozen soils and hard rock. Stroi. i dor. mash. 6
no.5:13-15 My '61. (MIRA 14:6)
(Vibrators) (Earthwork)

PANKRATOV, S. A., doktor tekhn. nauk

Dynamic processes in the operation of machines for construction
and strip mining and comprehensive methods of studying them.
Sbor. trud. MISI no.39:166-180 '61. (MIRA 16:4)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni V. V.
Kuybysheva.

(Construction equipment—Testing)
(Strip mining—Equipment and supplies)

PANKRATOV, S.A., doktor tekhn.nauk

Protecting workers from vibrations. Mekh. stroi. 18 no.5:13-14
My '61. (MIRA 14:7)

1. Moskovskiy inzhenero-stroitel'nyy institut imeni Kuybysheva.
(Machine tools--Vibration)

PANKRATOV, S.A., doktor tekhn.nauk, prof., BOGUSLAVSKIY, P.Ye.,
kand. tekhn.nauk, retsenzent; SOKOLOVA, T.F., tekhn. red.;
UVAROVA, A.F., tekhn. red.

[Fundamentals of the design of main units of excavators and
cranes] Konstruktsiia i osnovy rascheta glavnykh uzlov ekskavatorov i kranov. Moskva, Mashgiz, 1962. 539 p.

(MIRA 15:10)

(Excavating machinery) (Cranes, derricks, etc.)

PANKRATOV, S.A., doktor tekhn. nauk, prof.

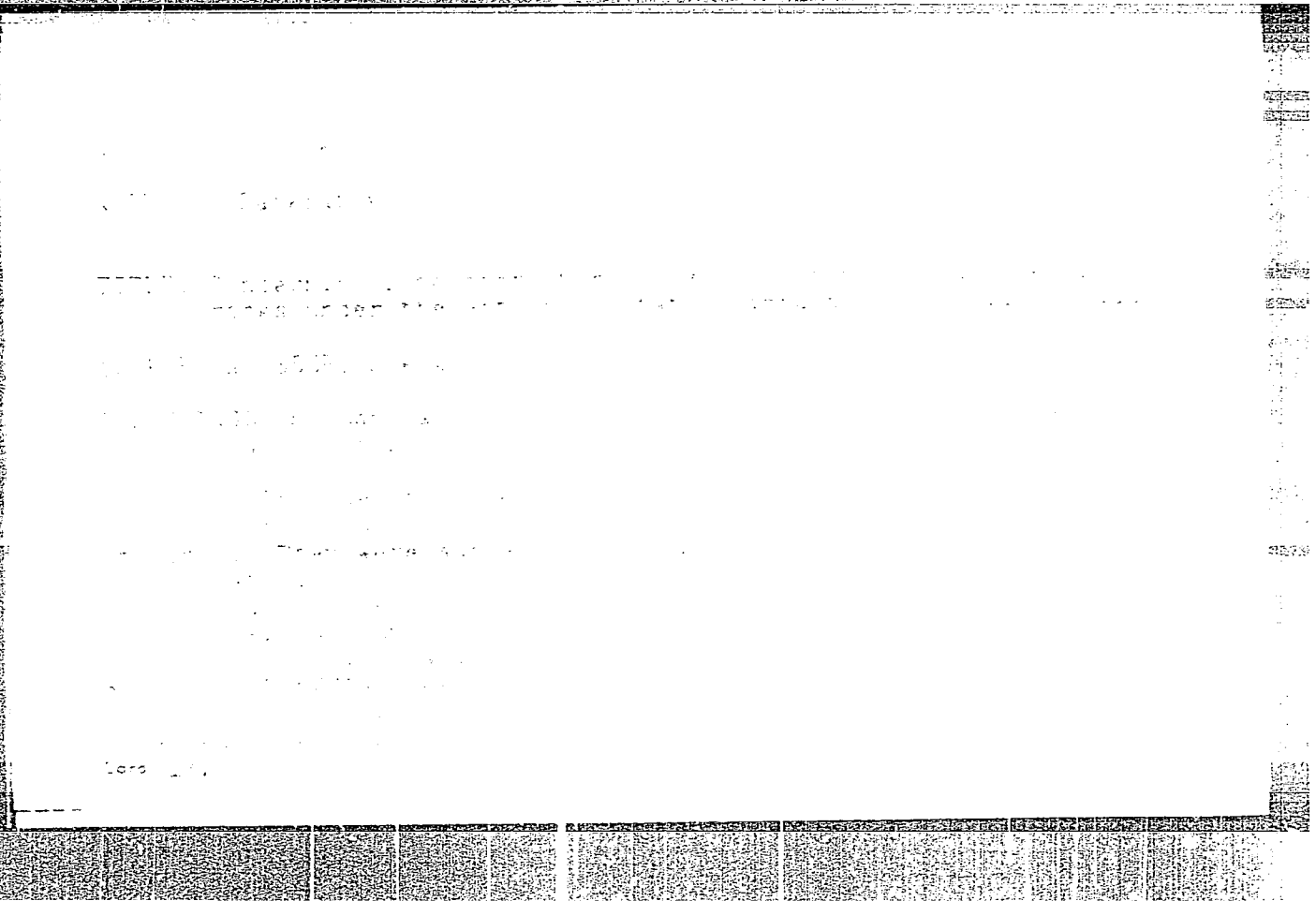
Determination of the pressure of ground and belt on roller
supports of belt conveyors. Vest. mashinostr. 43 no.7:33-
35 J1 '63. (MIRA 16:8)

(Conveying machinery--Testing)

ZENKOV, R.L., doktor tekhn. nauk; PANKRATOV, S.A., doktor tekhn. nauk, prof., retsenzent

[Mechanics of bulk freight; bases for designing loading and unloading and transporting equipment] Mekhanika nasyynykh gruzov; osnovaniia rascheta pogruzochno-razgruzochrykh i transportnykh ustroistv. Izd.2., ispr. i dop. Moskva, Mashinostroenie, 1964. 250 p.

(MIRA 17:9)



1. Name: [Illegible]

2. Date of Birth: [Illegible]

3. Place of Birth: [Illegible]

4. Education: [Illegible]

5. Occupation: [Illegible]

6. Political Party: [Illegible]

7. Military Service: [Illegible]

8. Awards: [Illegible]

9. Associations: None

10. Submitted: [Illegible]

11. [Illegible]

PANKRATOV, S. A. (Prof, Dr. Tech. Sci.)

"Problems of calculation of band conveyors for operational safety and service life."

"Peculiarities of dynamic calculation of boom design in dredges, cranes, and 'Abetzer' [gravel and rock remover?] in regard to cables and girders of great length."

"Some physical laws of rock crushing in crushers."

reports submitted for Intl Conv on Conveyor Engineering & Construction Machinery, Magdeburg, E. Germany, 7-12 Sep 64.

PANKRATOV, S.A., prof.; KELEN, O.I., inzh.

Approximate determination of stresses in a conveyor belt during starting and braking, taking into account the location of the driving drum. Izv. vys. ucheb. zav.; gor. zhur. 7 no.11:97-103 '64. (MIRA 18:3)

1. Universitet druzhby narodov imeni Patrisa Lumumby, Rekomendovana kafedroy konstruksii detaley, uzlov mashin i mekhanizmov.

MINNENKOV, S.A., prof.; TRAKHTMAN, V.B., ing.

Bending stresses in conveyor belts. Izv. vys. ucheb. zav.; gor.
zhur. 8 no.1:79-82 '65. (1965 18:3)

1. Universitet druzhby narodov imeni Patrisa Lumumby. Rekomendovana
kafedroy konstruksii detaley uzlov mashin i mekhanizmov.

PANKRATOV, S.A., prof.; KELEN, O.I., inzh.

Determining the frequency response of belt conveyor vibrations depending on the position of the driving drum. Izv.vys.ucheb.zav.;gor.zhur. 7
no.9:113-120 '64. (MIRA 18:1)

1. Universitet druzhby narodov imeni Patrisa Lumumby. Rekomendovana kafedroy konstruktivni detaley, uzlov mashin i mekhanizmov.

L 25662-65 EWT(m)/EWP(v)/EWP(j)/T IJP(c) WW/DJ/RM

ACC NR: AM5028686

Monograph

UR/

42
41
B+

Vatazhina, V. I. (Candidate of Technical Sciences); Muntz, V. O. (Candidate of Architecture); Pankratov, S. I. (Engineer); Gershkov, B. M. (Engineer); Sadagashvili, G. R. (Engineer)

Hermetic sealing materials for structural elements (Germetiziruyushchiye materialy dlya stroitel'nykh konstruktsey) Moscow, Stroyizdat, 65. 0146 p. illus., biblio. (At head of title: Gosudarstvennyy komitet po promyshlennosti stroitel'nykh materialov pri Gosstroye SSSR. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov) Errata slip inserted. 3,000 copies printed.

TOPIC TAGS: general construction, construction material, civil engineering, hermetic seal, synthetic material. structural plastic

PURPOSE AND COVERAGE: This book gives a survey of the development in the Soviet Union and abroad of the problem of hermetically sealed seams of external aggregate elements. All types of sealing materials used in construction are viewed. Engineering of the production of principle hermetic sealing materials used in large panel construction is also covered. The book presents means of applying the materials and technical characteristics of the apparatus and equipment necessary for mechanized application of hermetic of the seams of buildings and structures. Special attention is given to methods of testing hermetic seals and means of determining their water and air penetrability which permit inspection of materials in simulated working conditions. The book also gives data of comparative economic

UDC: 691.17:624.078

2

Card 1/2

L 25662-66

ACC NR: AM5028686

effectiveness in using hermetic sealing in large panel construction. This book is recommended for engineers and technicians in the industry of synthetic building materials, for workers of project organizations and building manufacturers.

TABLE OF CONTENTS (abridged):

Introduction	-3	
Ch. I. Work of jointed seams and hermetically sealing them		-10
Ch. II. Hermetic sealing materials	--20	
Ch. III. Technology of the production of hermetic seals for structures		-42
Ch. IV. Instruments for rheological and physical-mechanical testing of hermetic seals	--68	
Ch. V. Air and water penetrability of hermetic seals		-84
Ch. VI. Use of hermetic sealing materials	--99	
Ch. VII. Economics and effectiveness of <u>polymer hermetic sealing materials</u>		-127
Bibliography	--142	

SUB CODE: 11,13/ SUBM DATE: 13Mar65/ ORIG REF: 067/ UTH REF: 023

Card 2/2 dda

SHRAYMAN, L.I., inzh.; PANKRATOV, S.N., inzh.

Device for removing bits from boring bars. Shakht. stroi.
5 no. 1:26 Ja '61. (MIRA 14:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut organizatsii i
mekhanizatsii shakhtnogo stroitel'stva.
(Boring machinery)

PANKRATOV, S. P.,

"Data for the dynamic computation of band conveyors"

report to be submitted for the 4th Intl. Conference on Earthwork, Prague, Czech.,
9-15 Oct 63.

PANKRATOV, V. (g.Kotlas); YATCHENKO, F. (g.Kotlas)

Creation of protective forest belts on the Pechora rail-
road. Zhel.dor.transp. 36 no.5:71-73 My '55. (MIRA 12:5)

1. Glavnyy inzhener Pechorskoy dorogi (for Pankratov). 2. Nachel'-
nik otдела zashchitnykh lesonasazhdeniy Pechorskoy zheleznoy
dorogi (for Yatchenko).
(Russia, Northern--Railroads--Snow protection and removal)
(Russia, Northern--Windbreaks, shelterbelts, etc.)

VATAZHINA, V., kand. tekhn. nauk; KHOMENKO, Z., kand. tekhn. nauk;
PANKRATOV, V., inzh.; PANFEROVA, A., inzh.; POMANSKAYA, M.,
inzh.; DEMINA, Ye., inzh.

Modern joint-sealing materials in housing construction.
Zhil. stroi. no.9:5-6 '65. (MIRA 18:11)

VATAZHINA, V., kand.tekhn.nauk; PANKRATOV, V., inzh.

Sealing for joints of large-panel buildings. Na stroi. Ros. 4
no.5:26 My '63. (MIRA 16:5)
(Building--Details) (Polymers)

PANKRATOV, V.

Trade mark "700." Nauka i zhyttia 12 no.2:34-35 F '63.
(MIRA 16:4)

(Donets Basin--Cement)

PANKRATOV, V., inzh.

Using putty in house construction. Izobr.i rats. no.5 (201);
44-45 '63. (MIRA 16:7)

(Putty) (Building material:)

PANKRATOV, V.; MUSIN, B.

Application of liquid asphalt in concrete maintenance. Avt.dor.
22 no.7:11 J1 '59. (MIRA 12:9)
(Asphalt) (Pavements, Concrete)

PANKRATOV V.

PANKRATOV, V., podpolkovnik v zapase; PANKERMAN, I., podpolkovnik v zapase.

Immortal feats. Voen. znan. 33 no.12:6-7 D '57. (MIRA 11:1)
(World War, 1939-1945--Personal narratives)

PANKRATOV, V.

USSR

Chief, Dept. of Republic Highways of Chief Road Administration
of the Council of Ministers of Kazakh SSR.

Engineering.

On road construction & repairs.

Source: N; Kazakhstanskaya Pravda, Alma-Ata 4 June '47
Abstracted in USAF "Treasure Island" report No. 4220
on file in Library of Congress, Air information Division

PANKRATOV, V.A.

Organization of business accounting in the various shops of
the Vladimir Il'ich Plant. Vest.elektroprom. 27 no.5:17-19
My '56. (MLRA 9:12)

1. Zavod imeni Vladimira Il'icha.
(Electric machinery industry--Accounting)

ACCESSION NR: AP4010044

s/0062/64/000/001/0141/0148

AUTHOR: Korshak, V. V.; Vinogradova, S. V.; Pankratov, V. A.;
Baskakov, A. N.

TITLE: Polyesters with a hetero backbone. Report No. 54.
Synthesis and studies of new types of polyarylates based on phenyl-
bis-(4-oxyphenyl)methane and diphenyl-bis-(4-oxyphenyl)methane

SOURCE: AN SSSR. Izvestiya. Ser. khim., no. 1, 1964, 141-148

TOPIC TAGS: heterochain polyesters, polyarylates, phenyl-bis-(4-
oxyphenyl) methane, diphenyl-bis-(4-oxyphenyl) methane, diatomic
phenols, aromatic dicarboxylic acids, polymer thermostability,
polymer workability, polymer solubility, voluminous side substituents,
interphase polycondensation, equilibrium polycondensation, polymer
physical properties.

ABSTRACT: In the search for polymers with high thermal stability and
good workability, interphase or equilibrium polycondensation was car-
ried out for the synthesis of homogenous and mixed polyarylates based

Card 1/3

ACCESSION NR: AP4010044

on the title compounds, hydroquinone, diene and the acid chlorides of terephthalic and isophthalic acid in a high-boiling solvent. The presence of the thermostable phenyl ring in the backbone as well as on the macromolecular side branches in the end products also was expected to result in less packing of the backbone, thus better workability. Yields, viscosity in solution, softening point, break, and stretchability are graphed for some homogenous compounds, as well as solubility, thermomechanical properties and degree of crystallization for seven mixed polyarylates based on either of the title compounds and the acids, hydroquinone and diene. Interphase polycondensation yielded homogenous polyarylates whose pellicles had good elasticity and solubility. Equilibrium condensation yielded homogenous polyarylates with high thermostability and non-solubility. Mixed polyarylates with terephthalic acid were more heat-stable and less soluble than those with isophthalic acid. The softening point passed through a minimum upon addition of the title compounds. Both title compounds gave mixed polyarylates easily soluble in many organic solvents. The presence of voluminous phenyl side substituents

Card 2/3

ACCESSION NR: AP4010044

considerably decreased the degree of crystallinity of the polymers. Laboratory procedures are described. "In conclusion, the authors wish to thank the staff of the X-ray analysis laboratory headed by A. I. Kitaigorodski for providing the roentgenographic study of the polymers." Orig. art. has: 5 figures, 4 tables, 1 formula.

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR (Institute of Organoelemental Compounds, Academy of Sciences, SSSR); Moskovskiy khimiko-tekhnologicheskii institut im. D. I. Mandeleeva (Moscow Chemical-Technological Institute)

SUBMITTED: 20Aug62

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 000

Card 3/3

KORSHAK, V.V.; VINOGRADOVA, S.V.; PANKRATOV, V.A.

Effect of the structure of initial biphenols on the properties
of polyarylates. Dokl. AN SSSR 156 no. 4:880-883 Je '64.
(MIRA 17:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
2. CheIn-korrespondent AN SSSR (for Korshak).

ester

ABSTRACT: The purpose of this work was the preparation and study of polyarylates

strength up to 2500. They also showed good solubility in the common organic solvents.

[Faint, illegible text, possibly bleed-through from the reverse side of the page]

KORSHAK, V.V.; PAVLOVA, S.A.; TIMOFEYEVA, G.I.; VINGGRADOVA, S.V.; PANKRATOV, V.A.

Influence of the steric factor on the viscosimetric properties and polydispersity of polyarylates. Dokl. AN SSSR 160 no.1:119-122
Ja '65. (MIRA 18:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Korshak).

I 3398-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5024214

UR/0020/65/164/003/0563/0566

AUTHORS: Vinogradova, S. V.; Korshak, V. V. (Corresponding member AN SSSR);
Pankratov, V. A.; Tur, D. R.TITLE: Investigation of the kinetics of polycondensation of bisphenols with the
acid chloride of terephthalic acid

SOURCE: AN SSSR. Doklady, v. 164, no. 3, 1965, 563-566

TOPIC TAGS: polycondensation, terephthalic acid, bisphenol, organic compound,
polymer

ABSTRACT: The kinetics of the polycondensation of bis-(4-oxyphenyl)-methane, 2,2-bis-(4-oxyphenyl) propane, 2,2-bis-(4-oxyphenyl)-hexafluoropropane, bis-(4-oxyphenyl)-phenylmethane, 2,2-bis-(4-oxyphenyl)-2-phenylethane, bis-(4-oxyphenyl) trifluoromethylphenylmethane, and bis-(4-oxyphenyl)-diphenylmethane with the acid chloride of terephthalic acid in the temperature region from 160-200C was investigated. The purpose of the investigation was the determination of the influence of the nature of substituents at the central carbon atom of bisphenols on the reactivity of the latter. The reactions were carried out in ditoluyll methane in a

Card 1/3

L 3398-66

ACCESSION NR: AP5024214

3

current of dry oxygen-free nitrogen. The experimental results are shown graphically (see Fig. 1 on the Enclosure). Energies of activation and frequency factors derived from Arrhenius' plots are tabulated. A reaction mechanism is proposed. It is concluded that the reactions studied belong to the slow class of bimolecular reactions. Orig. art. has: 2 tables, 3 graphs, and 2 formulas.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy, Akademii nauk SSSR
(Institute for Heteroorganic Compounds, Academy of Sciences, SSSR) 44, 55

SUBMITTED: 22Mar65

ENCL: 01

SUB CODE: OC, G-C

NO REF SOV: 002

OTHER: 000

Card 2/3

L 3398-66

ACCESSION NR: AP5024214

ENCLOSURE: 01

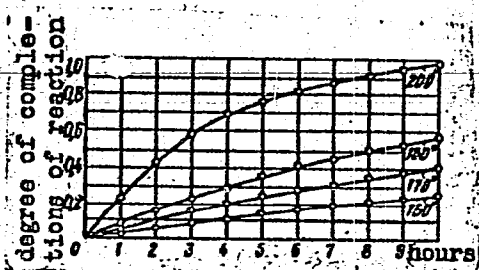


Fig. 1. The dependence of degree of completion of reaction on the duration of polycondensation of the acid chloride of terephthalic acid with bis-(4-oxyphenyl)diphenylmethane

Card 3/3 *hid*

L 01046-66 EWG(j)/EWT(m)/EFF(c)/EWP(j)/T/EWA(h)/EWA(1) WW/RM

ACCESSION NR: AP5019781

UR/0062/65/000/007/1286/1288
541.6+539.238

AUTHOR: Pankratov, V. A.^{44,55}; Korshak, V. V.^{44,55}; Vinogradova, S. V.^{44,56}

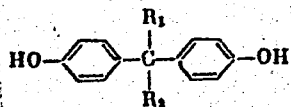
40
36
B7

TITLE: Synthesis of polyaryl esters of 2',7'-dihydroxySpiro[fluorene-9,9'-xanthene]

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 7, 1965, 1285-1288

TOPIC TAGS: polyaryl ester, heat resistant polymer, solubility

ABSTRACT: Homo- and co-polymeric polyaryl esters based on 2',7'-dihydroxySpiro[fluorene-9,9'-xanthene] have been prepared in an attempt to produce polyaryl esters having both heat resistance and good solubility in common organic solvents, and hence, better processability. The other reactants were terephthalic and/or isophthalic chloride and various bisphenols of the type

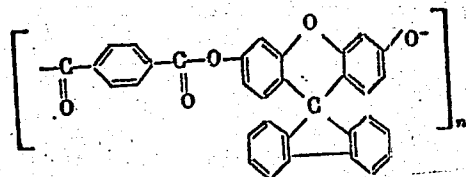


Card 1/2

L 01046-66

ACCESSION NR: AP5019781

(where R₁ and R₂ are aliphatic, perfluorinated, and aromatic substituents) as well as hydroquinone and resorcinol. The polymers and copolymers had high softening points (320—370C) and good solubility in tricresol, tetrahydrofuran, and chlorinated hydrocarbons. The presence in the polymer repeat unit



of stable aromatic systems increases their thermal stability and suggests that they will also exhibit high radiation resistance. ⁵ Orig. art. has: 1 table and 3 formulas. [SM]

ASSOCIATION: Institut elementoorganicheskikh sovedineniy Akademii nauk SSSR (Institute of Organoelemental Compounds, Academy of Sciences, SSSR)

SUBMITTED: 30Oct64
NO REF SOV: 005
Card 2/2 *BP*

ENCL: 00
OTHER: 002

44.55
SUB CODE: OC,GC
ATD PRESS: 4068

TITLE: A method for obtaining polyarylates. | Class 39, No. 170662

ASSOCIATION: none

L 3785-66 EWT(m)/EPF(c)/EWP(j)/T/EWA(c) RPL WW/RM

ACCESSION NR: AP5025510

UR/0062/65/000/009/1649/1654

541.6+661.723-16

AUTHOR: ^{44.55} Korshak, V. V.; ^{44.55} Vinogradova, S. V.; ^{44.55} Pankratov, V. A.

TITLE: Heterochain polyesters. 56. Fluorinated polyarylates ^{44.55}

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 9, 1965, 1649-1654

TOPIC TAGS: polymer, fluorinated polymer, polyester, polyarylate

ABSTRACT: The purpose of this work was to prepare homo- and heteropolyarylates from 2,2-bis-(4-hydroxyphenyl)-1,1,1,3,3,3-hexafluoropropane / 2,2-bis-(4-hydroxyphenyl)-1,1,1-trifluoro-2-phenylethane with terephthalic, isophthalic, perfluoro-adipic, and perfluorosebacic acids, and to investigate the properties of the polymers obtained. It was found that replacement of the methyl group at the central carbon atom of the diphenols by a trifluoromethyl group lowers the softening temperature of the homo- and heteropolyarylates obtained from them. Condensation of ω,ω,ω -trifluoroacetophenone with phenol yielded 2,2-bis-(4-hydroxyphenyl)-1,1,1-trifluoro-

Card 1/2

L 3785-66

ACCESSION NR: AP5025510

2-phenylethane. The characteristics of the polyarylates obtained are given in tabular form. Orig. art. has: 2 tables. [VS]

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Heteroorganic Compounds, Academy of Sciences, SSSR); Khimiko-tekhnologicheskii institut im. D. I. Mendeleeva (Chemical Technology Institute)

SUBMITTED: 02Jul63

ENCL: 00

SUB CODE: MT, OC, GC

NO REF SOV: 010

OTHER: 009

ATD PRESS: 4/18

cc
Card 2/2

KORSHAK, V.V.; PAVLOVA, S.A.; TIMOFEYeva, G.I.; VINOGRADOVA, S.V.;
PANKRATOV, V.A.

Effect of the method of preparation and of the size of the
side chain radical on the viscosometric properties of
polyarylates. Vysokom.soed. 7 no.10:1679-1683 0 '65.
(MIRA 18:11)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

L 3938-66 ENT(m)/EPF(c)/ENP(j)/T RM

ACCESSION NR: AP5025956

UR/0190/65/007/010/1689/1692

541.64+678,674

AUTHOR: Korshak, V. V.; Vinogradova, S. V.; Pankratov, V. A.

TITLE: Synthesis and investigation of polyarylates from 4,4'-biphenyldicarboxylic acid and diphenols with various substituents at the central carbon atom

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 10, 1965, 1689-1692

TOPIC TAGS: polyester, plastic, polyarylate

ABSTRACT: In the course of continuing investigations of polyesters, a series of polyarylates were prepared from bis-(4-hydroxyphenyl)methane, 2,2-bis-(4-hydroxyphenyl)propane, 2,2-bis-(4-hydroxyphenyl)hexafluoropropane, bis-(4-hydroxyphenyl)phenylmethane, bis-(4-hydroxyphenyl)methylphenylmethane, bis-(4-hydroxyphenyl)trifluoromethylphenylmethane, bis-(4-hydroxyphenyl)diphenylmethane, 9,9-bis-(4-hydroxyphenyl)fluorene, and 4,4'-biphenyldicarboxylic acid. It was found that the physical properties of the polyarylates obtained depend to a large extent on the nature of the substituent at the central carbon atom. The physical constants and the mechanical characteristics of the polyarylates are given in tabular form. Orig. art. has: 2 tables. [VS]

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Heteroorganic Compounds, AN SSSR)

Card 1/2

L 3938-56

ACCESSION NR: AP5025956

SUBMITTED: 02Nov64

NO REF SOV: 009

ENCL: 00

OTHER: 001

0
SUB CODE: MI, OC, GC

ATD PRESS: 4118

Card 2/2

DP

L 3936-66 EWT(m)/EPF(e)/EWP(j)/T/ETC(m) RPL WW/RM

ACCESSION NR: AP5025968

UR/0190/65/007/010/1813/1817
678.01:54+678.67

AUTHOR: Korshak, V. V.; Manucharova, I. F.; Vinogradova, S. V.; Pankratov, V. A.

TITLE: Investigation of the thermal stability of a series of polyarylates by differential thermal analysis

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 10, 1965, 1813-1817

TOPIC TAGS: polyarylate, plastic, polymer, thermal stability

ABSTRACT: Polyarylates were prepared from diphenols and terephthalic acid and subjected to differential thermal analysis utilizing thermogravimetric methods. It was found that the nature of the substituent at the central carbon of the diphenol (of the di-p-hydroxyphenylmethane type) exerts an appreciable influence on the thermal stability of the polyarylate. Thus, e.g., replacement of methyl groups at the central carbon atom by trifluoromethyl groups improves the stability of the polyarylate. The temperatures of incipient decomposition of the polyarylates investigated ranged from 375 to 465C. The most thermally stable polyarylate was obtained from 9,9-bis-(4-hydroxyphenyl)fluorene and terephthalic acid. Orig. art. has: 2 tables and 5 figures. [VS]

Card 1/2

L 3936-66

ACCESSION NR: AP5025968

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Heteroorganic Compounds, AN SSSR); Institut obshchey i neorganicheskoy khimii AN SSSR (Institute of General and Inorganic Chemistry, AN SSSR)

SUBMITTED: 26Nov64

ENCL: 00

4455 6
SUB CODE: MT, OC, GC, TD

NO REF SOV: 011

OTHER: 000

4455
ATD PRESS: 4118

Card 2/2 DP

L 2925-66 ENT(m)/EPF(c)/ENP(j)/T/ETC(m) WW/BM

ACCESSION NR: AP5022610

UR/0190/65/007/009/161h/1618
678.01:5h+678.67h

AUTHORS: Rode, V. V.; Zhuravleva, I. V.; Rafikov, S. R.; Korshak, V. V.;
Vinogradova, S. V.; Pankratov, V. A.

TITLE: The high temperature degradation of polydihydroxydiphenylfluorene-
phthalate. 24th communication in the series "Chemical Transformation of Polymers"

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 9, 1965, 161h-1618

TOPIC TAGS: thermal degradation, thermal oxidation, organic compound, polymer/
D 9 polyarylate

ABSTRACT: The thermal degradation and thermooxidation of polyarylate D-9 was
investigated. This investigation is an extension of the previously published
work of I. V. Zhuravleva, V. V. Rode, and S. R. Rafikov (Izv. AN SSSR, ser. Khim.,
1965, 269). The thermal degradation and thermooxidation were carried out over
the temperature region from 325 to 500C by 25C intervals. Graphs for the kinetics
of gas evolution during degradation and thermooxidation are presented. The
composition of the thermooxidation-degradation products are tabulated. The

Card 1/2

L 2925-66

ACCESSION NR: AP5022610

5

experimental results obtained for the thermooxidation in air are shown graphically in Fig. 1 on the Enclosure. It is concluded that the thermooxidation degradation of polyarylate D-9¹ proceeds via a homolytic chain rupture accompanied by the evolution of CO₂, CO, and H₂ gases. No induction period for the thermooxidation was observed. Orig. art. hñs: 2 tables and 6 graphs.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute for Heteroorganic Compounds, AN SSSR)

SUBMITTED: 23 Oct 64

44,55
ENCL: 01

SUB CODE: 00

NO REF SOV: 003

OTHER: 000

Card 2/2

KORSHAK, V.V.; MANUCHAROVA, I.F.; VINOGRADOVA, S.V.; PANKRATOV, V.A.

Investigation of the thermal stability of a number of poly-
arylates by differential thermal analysis. Vysokom. soed. 7
no.10:1813-1817 0 '65. (MIRA 18:11)

1. Institut elementoorganicheskikh soedineniy AN SSSR i
Institut obshchey i neorganicheskoy khimii AN SSSR.

PROVINTEYEV, I.V.; BURLACHENKO, P.Ye. [deceased]; VATAZHINA, V.I.;
PANKRATOV, V.F.; ZAYCHIKOVA, E.A., red. izd-va; MOCHALINA,
Z.S., tekhn. red.

[Waterproofing, roofing and sealing materials] Hidroizo-
liatsionnye, krovel'nye i germetiziruiushchie materialy.
Moskva, Gosstroizdat, 1963. 230 p. (MIRA 16:6)
(Building materials)

VATAZHINA, V.I., kand. tekhn. nauk; MUNTS, V.O., kand. arkh.;
PANKRATOV, V.F., inzh.; VOSKOBOYNIKOVA, S.I., inzh.;
GERSHKOVICH, B.M., inzh.; SADAGASHVILI, G.R., inzh.

[Hermetic sealing materials for structural elements]
Germetiziruiushchie materialy dlia stroitel'nykh kon-
struktsii. Moskva, Stroiizdat, 1965. 146 p.
(MIRA 18:7)

PROVINTEYEV, I. V., kand. tekhn. nauk; PANKRATOV, V. F., inzh.

Technology of the production of colored two-layer polymer-bituminous tiles. Sbor. trud. VNIINSM no.5:29-37 '61.
(MIRA 15:10)

(Tiles)

PANKRATOV, V.P.

Hermetic sealing of butt joints. Inform. bzul. VDVNEN no. 9:
16-17 S '64. (MIRA 17:12)

1. Zamestitel' rukovoditelya laboratorii Vsesoyuznogo nauchno-
issledovatel'skogo instituta novykh stroitel'nykh materialov.

VATAZHINA, V.I., kand. tekhn. nauk; PANKRATOV, V.F., inzh.

Sealing materials for large-panel construction. Sbor. trud.
VNIINSM no.7:41-47 '63. (MIRA 17:11)

BURLACHENKO, P.Ye., kand.khimicheskikh nauk; PANKRATOV, V.F., inzh.

Materials for sealing joints in large-panel construction. Stroi.
mat. 8 no.3:5-7 Mr '62. (MIRA 15:8)
(Cements, Adhesive)

MOROZOV, N.V., kand. tekhn. nauk; MKRTUMYAN, A.K., kand. tekhn. nauk; ANTIPOV, T.P., arkh.; KOCHESHKOV, V.G., inzh.; LISAGOR, I.A., inzh.; TSAPLEV, N.N., inzh.; IVASHKOVA, V.K., kand. tekhn. nauk; SHIKUNOV, I.Ya., inzh.; FILIN, Yu.D., inzh.; MOSTAKOV, V.I.; BURLACHENKO, P.Ye., kand. khim. nauk [deceased]; PANKRATOV, V.F., inzh.; RUBANENKO, B.R., glav. red.; ROZANOV, N.P., zam. glav. red.; ONUPRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.; POLUBNEVA, V.I., red.

[Ways of improving design details for the seams of exterior wall slabs] Puti uluchsheniia konstruktivnykh reshenii stykov panelei naruzhnykh sten. Moskva, TSentr. biuro tekhn. informatsii i nauchno-issl. in-ta organizatsii, mekhanizatsii i tekhn. pomoshchi stroit., 1962. 78 p. (MIRA 16:8)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut industrial'nykh zhilykh i mas-sovykh kul'turno-bytovykh zdanii (for TSaplev).
2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR; Perovo (for Mostakov).
3. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR (for Pankratov).

(Walla)

YEVSTAF'YEV, G.N., otv. red.; MAYEVSKIY, I.V., red.; MASLOVA, N.S., red.;
PANKRATOV, V.G., red.; KHOMYAKOV, A.I., red. izd-va; UL'YANOVA, O.G.,
tekhn. red.

[Labor productivity and production costs in industry] Proizvoditel'-
nost' truda i sebestoimosti produktsii v promyshlennosti. Moskva,
Izd-vo Akad. nauk SSSR, 1961. 335 p. (MIRA 14:11)

1. Akademiya nauk SSSR, Institut ekonomiki.
(Labor productivity) (Costs, Industrial)

PANKRATOV, V.I.; PRILIPKO, I.T.

Electrodynamic capacitor-modulator of weak direct currents.

Izm. tekhn. no.12:30-32 D '63.

(MIRA 16:12)

PANKRATOV, V.I.; PRILIPKO, I.T.

Contactless automatic beta-ray gage. Bum. prom. 33 no. 7:11-14
J1 '58. (MIRA 11:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut tsellyuloznoy
i bumazhnoy promyshlennosti.

(Beta rays--Industrial applications)
(Paper)

~~PANKRATOV, Y.I., inzhener; SHCHERBA, N.V.~~

Using black crushed stone on Central Asian roads. Avt.
dor. 19 no.6:32 Je '56. (MLRA 9:9)

(Soviet Central Asia--Road construction)

USSR/Engineering - Hydraulics, Dams
Protection of the Upstream Slopes of Earth Dams

Apr 52

Protection of the Upstream Slopes of Earth Dams
Against Wave Action, " V. K. Pankratov, Engr

"Gidrotekh i Melio" No 4, pp 38-43

Describes experimentally developed construction of floating breakwater which has following features: submerged portion does not exceed wave height; ab- sence of parts above water decreases pressure stress on structure and consequently lowers breakwater waves on structure and consequently lowers breakwater in anchors, facilitating fastening of breakwater to bottom of reservoir; wooden structure has

2122150

longer life being completely submerged in water; double-anchor fastening system decreases mobility of breakwater to a minimum, simplifying junction of its sections; cost is only 1/2 to 1/3 of that required for slope protection with stone pavement.

2122150

PANKRATOV, V. K.

BUDNIKOV, P.P., akademik; KRYLOV, V.F., kand.tekhn.nauk; PANKRATOV, V.L.,
inzh.; ZLODEYEVA, V.S., inzh.

Using water and a trough to granulate blast-furnace slag.
Stroi.mat. 8 no.7:30-34 JI '62. (MIRA 15:8)
(Slag)

BUDNIKOV, P.P.; PANKRATOV, V.L.; KEVESH, Ye.P.

Reactivity and hydraulic activity of slag glass. Dokl. AN SSSR
146 no.2:415-417 S '62. (MIRA 15:9)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy
institut tsementnoy promyshlennosti.
(Slag) (Glass)

BUDNIKOV, P.P.; PANKRATOV, VI.

Hydraulic activity of certain crystalline and vitreous phases of
blast-furnace slags. Dokl. AN SSSR 146 no.1:156-199 S '62.

(MIRA 15:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut tsementnoy
promyshlennosti. 2. Chlen-korrespondent AN SSSR (for Budnikov).
(Slag)

VOLKONSKIY, B.V., kand. tekhn. nauk; PANKRATOV, V.L., kand. tekhn. nauk

Reviews and bibliography. TSement 30 no.4:24- p.3 of cover J1-Ag '64.
(MIRA 17:11)

KRYLOV, V.F., kand.tekhn.nauk; PANKRATOV, V.L., inzh.; ZLODEYEVA, V.S., inzh.

Hydraulic impact and launder classifier methods of granulating
blast furnace slags. Stal' 22 no.9:786-788 § '62. (MIRA 15:11)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy institut
tsementnoy promyshlennosti i Yuzhnyy nauchno-issledovatel'skiy
institut po stroitel'stvu.

(Slag)

BUDNIKOV, P.P., akademik; PANKRATOV, V.L., inzh.

Hydraulic activity of monocalcium silicate and helenite.
Nauch. soob. NIISementa no.11:28-32 '61. (MIRA 15:2)

1. AN USSR (for Budnikov).
(Slag)

15 32 00 only 3109, 3309

29431
S/081/61/000/017/086/166
B101/B102

AUTHORS: Kholin, I. I., Pankratov, V. L.

TITLE: Production of aluminosilicate cement, and investigation of its structural and technical properties

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 352, abstract 17K345 (Nauchn. soobshch. Gos. Vses. n.-i. in-t sement. prom-sti, no. 5(36), 1959, 18 - 27)

TEXT: The possibility of obtaining self-crumbling aluminosilicate cement of high initial strength in addition to standard cast iron in blast-furnace smelting of iron ore is confirmed. Such a cement of optimum composition has a specific surface of 1000 - 1600 cm²/g. Addition of 30% of gypsum (bihydrate) to aluminosilicate cement increases its hydraulic activity substantially and makes it possible to attain a quality of 400 - 500. Aluminosilicate cement ground to a specific surface of 3000 cm²/g has an activity of 400 - 500 kg/cm² and a high initial strength. Non-ground aluminosilicate can be used in civil and industrial overground construction, ground cement in the manufacture of concrete and reinforced-concrete pro-
Card 1/2 X

29431

S/C81/61/000/017/086/166
B101/B102

Production of aluminosilicate...

ducts, and cement with an addition of gypsum in underground construction.
[Abstracter's note: Complete translation.]

J

Card 2/2

PANKRATOV, V.L.
KRYLOV, V.F., kand. tekhn. nauk; PANKRATOV, V.L., inzh.

Formation of filaments during moist granulation of blast furnace
slags and methods for reducing such formation. Trudy NIISement
no.10:56-67 '57. (MIRA 10:12)
(Slag cement)

BRILL¹, O.D.; PANKRATOV, V.M.; RUDAKOV, V.P.; RYBAKOV, B.V.

Cross sections of the reactions $T(d, n)He^4$ and $D(d, n)He^3$
in the 3 - 19 Mev. deuteron energy range. Atom. energ. 16
no.2:141-143 F '64. (MIRA 17:3)

ПАНКРАТОВ, В.М.

"Excitation Functions for the Reactions $Mg^{24}(d,\alpha)Na^{22}$, $Fe^{54}(d,\alpha)Mn^{52}$, $Fe^{54}(d,n)Co^{55}$, and $Zn^{66}(d,2n)Ga^{66}$," by N. A. Vlasov, S. P. Kalinin, A. A. Ogloblin, V. M. Pankratov, V. P. Rudakov, I. N. Serikov, and V. A. Sidorov, Atomnaya Energiya, Vol 2, No 2, Feb 57, pp 169-171

This work describes experiments to determine the excitation curves for the reactions $Mg^{24}(d,\alpha)Na^{22}$, $Fe^{54}(d,\alpha)Mn^{52}$, $Fe^{54}(d,n)Co^{55}$, and $Zn^{66}(d,2n)Ga^{66}$. Cross section versus deuteron energy graphs are given for each of the four reactions.

The measurement apparatus and technique are explained.

No interpretation of the data is made. (U)

Sum. 1345

KALININ, S. P. and PANKRATOV, V. M.

"Fast Fission Cross-Sections."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sep 58.

KORSAK, V.V. [Korshak, V.V.] (Moskva); VINGRADOVA, S.V. (Moskva);
VALECKIJ, P.M. [Valetskiy, P.M.] (Moskva); JERSOVA, V.A.
[Yershova, V.A.] (Moskva); PANKRATOV, V.M. (Moskva)

Copolyarylates of isophthalic acid with dihydroxy-diphenyl-
propane and polyfunctional aliphatic alcohols. Chem prua
13 no.5:Supplement:Makromolekularni latky 13 no.5:265-270
'63.

ACCESSION NR: AT3012184

S/2963/63/000/005/0038/0057

AUTHORS: Rekhin, Ye. I.; Pankratov, V. M.; Krsheninnikov, I. S.

TITLE: Time interval to digital code converter

SOURCE: Mnogokanal'ny*ye izmeritel'ny*ye sistemy* v yadernoy fizike: Nauchno-tehnicheskiy sbornik. Moscow, no. 5, 1963, 38-57

TOPIC TAGS: time pulse converter, digital code readout, scaler circuit, pulse height analyzer, nanosecond interval converter, neutron analysis, time of flight analysis

ABSTRACT: The described converter for the transformation of a nanosecond time interval into a pulse train, is claimed to be original both in circuitry and in technical characteristics (overshoot, channel width stability, construction of constant delay line, etc.), and is intended for large scale commercial production. Nanosecond intervals can be measured with this instrument accurate to about 1%.

Card 1/4 ✓

ACCESSION NR: AT3012184

The operating principles and the characteristics of the circuit elements employed (oscillator, triggering univibrator, coincidence circuit) are described and the linearity of the transformation discussed. The measurement accuracy and the operating reliability are claimed to be superior to those of time-to-amplitude converters. Another advantage is that the data can be read-out directly in digital code, making the equipment usable not only in multichannel pulse-height analyzers, but as individual scaler circuits (with a 0.25 microsecond resolution time) and for the measurement of both short (1--255 nanoseconds) and long (0.25--65 microseconds) time intervals. The equipment is intended for the analysis of fast neutrons by the time-of-flight method. The neutron energy range from 0.5 to 30 MeV, corresponding to a transit time from 100 to 10 nanoseconds (for a base separation of about 1 meter) is covered by 256 conversion levels with a level width of 1 nanosecond. Orig. art. has: 12 figures and 13 formulas.

Card 2/4^v

BELEN, O. D.; VENIKOV, N. I.; KURASHOV, A. A.; OGLOBLIN, A. A.; PANKRATOV, V. M.;
ROZAKOV, B. P.

"Search for Light Neutron-Nuclei (i.e. dineutron, tetraneutron, n^6)."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi,
14-22 Feb 64.

Inst Atomic Energy, AS USSR

PANKRATOV, V. M.

AUTHOR: Pankratov, V. M.

89-3-26/30

TITLE: Fission in the Stripping Reaction (d,p) (Deleniye v reaktsii sryva (d,p))

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 3, pp. 321-323 (USSR)

ABSTRACT: At in the International Neutron Conference, in September 1957, Dzh. Nortrop and R. Kh. Stoks held lectures on the (d,pf)-reaction, from which extracts are reproduced here. A new ingenious method is proposed, of how the fission cross section of neutrons, which are captured by the target nucleus in the (d,p)-reaction, can be determined. This reaction is specially interesting as it permits an easy investigation of the excited states of the initial nucleus, which lie lower than the neutron combination energies. In other words, it is possible to examine states, which correspond to a negative energy of the free neutron, which cannot be achieved by the direct neutron capture. Now the experimental task consists in measuring the energy spectrum of the protons, which are in coincidence with the fission products only in cases, when the target of the material

Card 1/2

Fission in the Stripping Reaction (d,p)

89-3-26/30

to be split up is irradiated with monochromatic deuterons.

For the reactions $U^{238}(d, pf)$ and $U^{235}(d, pf)$ the curves for $\frac{\sigma(d, pf)}{\sigma(d, p)}$ in dependence of the proton energy are reproduced.

There are 2 figures and 1 reference, 0 of which is Slavic.

AVAILABLE: Library of Congress

1. Neutron fission cross section-Reaction Negative energy
2. Free neutrons

Card 2/2

PANKRATOV, V. P.

21. (c) PART I BOOK REPLICATION 807/2001

International Conference on the Peaceful Uses of Atomic Energy, 2d., Geneva, 1958

Library available in various fields (Reports of Soviet Scientists) Nuclear Physics) Moscow, Atomizdat, 1959. 552 p. (Serials: Das Tzshy, Vol. 3) 9,000 copies printed.

Mr. (This page) A.I. Alibonov, Academician V.I. Babler, Academician and E.A. Vlaser, Candidate of Physical and Mathematical Sciences; E. of this volume: S.I. Buzdar and S.P. Zarevskiy, Candidates of Physical and Mathematical Sciences; M. (Inside book) O.L. Anisimov, Acad. Sci. U.S.S.R. (Serials: Das Tzshy, Vol. 3)

PROCES. This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 4) papers presented by Soviet scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1958.

CONTENTS: It is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, and Part II contains 26 papers on nuclear physics, including problems of particle acceleration and of cosmic ray physics. The first paper by L.A. Artimovich presents a review of Soviet work on controlled thermonuclear reactions. The remaining papers in Part I deal with particular problems in this field.

Part II deals in detail with various problems in nuclear physics, such as the question of heavy atoms and their isotopes, and with the study of cosmic radiation by means of artificial earth satellites and probes, described in a paper by S.H. Fuzar. The Russian-language edition of the proceedings of the conference is published in 16 volumes. The first 6 volumes contain all the papers presented by Soviet scientists as follows: Volume (1), Introduction (Nuclear Physics); Volume (2), Neutrony (Nuclear Physics); Volume (3), Neutrony (Nuclear Physics); Volume (4), Neutrony (Nuclear Physics); Volume (5), Neutrony (Nuclear Physics); Volume (6), Neutrony (Nuclear Physics); Volume (7), Neutrony (Nuclear Physics); Volume (8), Neutrony (Nuclear Physics); Volume (9), Neutrony (Nuclear Physics); Volume (10), Neutrony (Nuclear Physics); Volume (11), Neutrony (Nuclear Physics); Volume (12), Neutrony (Nuclear Physics); Volume (13), Neutrony (Nuclear Physics); Volume (14), Neutrony (Nuclear Physics); Volume (15), Neutrony (Nuclear Physics); Volume (16), Neutrony (Nuclear Physics).

TABLE OF CONTENTS

Reports of Soviet Scientists, Nuclear (cont.)	807/2001	
Neutrony, S.A. Spectrum of Fragments of Spontaneous Fission of Plutonium-240 (Report 203)		374
Soviet, V.P. High-energy Proton-induced Fission of Silver Nuclei (Report 202)		379
Parasitites mentioned include Professor S.A. Knyazev, O.Y. Lezhkin, V.I. Gerasimov, and V.D. Kuvshinov.		
Malin, S.P., and V.M. Babler. Fission Cross Sections of Thorium-232 and Uranium-235 at Neutron Energy of 3 to 13 Mev. Russian Cross Sections of Uranium-235, Uranium-238, Plutonium-239, and Plutonium-239 With Neutron Energy of 3 to 6 Mev. (Report 204)		387
Andronov, N.P., P.M. Ivin, V.L. Gerasimov, E.E. Ivanov, L.M. Kuznetsov, V.K. Korotkiy, A.M. Boris, L.M. Korotkiy, and N.P. Kuznetsov. Neutron Cross Sections of Plutonium-239 and Uranium-235. (Report 205)		396
Parasitites mentioned include N. Mal'ev and N.E. Fedorovskiy.		

Cont 10/3

S/089/60/009/005/006/020
B006/B070

24.6720

AUTHORS: Pankratov, V. M., Vlasov, N. A., Rybakov, B. V.

TITLE: Fission Cross Sections of Th^{232} , U^{235} , Np^{237} and U^{238}
for Neutrons Having Energies of 10-22 Mev ¹⁹ ₁₉

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 5, pp. 399 - 401

TEXT: Measurements of fission cross sections for high-energy neutrons are communicated in this "Letter to the Editor". The neutron source was the reaction $\text{D}(d,n)\text{He}^3$; the analysis was made by the time-of-flight method, as it avoided some of the difficulties discussed in the introduction. The deuteron energies were varied from 6.5 to 19.5 Mev (E_n : 9.7 - 21.7 Mev) by means of platinum foils. The energy spread of the neutron was between 250 and 700 kev. All measurements were made at an angle of 0° to the deuteron beam. The fission events were recorded by means of a gas scintillation fission chamber (xenon) and a photo-multiplier of the type $\Phi\text{D}\gamma$ -33 (FEU-33). The pulses from the multiplier were fed into a multi-channel time-of-flight spectrometer. The results

Card 1/2

✓B

L 08381-67

ACC NR: AR6017638

SOURCE CODE: UR/0272/66/000/001/0170/0170

AUTHOR: Rekhin, Ye. I.; Lyaporov, V. M.; Pankratov, V. M.

40
3

TITLE: Conversion of microsecond time intervals into digital code

SOURCE: Ref. zh. Metrol. i izmerit. tekhn., Abs. 1.32.1297

REF SOURCE: Tr. Soyuzn. n.-i in-ta priborostr. vyp. 2, 1965, 38-56

TOPIC TAGS: analog digital converter, particle detector, electronic measurement

ABSTRACT: Converters for changing microsecond time intervals into digital code are designed for measuring the periods of time (time of flight) between some "zero" moment determined by a start signal and the moment of particle registration by a detector. Since these periods may be comparatively long (hundreds of μsec), beginning of measurement should be shifted along the time axis to coincide with the arrival of a "delayed" start signal. Delay is achieved by scaling of timer pulses. The start signal triggers the "clock", i. e. opens the switch of the timer pulse generator so that pulses are fed to the address unit. Channel width stability is maintained by using quartz frequency stabilization. It is preferable to have both fast and slow measurement conditions. Distributions are measured cyclically in either case. Under conditions of fast time analysis, the detector pulse blocks the input to which it is fed and the timer pulse output during the registration period after arrival of the de-

Card 1/2

UDC: 389:539.1.075:531.76

I 08381-67

ACC NR: AR6017638

layed start signal. Upon completion of registration, the address is corrected (supplemented) by the number of channel pulses transmitted during the blocking time, i. e. during the dead time τ_m . Under slow analysis conditions, the input switch is opened with arrival of the delayed start signal, and the detector signals are sent to an arithmetic unit. The next channel pulse closes the input switch after which counting and recording take place. The signal for termination of recording sets the number of the following channel in the address register and opens the converter input after a brief delay. Thus the information stored in the arithmetic unit before arrival of the next channel pulse will belong to the channel whose number is determined by the preceding cycle. The accuracy in measurement of time intervals is determined, and the effect of asynchronous and delayed start signals is described as well as synchronization of the signal detector, the effect of factors d_1-d_3 , the effect of instability in the fronts of the frequency divider and the effect of dead time. A description and characteristics are given for converters, phasing pulse generator, a circuit for shaping channel pulses and a conversion circuit. 1 illustration. Bibliography of 6 titles. [Translation of abstract]

SUB CODE: 09

Card 2/2 net

L 34780-66 EWT(m)

ACC NR: AR6017209

SOURCE CODE: UR/0058/65/000/012/A036/A037

AUTHORS: Kurashov, A. A.; Pankratov, V. M.; Perov, P. Ye.

TITLE: Electronic devices for a two-dimensional time-of-flight spectrometer for fast
nuclear particles

SOURCE: Ref. zh. Fizika, Abs. 12A343

REF SOURCE: Tr. 6-y Nauchno-tekhn. konferentsii po yadern. radioelektron. T. 2. M.,
Atomizdat, 1965, 125-135

TOPIC TAGS: nuclear radiation spectrometer, spectrum analysis, electronic component

ABSTRACT: The article describes briefly a two-dimensional time-of-flight spectrom-
eter for fast nuclear particles. This spectrometer is constructed on the basis of the
time analyzer of the fast-neutron spectrometer of the IAE cyclotron laboratory. The
time analyzer operates on the "vernier" principle. The resolving time of the two-
dimensional spectrometer is ~ 3 nsec in each arm. The channel width is 0.65 -- 2 nsec.
The maximum possible number of channels is 1023. The spectrometer records the ob-
tained information directly on a paper chart with the aid of a type PL perforator.
The registration speed reaches 5 correlated events per second. A detailed description
of the electronic devices that ensure sequential operation of the individual units of
the spectrometer is presented. L. S. [Translation of abstract].

SUB CODE: 09/ 20

Card 1/1 *fv*

ACC NR: AR6018963

SOURCE CODE: UR/0271/66/000/002/A019/A020

AUTHOR: Rekhin, Ye. I.; Lyaporov, V. M.; Pankratov, V. M.

TITLE: Conversion of microsecond time intervals into a digital code

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs- 2A133

REF SOURCE: Tr. Soyuzn. n.-i in-ta priborostr., vyp. 2, 1965, 38-56

TOPIC TAGS: multichannel analyzer, time interval counter, time measurement, analog, digital converter

ABSTRACT: The microsecond time interval to digital code converters are intended for measuring time intervals (flight transit time) between a certain initial time "zero" corresponding to a start signal and the time when a particle is registered by a detector. Since these intervals may be long (hundreds of milliseconds) it is expedient to shift the measurement start time along the time axis so that it coincides with the arrival of the "delayed" start signal. The time delay is implemented by the pulse counting method. The start signal starts the "clock," i.e., opens the gate between the pulse generator and the counter. The pulse generator uses a quartz crystal for frequency stabilization. It is expedient to have two measurement modes: fast and slow. In the fast time analysis mode the detector pulse after the arrival of the delayed start signal blocks the input at which it enters for the duration of registration. The timing pulse output is also blocked at this time. At the end of the

Card 1/2

UDC: 62-52:681.142.621

ACC NR: AR6018963

registration the address is updated (complemented) by the number of pulses which were passed when the input was blocked. In the slow time analysis mode the input gate is opened with the arrival of the delayed start signal at which time the detector signals are applied to the arithmetic unit. The next pulse in line shuts the input gate. The read and write operations are executed next. The "end of write" signal determines the number of the succeeding channel in the address register and after a short delay opens the converter input. Thus, the information stored in the arithmetic unit, until the arrival of the succeeding pulse, belongs to the channel whose number is determined by the previous cycle. The accuracy of the time interval measurements is determined. The effect of asynchronism between the starting and the delayed starting signals is described along with the effect of frequency divider jitter, detector synchronization, and blocking. The description and the characteristics of the converter, phasing pulse generator, and channel pulse shaper circuits are given. [Translation of abstract] 11 illustrations and bibliography of 6 titles. N. Z.

SUB CODE: 09

Card 2/2

ACC NR: AP6013512

UR/0120/66/000/002/0123/0128

AUTHOR: Berkovskiy, A.G.; Gusel'nikov, V.G.; Pankratov, V.M.

ORG: Moscow Electric Lamp Works (Moskovskiy oloktrolampovyy zavod)

TITLE: Photoelectric multipliers with large diameter cathodes and a toroidal multiplication system

SOURCE: Pribory i tekhnika eksperimenta, no. 2, 1966, 123-128

TOPIC TAGS: photomultiplier,
toroidal multiplier photomultiplier, photomultiplier design/FEU-65
photomultiplier, FEU-63 photomultiplier

ABSTRACT: Design features and performance characteristics of improved photomultipliers are discussed. These photomultipliers, with large cathode diameters and toroidal shape multiplication systems are represented by the recently introduced production models FEU-63 (cathode dia. 100 mm) and FEU-65 (cathode diameter 150 mm). Design approach, constructional details, characteristics and results of tests are presented. The toroidally shaped multiplication system comprises emitters, potential shaping surfaces etc, generated by rotation of suitable profiles around the enclosure axis. With the electrostatic system of focusing used, this approach has the advantages of 1) large working surface, 2) absence of sharp corners and edges generating dark autoelectronic currents; 3) absence of electron dissipation 4) absence of structural members in the electron path 5) rigidity and 6) a large area of the diaphragm entrance. During the design stage, the emitter and screen profiles were modeled in an electrolytic analog bath and on electronic trajectograph. The cathode integral sensitivity is around 40 - 55 $\mu\text{a}/\text{lu}$. The maximum dark currents at an anode sensitivity of 1000 a/lm

Card 1/2

UDC: 621.383.533

ACC NR: AP6013512

are 50 - 100 μ a. Uncertainties in thru-flight time were under 1 nsec. The time resolution for two tested FEU-65's was 3 nsec. The very good performance of these photomultipliers permits their use in certain nuclear physics research projects. They have a high time resolving power (several nanoseconds), a high amplification factor (around 10^8), and a wide range of output signal linearity (up to 1 a). Orig. art. has 6 figures and 1 table.

SUB CODE: 09 / SUBM DATE: 12Mar65 / ORIG REF: 005 / OTH REF: 002

Card 2/2

L 4058-66 EWT(d)/EWP(1) IJP(c) BB/GG

ACCESSION NR: AT5024112

UR/3157/64/000/099/0001/0019
681.142.621

AUTHOR: ⁴⁴Rekhn, Ye. I.; ⁴⁴Lyaporov, V. M.; ⁴⁴Pankratov, V. M.

46
39
B+1

TITLE: Conversion of microsecond time intervals into digital code

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Doklady, no. 99, 1964. Preobrazovaniye mikrosekundnykh intervalov vremeni v tsifrovoy kod, 1-19

TOPIC TAGS: ^{16, 44}analog digital converter, time interval counter, time measurement, electronic measurement

ABSTRACT: The authors discuss converters designed for measuring the time interval (transit time) between some "zero" time determined by the starting signal and the time when the detector records a particle. Accuracy in the measurement of such time intervals is analyzed with respect to factors which may cause nonlinearity in the converter. Converter characteristics are discussed and a block diagram of a converter is given. A brief description is given of a converter consisting of three functional circuits: phasing pulse generator, channel pulse shaper and converter.

Card 1/2

L 4058-66

ACCESSION NR: AT5024112

The various components which make up these sections are described and their important parameters are given. The author is grateful to L. S. Gorn for his careful examination of the manuscript. Orig. art. has: 11 figures, 29 formulas. *20*

ASSOCIATION: none

SUBMITTED: 06Jul64

ENCL: 00

SUB CODE: DP, EC

NO REF SOV: 002

OTHER: 004

Card 2/2 *20*

ACCESSION NR: AR4040816

S/0058/64/000/005/A040/A040

SOURCE: Ref. zh. Fizika, Abs. 5A325

AUTHOR: Pankratov, V. M.

TITLE: Gas scintillation counters and their application for measurement of fission cross sections by neutrons with an energy of 3 - 37 mev

CITED SOURCE: Sb. Stsintillyatory* i stsintillyats. materialy*. Khar'kov, Khar'kovsk. un-t, 1963, 182-186

TOPIC TAGS: gas scintillation counter, scintillation counter, fission fragment measurement

TRANSLATION: There is given a short description of a gas scintillation counter intended for registration of fission fragments. The counter is a spherical chamber 10 centimeters in diameter with a round glass window to which, with the help of a light guide, is attached a photoelectric multiplier. On the inner surface of the hemisphere, opposite the window, there is a layer of fissionable material with a

Card 1/2

REKHIN, Ye.I.; PANKRATOV, V.M.; KRASHENINNIKOV, I.S.

Converter of time intervals to digital code. Mnogokan. izm. sist.
v iad. fiz. no.5:38-57 '63. (MIRA 16:12)

PANKRATOV, V.M.; SERIKOV, I.N.

(He^3, α) reaction on C^{12} and Mg^{24} nuclei. Zhur. eksp. i teor.
fiz. 45 no.4:910-912 0 '63. (MIRA 16:11)

PANKRATOV, V.M.; SERIKOV, I.N.

(He^3, α) reaction on Cl^{12} and Mg^{24} nuclei. Zhur. eksp. i teor.
fiz. 45 no.4:910-912 0 '63. (MIRA 16:11)

STRUCHKOV, V.I. (Moskva, 1-y Truzhennikov per., d.18, kv.37); VINOGRADOV, A.V.;
SAKHAROV, V.A.; PANKRATOV, V.M.

New method of determining the minute volume of the heart. Grud.
khir. 2 no.5:46-50 S-Q '60. (MIRA 16:5)

1. Iz kafedry obshechey khirurgii lechebnogo fakul'teta I Moskovskogo
ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.
(HEART--MEASUREMENT) (BLOOD VOLUME)

L 17619-63

EWP(q)/EWT(m)/BDS AFPTC/ASD JD

8/056/63/044/003/019/053 58

AUTHOR: Pankratov, V. M. and Serikov, I. N.

TITLE: Elastic scattering¹⁹ of 26-33 Mev He³ on C, Na, Mg, and Al nuclei

PERIODICAL: Zhurnal eksperimental'noy i tekhnicheskoy fiziki, v. 44, no. 3,
1963, 887-893 ^{27 27 27 27}

TEXT: The low Mev region elastic scattering cross section for He³ was studied on only a few nuclei and for energies of 21 and 30 Mev. The present study tried to obtain the parameters of the optical model and to check the existence of sharp irregularities in the course of the differential cross section (as function of energy) which were reported by a group of Japanese authors, T. Mikumo, H. Yamaguchi, I. Nonaka, S. Hitake, T. Maki, M. Miki, and T. Nakajima (Ref. 9: Proc. of the Intern. Conf. on Nuclear Structure, Kingston, Canada, 1960, p. 391). Experimental results of the differential cross sections for elastic scattering of He³ (from an 1.5 m cyclotron beam) on C, Mg, and Al nuclei are presented for six energy values lying between 26 and 33 Mev and for the two energies 25.7 and 32.8 Mev for scattering on Na. The energy dependence is manifested by the variation of the

Card 1/2

L 17619-63

8/056/63/044/003/019/053 0

Elastic scattering of 26-35 Mev He³...

absolute values of the cross sections and by the angular shift of the diffraction maxima. For each of the nuclei the interaction range computed on the basis of diffraction on a "black" disc is found to be constant within the investigated energy range. The interpretation of these data by means of the optical model will be published later. There are 6 figures.

SUBMITTED: October 29, 1962

Card 2/2

PANKRATOV, V.M.; SERIKOV, I.N.

Elastic scattering of He^3 on C^{12} , N^{23} , Mg , and Al^{27} nuclei in the energy range 26 to 33 Mev. Zhur. eksp. i teor. fiz. 44 no.3:887-893 Mr '63.

(Helium—Spectra)

(Ions—Scattering)

(MIRA 16:3)
(Cyclotron)