7(6), 17(11), 5(3)

AUTHORS: Anashkina, N. P., Pavlova, O. A.   SCT, ...

TITLE: News in Brief (Korotkiye soobshcheniya)

ABSTRACT: The authors suggest a method for determining un-
                 saturated hydrocarbons in the air which is based upon
                 the reaction of mercury with compounds containing a
                 double bond and upon the colorimetric reaction of Hg-
                 ions with diphenyl carbazide or diphenyl carbazone.
                 A method for determining ethylene and propylene
                 was developed. In preparing the standard curve,
                 standard solutions of unsaturated hydrocarbons in
                 alcohol were prepared in concentrations of 0,025-0,08
                 mg/ml. and were then analyzed by the iodide number
                 method of Hübl(Gyubl). The intensity of the color
                 was measured on a FEK-M apparatus using a light
                 filter and cuvettes with a 10 mm layer thickness.
Card 1/2   3-60γ of ethylene and 2-25γ of propylene in 5,3 ml.

News in Brief   SOV/32-24-11-15/37

          of solution can be determined.

ASSOCIATION: Ufimskiy institut gigiyeny i profzabolevaniy (Ufa
               Institute for Hygiene and Occupational Diseases)

Card 2/2

S/161/62/004/005/053/055
B163/B138

AUTHORS: Petrusevich, R. L., Sollertinskaya, Ye. S., and Pavlova, O. I.

TITLE: Etching of dislocations in the (111) plane of gallium arsenide

PERIODICAL: Fizika tverdogo tela, v. 4, no. 5, 1962, 1376-1380

TEXT: Various etching agents and conditions were studied for the prepara-
tion of metallographic specimens of gallium arsenide in the (111) plane.
Those giving positive results are entered in the following table.

Composition in vol. parts	Etching conditions	Results of etching	Remarks
$H Cl-3$, HNO_3-1, H_2O-2	2-3 sec., boiling	The $(\bar{1}\bar{1}\bar{1})$ plane and all other planes are polished. Disloca- tions visible in the (111) plane as conical pits	Non- selective etchant
$HF-1$, HNO_3-3 H_2O-2	4-5 min, cold	Freshly prepared and cold medium gives bluish film. After boiling, some specimens are well polished in cold state	Non- selective etchant

Card 1/3

Etching of dislocations in the ...

S/181/62/004/005/053/055
B163/B138

Composition in vol. parts	Etching conditions	Results of etching	Remarks
		on all planes.	
H_2SO_4-3, H_2O_2 (30%)-1, H_2O-1	3-5 min in hot, freshly prepared etchant	All planes including ($\bar{1}\bar{1}\bar{1}$) are polished. In the (111) dislocations appear as conical pits.	Non-selective etchant
HF-1, H_2O_2 (30%)-1, H_2O-2	2-4 min cold	Dislocations appear in the (111) plane as conical pits.	Selective etchant
NaOH (5%)-5, H_2O_2 (30%)-1	2 min, boiling	Dislocations appear in the (111) plane as triangular pyramids	Selective etchant

Card 2/3

Etching of dislocations in the ...

S/181/62/004/005/053/055
3163/3138

Composition in vol. parts	Etching conditions	Results of etching	Remarks
KOH-6 g, $K_3\left[Fe(CN)_6\right]-$ 4 g, H_2O-50ml	0.5-1 min boiling	Dislocations appear in the (111) surface in form of triangular pyramids	Selective etchant, used for germanium
HNO_3-1, H_2O-3	1-2 min boiling	Dislocations appear in the (111) surface in form of triangular pyramids	Selective etchant

The density of the acids was: $HNO_3 - 1.4$ g/cm^3, $H_2SO_4 - 1.84$ g/cm^3, HCl - 1.19 g/cm^3, HF - 1.13 g/cm^3. There are 2 figures and 1 table.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut obrabotki tsvetnykh metallov, Moscow (State Scientific Research and Project Institute for Working Non-ferrous Metals, Moscow)

SUBMITTED: January 15, 1962 (initially), February 10, 1962 (after revision)

Card 3/3

PAVLOVA, O.I.; PETRUSEVICH, R.L.

Effect of the crystallographic orientation on the geometry of a fused p-n junction in gallium arsenide. Trudy Giprotsvetmetobrabotka no.24:54-56 '65.   (MIRA 18:11)

PAVLOVA, O.I.

Technical problems in the history of the electrodeposition of
metals. Izv.vys.ucheb.zav.; tsvet.met. 3 no.2:161-165 '60.
                                                    (MIRA 15:.)

1. Institut istorii yestestvoznaniya i tekhniki AN SSSR.
                        (Electroforming)

PETRUSEVICH, R.L.; SOLLERTINSKAYA, Ye.S.; PAVLOVA, O.I.

Detection of dislocations on a (111) plane of gallium arsenide
by etching. Fiz. tver. tela 4 no.5:1378-1380 My '62. (MIRA 15:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut obrabotki tsvetnykh metallov, Moskva.
         (Gallium arsenide)   (Dislocations in crystals)
                         (Etching)

PAVLOVA, O.I.

New materials on the history of galvanoplasty. Vop. ist. est. i
tekh. no.13:129-131 '62.

(MIRA 16:5)

(Electroplating)

PAVLOVA, Ol'ga Igorevna; POGODIN, S.A., zasl. deyatel' nauki i
tekhn. RSFSR, prof., otv. red.; CHERNOV, A.N., red.izd-
va; SIMKINA, G.S., tekhn. red.

[History of the technique of electric deposition of metals]
Istoriia tekhniki elektroosazhdeniia metallov. Moskva, Izd-
vo AN SSSR, 1963. 126 p.   (MIRA 16:7)
                         (Electroplating)

PAVLOVA, O. I.

History of electroplanting. Trudy Inst.ist.est.i tekh. 33:266-298
'60.   (MIRA 13:8)
                    (Electroplating)

DAYTONA, Colo., PENNYNSYL......, N. of ....

Investigating .... of de .... Indy
trih Ska ro......., 165.

PAVLOVA, O.H.,prof.

Clinical aspects and treatment of thromboembolic complications in various diseases. Sbor.trud.Tashk.KBNP no.1:8-25 '56 (MIRA 11:3)
(BLOOD--CIRCULATION, DISORDERS OF)

PAVLOVA, O.N., zasl. deyatel' nauki Uzbekskoy SSR, doktor med. nauk,
        prof.; red.; MEDVEDEVA, T.S., red.; AGZAMOV, K.A., tekhn.
        red.

[Urgent diagnosis and therapy] Voprosy neotlozhnoi diagno-
stiki i terapii. Tashkent, Medgiz, UzSSR, 1962. 190 p.
                                         (MIRA 16:4)
1. Tashkent. Gosudarstvennyy meditsinskiy institut. Kafedra
gospital'noy terapii pediatricheskikh i professional'nykh
bolezney sanitarno-gigiyenicheskikh fakul'tetov na baze
klinicheskoy bol'nitsy neotlozhnoy pomoshchi.
            (MEDICAL EMERGENCIES)

PAVLOVA, O.N., prof.; MIROCHNIK, A.M., assistent; CHATSKIS, M.F., ordinator

Clinical features of hemolytic anemias. Sbor.trud.Tashk.KBHP
no.1:26-35 '56   (MIRA 11:3)
        (ANEMIA)

PAVLOVA, O.N., prof., zasl. deyatel' nauki, red.; CHAYKA, G.V., red.;
TSAY, A.A., tekhn. red.

[Peptic ulcer under the climatic conditions in Uzbekistan]
IAzvennaia bolezn' v usloviiakh klimata Uzbekistana; sbornik
nauchnykh rabot. Pod red. O.N.Pavlovoi. Tashkent, Medgiz
UzSSR, 1961. 173 p.   (MIRA 15:6)

1. Tashkent. Meditsinskiy institut. Sanitarno-gigiyenicheskiy
fakul'tet. Kafedra gospital'noy terapii.
          (UZBEKISTAN—PEPTIC ULCER)

PAVLOVA, O.N., prof.; BAYRASHEVA, A.G., assistent

Etiology and pathogenesis of certain endocrine disorders from the
point of view of "nervism." Sbor.trud.Tashk.KBNP no.1:36-47 '56
(MIRA 11:3)

(ENDOCRINE GLANDS--DISEASES) (CEREBRAL CORTEX)

VELIKOVSKAYA, E.M.; VEYSMAN, A.P.; VERGUNOV, J.I.; ALBOKIN, V.A.; LYISTIKH,
Ye.N.; LISOVETSKIY, I.A.; MOZZHOV, A.V.; FELDMAN, V.I.; SAVITSKIYA,
Ye.R.; GENDLER, V.Ye.; MOROZOV, B.N.; LAV KNOTOVL, Ye.I.;
LYUBIMOVA, L V.; KHMAL , A.Yu.; VELIKOVSKAYA, E.M.; ALGAIN, I.M.;
CHERNIKOV, C.A.; SORORIN, V.S.; IL'IN, A.N.; FLOROVSKAYA, V.N.;
ZEZIN, R.B.; TEPLITSKAYA, T.A.; BRESHKOVSKIY, B.A.; KISSIN, I.G.;
CHIZHOVA, N.A.; LAVISIA, C.I.; SHIKTOV, Yu.I.

Supplements. Biul. MOIP. Otd. geol. 39 no.4:155 Jl.-Ag '64.
                                              (MIRA 17:10)

L 29284-66 - EWT(m)/T

| ACC NR: AP6019334 | SOURCE CODE: UR/0367/66/003/003/0499/0502 |

AUTHOR: Ternov, I. M.; Korovina, L. I.; Pavlova, O. S.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Single-photon annihilation of polarized electron-positron pairs in a magnetic field

SOURCE: Yadernaya fizika, v. 3, no. 3, 1966, 499-502

TOPIC TAGS: magnetic field, photon, electron positron pair, electron spin

ABSTRACT: The influence of the electron and positron spin orientation on the probability of their annihilation in a magnetic field is investigated. It is shown the annihilation probability decreases if the electron spin is opposite to the positron spin and to the direction of the magnetic field. Orig. art. has: 18 formulas. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 20 / SUBM DATE: 29Jun65 / ORIG REF: 005

Card 1/1 ac

PANNIKOV, Viktor Dmitriyevich, prof.; VASIL'YEVA, O.S., red.; PAVLOVA,
O.S., tekhn. red.

[Fundamentals of geology] Osnovy geologii. Moskva, Gos. izd-vo
"Vysshaia shkola," 1961. 286 p.   (MIRA 14:9)
(Geology)

ISAKOV, I.S., prof., admiral flota v otstavke, otv.red.; PETROVSKIY, V.A.,
dotsent, kand.voyenno-morskikh nauk, kontr-admiral, zamestitel'
otv.red-ra [deceased]; DEMIN, L.A., dotsent, kand.geograf.nav k,
inzh.-kapitan 1 ranga, glavnyy red.; BERG, S.L., inzh.-mayor, red.;
PAVLOVA, O.T., red.; PANIN, I.S., red.; KRONIDOVA, V.A., red.;
MARAGINA, A. S., red.; SHIROKOVA, V.S., red.; BOGOLYUBOVA, Ye.D.,
inzh.-kartograf; BRAILOVSKAYA, Ye.D., inzh.-kartograf; ZININA, Ye.M.,
inzh.-kartograf; ORLOVA, N.S., inzh.-kartograf; SAVINOVA, G.N., inzh.-
kartograf; ALEKSEYEVA, A.V., tekhnik-kartograf; BALAKSHINA, M.M.,
tekhnik-kartograf; GRIGOR'YEV, A.P., tekhnik-kartograf; DUROVA, T.P.
tekhnik-kartograf; MILETINA, M.S., tekhnik-kartograf; SIMAVONOVA,
O.B., tekhnik-kartograf; TROPOVA, Z.V., tekhnik-kartograf; SHUMAN,
E.E., tekhnik-kartograf; FURAYEVA, Ye.M., tekhn.red.; SVIDERSKAYA,
G.V., tekhn.red.; CHERNOGOROVA, L.P., tekhn.red.; SHREYDER, L.Z.,
tekhn.red.

[Marine atlas] Morskoi atlas. Otv. red. I.S. Isakov. Glav. red.
L.A. Demin. Izd. Morskogo general'nogo shtaba. [---Index of
geographical names] ---Ukazatel' geograficheskikh nazvanii. 1952.
543 p.   (MIRA 12:1)

1. Russia (1923- U.S.S.R.) Voyenno-morskoye ministerstvo.
         (Ocean--Maps)   (Harbors--Maps)

33988
S/062/62/000/002/013/013
B117/B138

5.2420
5.2410

AUTHORS: Shchukovskaya, L. L., Voronkov, M. G., and Pavlova, O. V.

TITLE: New method of N-dimethyl-B-difluoro borazene synthesis

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 2, 1962, 366

TEXT: The new method consists in the separation of hydrogen fluoride from N-dimethyl-B-trifluoro borazane heated with aluminum dust in vaseline oil medium. $C_2H_7NBF_3$ (boiling point 149 - 150°C (5 mm Hg), dry aluminum dust, and vaseline oil (boiling point 210 - 230°C (2 mm Hg)) were slowly heated in a distilling flask on Wood's alloy. At 278° hydrogen started separating energetically and the collecting vessel connected with the gasometer by way of a cooling trap rapidly filled with white brilliant N-dimethyl-B-difluoro borazane crystals. Owing to the vaseline oil the course of the reaction $6(CH_3)_2NH \cdot BF_3 + 2Al \longrightarrow 6(CH_3)_2NBF_2 + 2AlF_3 + 3H_2$ was very smooth and easy to control. Yield of N-dimethyl-B-difluoro borazene: 85 - 88%. Some compounds of the type $R_2N \, BF_2$, which are still being examined, were obtained in a similar

Card 1/2

LEVINA, TS.A.; PAVLOVA, O.V.

Role of neurogen... s factors in the development of diseases of the blood. Trudy Kiev. nau...-issl. inst. perel. krovi i neotlczh. khir. 3:123-187 '61.   (MIRA 17:10)

1. Propedevticheskaya terapevticheskaya klinika Odesskogo meditsinskogo instituta imeni N.I.H...gova.

SHCHUKOVSKAYA, L. L.; VORONKOV, M. G.; PAVLOVA, O. V.

New method of preparing of N-dimethyl-B-difluoroborazine. Izv. AN
SSSR Otd.khim.nauk no.2:366 F '62.

1. Institut khimii silikatov AN SSSR.
                        (Borazine)

SHCHUKOVSKAYA, L.L.; VORONKOV, M.G.; PAVLOVA, O.V.

New methods of synthesizing B-monohalo-substituted N-dialkyl-borazines and N-trialkylborazanes. Dokl. AN SSSR 143 no.4: 887-889 Ap '62.
(MIRA 15:3)

1. Institut khimii silikatov AN SSSR. Predstavleno akademikom A.V.Topchiyevym.
(Borazane) (Borazine)

LEVINA, TS.A., prof., GRUZINA, Ye.A.,dots., VASIL'YEVA, N.A., ROMANOVSKAYA, A.I.,
YAGODKINA, E.I., PAVLOVA, O.V.

Treating stenocardia with nitranol. Sov.med. 22 no.8:119-126 Ag '58
                                                (MIRA 11:10)

1. Iz propedevticheskoy terapevticheskoy kliniki (zav. prof.
TS.A. Levina) Odesskogo meditsinskogo instituta imeni N.I. Pirogova
(dir. prof. I.Ya. Deyneka).
               (ANGINA, PECTORIS, ther.
                    aminotrate (Rus))
               (NITRITES, ther. use
                    aminotrate in angina pectoris (Rus))
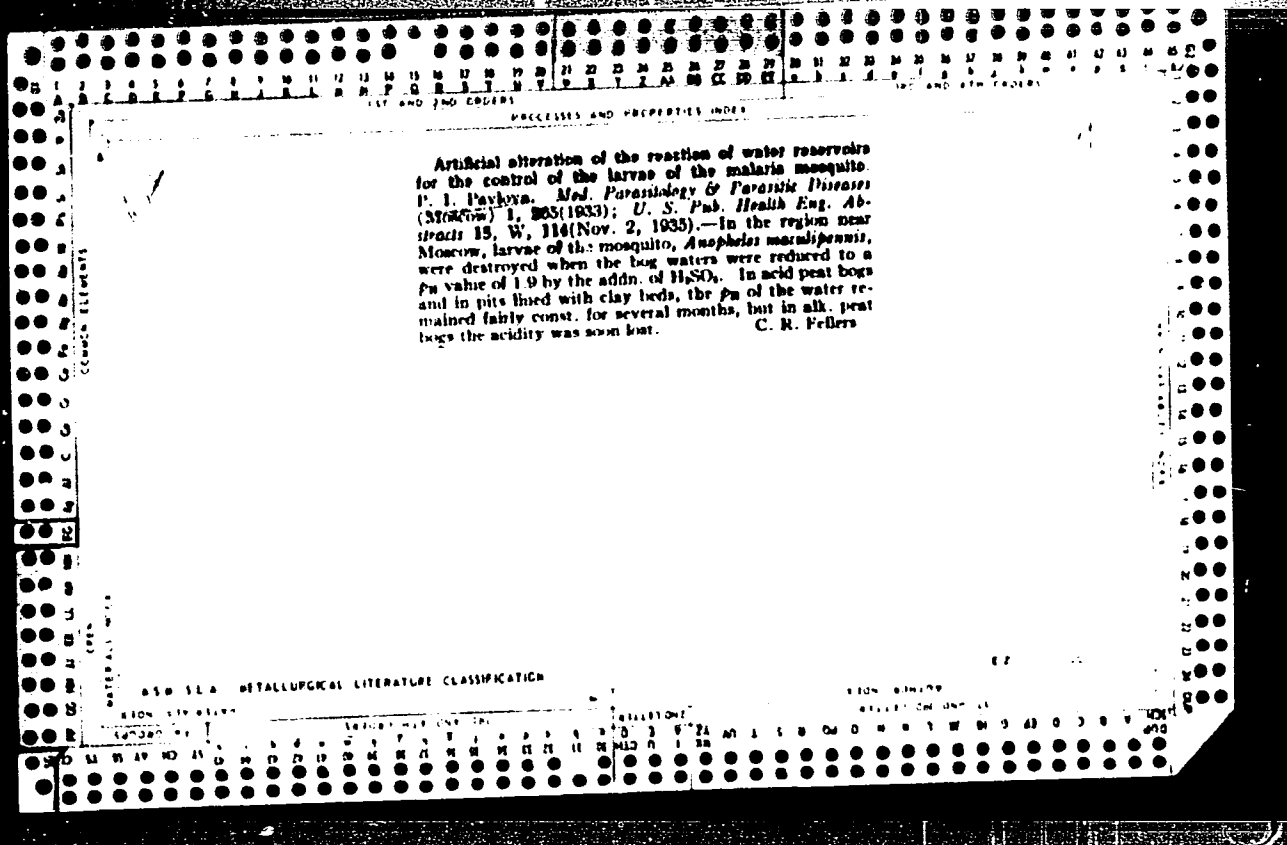
PAVLOVA, O.V.

Effect of nitranol on the cutaneous capillaries in disorders
of coronary circulation. Khim. i med. no.16:64-67 '61.
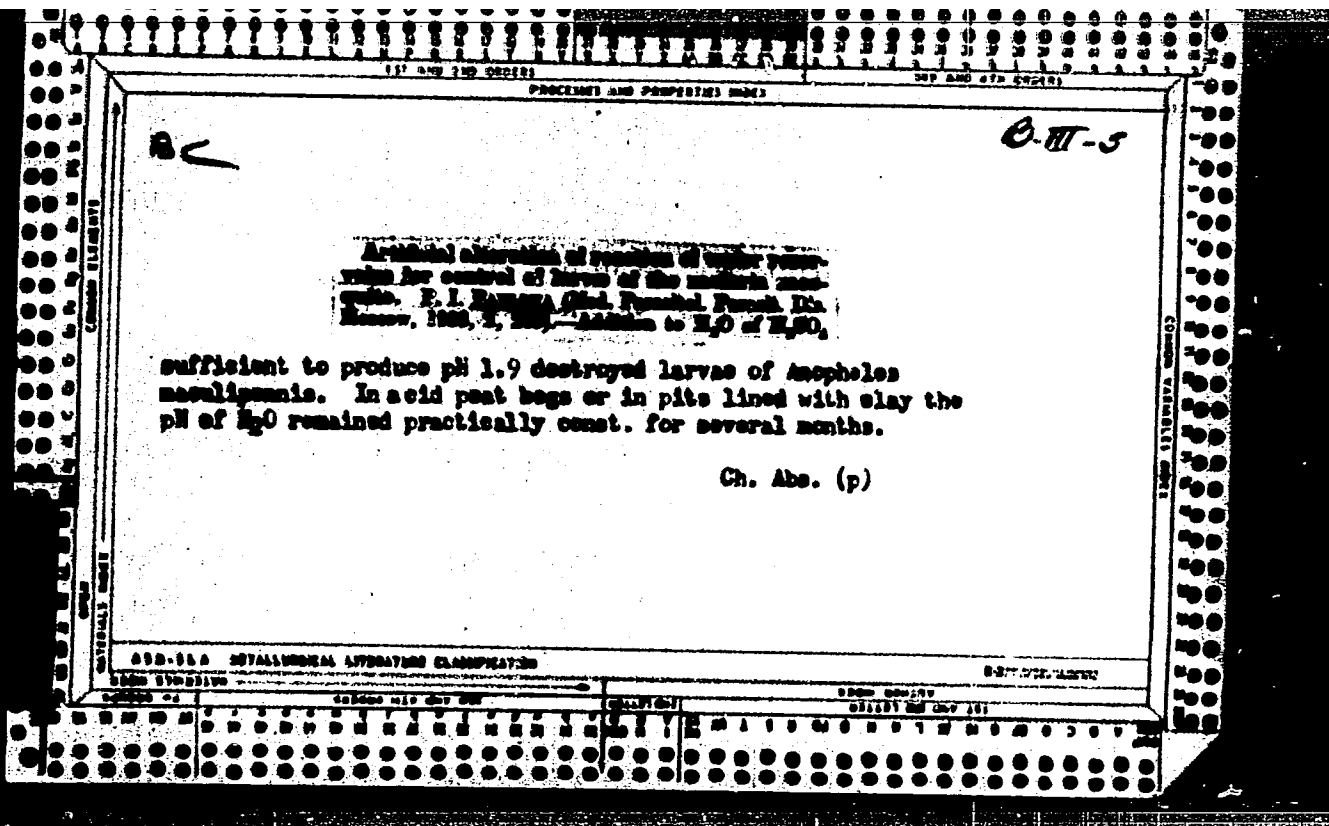
(MIRA 17:8)
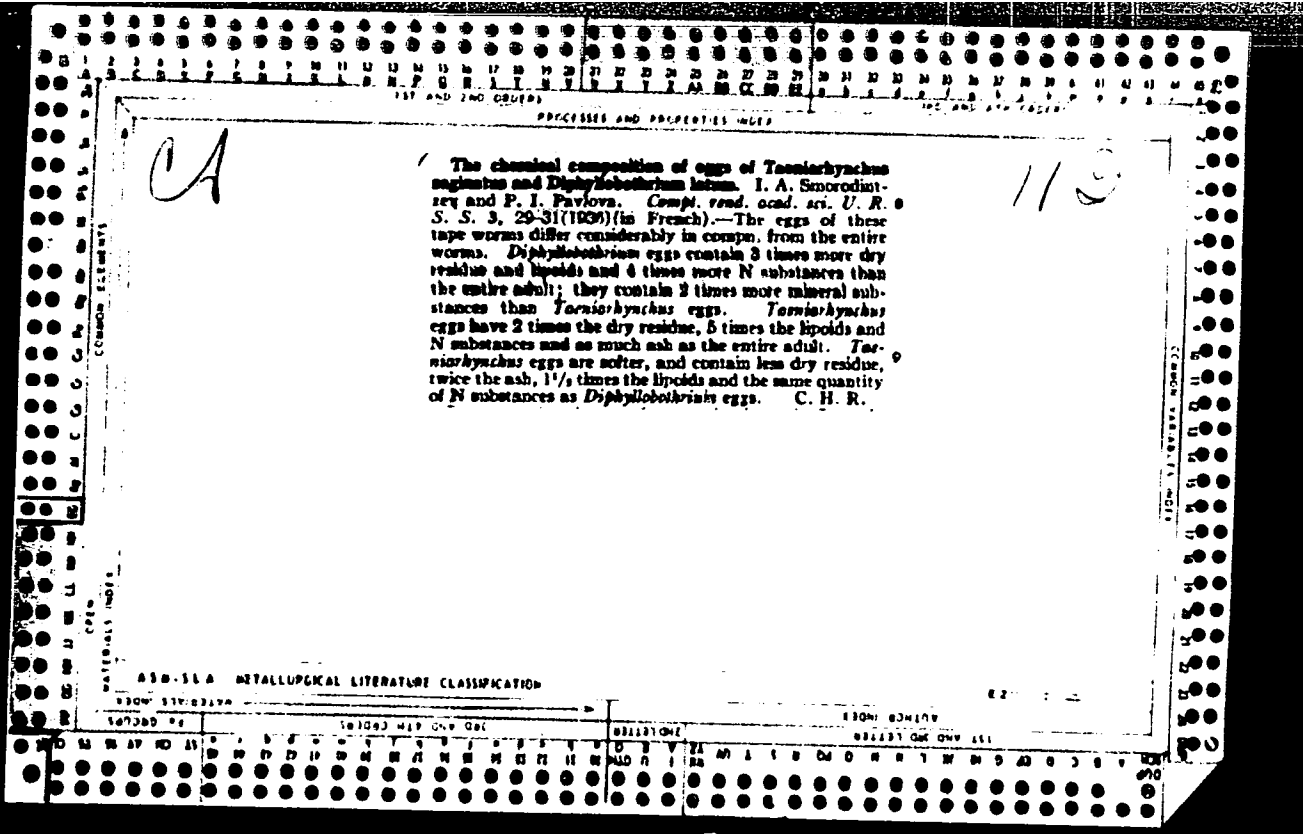
BELYAYEV, Anatoliy Ivanovich; PAVLOVA, Ol'ga Igorevna

Pavel Pavlovich Fedot'ev. Moskva, Metallurgiia, 1965. 92 p.
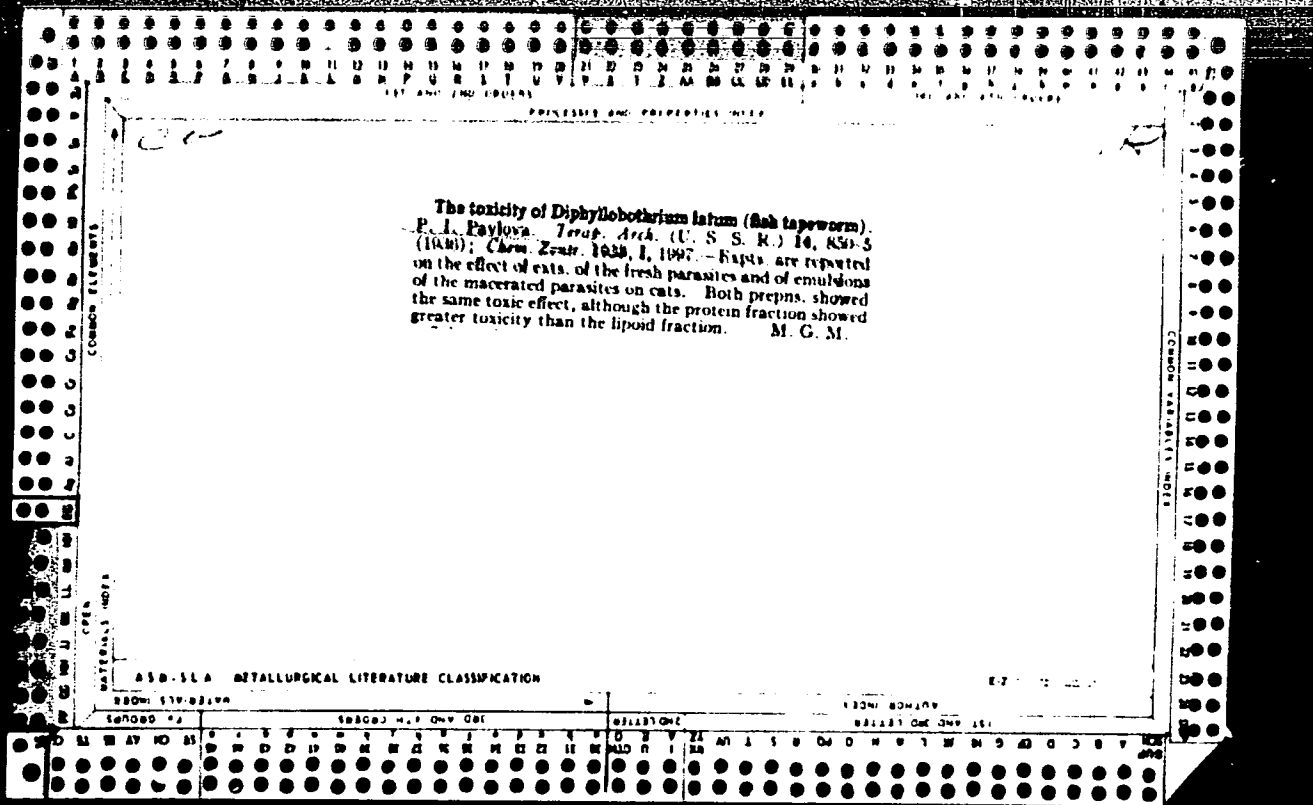(MIRA 18:8)

PAVLOVA, P.

Learn it, it will come in handy. Znan. ta pratsia no. 11:4-5
N '60.   (MIRA 14:4)
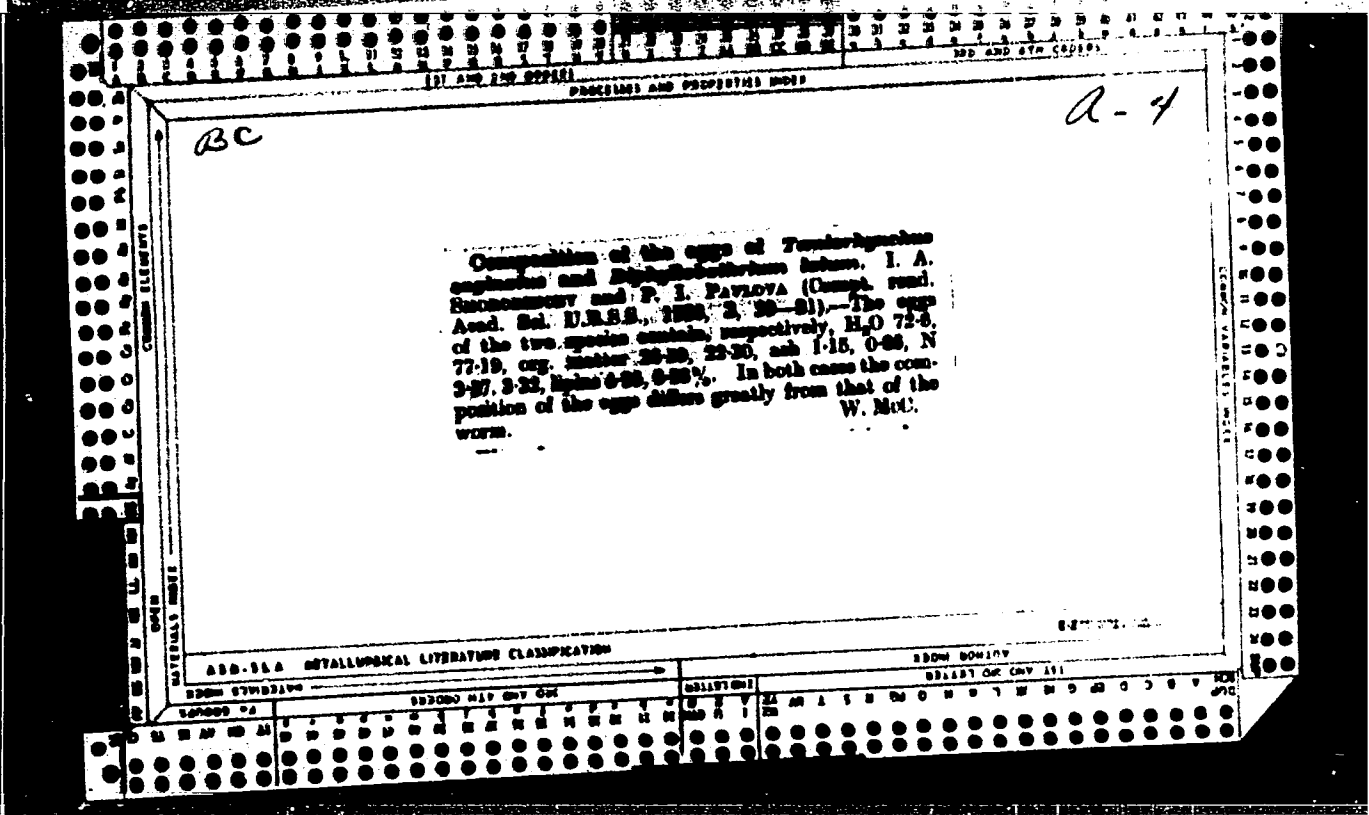   (Automobile drivers)

Artificial alteration of the reaction of water reservoirs for the control of the larvae of the malaria mosquito. P. I. Pavlova. *Med. Parasitology & Parasitic Diseases* (Moscow) 1, 865(1933); *U. S. Pub. Health Eng. Abstracts* 15, W, 116(Nov. 2, 1935).—In the region near Moscow, larvae of the mosquito, *Anopheles maculipennis*, were destroyed when the bog waters were reduced to a p_H value of 1.9 by the addn. of H_2SO_4. In acid peat bogs and in pits lined with clay beds, the p_H of the water remained fairly const. for several months, but in alk. peat bogs the acidity was soon lost.

C. R. Fellers

B.III-5

sufficient to produce pH 1.9 destroyed larvae of Anopheles maculipennis. In acid peat bogs or in pits lined with clay the pH of H₂O remained practically const. for several months.

Ch. Abs. (p)

The chemical composition of eggs of *Taeniarhynchus saginatus* and *Diphyllobothrium latum*. I. A. Smorodintzev and P. I. Pavlova. *Compt. rend. acad. sci. U. R. S. S. 3*, 29-31(1936)(in French).—The eggs of these tape worms differ considerably in compn. from the entire worms. *Diphyllobothrium* eggs contain 3 times more dry residue and lipoids and 4 times more N substances than the entire adult; they contain 2 times more mineral substances than *Taeniarhynchus* eggs. *Taeniarhynchus* eggs have 2 times the dry residue, 5 times the lipoids and N substances and as much ash as the entire adult. *Taeniarhynchus* eggs are softer, and contain less dry residue, twice the ash, 1½ times the lipoids and the same quantity of N substances as *Diphyllobothrium* eggs.   C. H. R.

A56-5LA   METALLURGICAL LITERATURE CLASSIFICATION

The toxicity of Diphyllobothrium latum (fish tapeworm).
P. I. Pavlova. *Trud. Arch.* (U. S. S. R.) 14, 850-5
(1938); *Chem. Zentr.* 1938, I, 1997. — Rats are reported
on the effect of cats. of the fresh parasites and of emulsions
of the macerated parasites on cats. Both prepns. showed
the same toxic effect, although the protein fraction showed
greater toxicity than the lipoid fraction.   M. G. M.

ꞴC

𝑎 - 4

Composition of the eggs of *Teredo hyalina* *septentrio* and *Dreissensia*-like. I. A. Sacomanov and P. I. Pavlova (Compt. rend. Acad. Sci. U.R.S.S., 1939, 2, 78—81).—The egg of the two species contain, respectively, H₂O 72·6, 77·19, org. matter 26·20, 22·30, ash 1·15, 0·64, N 3·97, 3·32, lipins 6·68, 6·12%. In both cases the composition of the egg differs greatly from that of the worm.

W. McC.

PAVLOVA, P.S.

KAZANSKIY, B.A.; STERLIGOV, O.D.; HELEN'KAYA, A.P.; KONDRAT'YEVA, G.Ya.;
    PAVLOVA, P.S.

Determination of the unsaturation of isopentane-isoprene-isoamylene
mixtures by bormometric methods. Izv. AN SSSR Otd. khim. nauk
no.11:1399-1400 N '57.   (MIRA 11:3)

1.Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
        (Bromometry) (Isopentane) (Isorene) (Isoamylene)

PAVLOVA, P. S.

75-1-23/26

AUTHORS: Kazanskiy, B. A., Sterligov, O. D., Pavlova, P. S.
Belen'kaya, A. P., Kondrat'yeva, G. Ya.,

TITLE: Bromometric Methods of Determining Unsaturated Hydro-
carbons in Isopentane-Isoprene-Isoamylene Mixtures
(Opredeleniye nepredel'nosti izopentan - izopren -
izoamilenovykh smesey bromometricheskimi metodami)

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1958, Vol 13, Nr 1, pp 134-141,
(USSR)

ABSTRACT: In the catalytic dehydrogenation of isopentane a mixture of
5 components forms - the initial product, 3 isopentenes and
isoprene. The quantitative relation of the components depends
on the reaction conditions. In the present paper the relia-
bility of the three bromimetric methods - according to
Rosenmund (Reference 3), Gal'pern (Reference 5) and Vyrabiants
(Reference 6) is examined. This control was investigated in
pure C_5-hydrocarbons and also in various artificial mixtures
of isopentane with isopentenes and isoprene ohich differed in
the number of components and also in their concentration. It
became evident that the method according to Vyrabiants is not

Card 1/5

75-1-23/26

Brom0netric Methods of Determining Unsaturated Hydrocarbons in Isopentane-
Isoprene-Isoamylene Mixtures

suitable for an analysis of such mixtures, because the error
assumes different values and attains up to 7 - 8 % (absolute).
The results obtained according to Rosenmund and Gal'pern con⌄
firm the fact that the accuracy of the determination of double
bonds depends on the structure of the hydrocarbons and on the
composition of the mixture: 2-methyl-butene(2) and 3-methyl-
butene(1) without difficulty absorb 1 bromine molecule on
bromination. 2-methyl-butene(1) and isoprene consume more
than 1 bromine molecu¹ ·nd therefore yield too high results,
relative to a double ᵥₒ…d, in the determination according to
Rosenmund and Gal'pern. The analysis of mixtures with 3 or 4
components, but without isoprene, showed an average absolute
error of the determination of the olefines of ± 1 %. On addi-
tion of isoprene to the mixtures with 3 components the ab-
solute error increases to ± 3 %. The analysis of mixtures with
5 components showed that the absolute error in the case of an
isoprene content up to 20 % in the method accordinℊ to Rosen-
mund on the average amounts to + 3 % and according to the
method by Gal'pern -2 %. As the average error in the

Card 2/5

75-1-23/26

Bromometric Methods of Determining Unsaturated Hydrocarbons in Iso-
pentane-Isoprene-Isoamylene Mixtures

determination of the total number of double bonds in
mixtures of 5 components according to both methods has a
systematic nature, it can be taken into account by the intro-
duction of a corresponding coefficient (in the case of an
isoprene content up to 20 %). It was shown that the values
for the total number of double bonds which were once de-
termined according to Rosenmund and once according to
Galﬁpern practically coincide after the introduction of a
correction coefficient. As the method of bromination only
makes possible a sum determination for alkenes and dienes,
the content of monoolefines can only be determined from the
difference between the total number of double bonds and the
content of dienes. In the present case an appropriate cor-
rection which takes into account the content of isoprene must
therefore be applied to the bromimetric results for determin-
ing the content of isopentenes. For the determination of iso-
prene the photometric method according to Robey and Wiese
(Reference 17) was employed which is well applicable in the
presence of monoolefines, but also of some dienes. The average

Card 3/5

75-1-23/26

Bromometric Method of Determining Unsaturated Hydrocarbons in
Isopentane-Isoprene-Isoamylene Mixtures

error of this determination is less than 1 % (absolute).
Determination takes 1 1/2 hours, which time can be shortened
in series determinations to 20 minutes for one determination.
When the concentration of isoprene in isopentane-isoprene-
isopentene mixtures has been determined in this manner, the
content of isopentenes (P) can be calculated according to the
formula P = a.P'-b. P is the found total number of double
bonds in the mixture, b is the concentration of isoprene in
the mixture and a is the correction coefficient. In the method
according to Rosenmund a - 0,96 and in the method according
to Gal'pern a = 1,04. All performed tests are exactly de-
scribed. During the elaboration of this method a short
article by Timofeyeva and collaborators (Reference 18) on the
same problem was published. In this article a correction co-
efficient is introduced in the final formula of the calcul-
ation which only takes into account the error produced by the

Card 4/5   inexact bromination of isoprene.

75-1-23/26

Bromometric Methods of Determining Unsaturated Hydrocarbons in
Isopentane-Isoprene-Isoamylene Mixtures

There are 1 figure, 5 tables, and 21 references, 15 of
which are Slavic.

ASSOCIATION: Institute for Organic Chemistry im. N.D. Zelinskiy, AS USSR,
Moscow   (Institut organicheskoy khimii im.
N.D.Zelinskogo AN SSSR, Moskva)

SUBMITTED: April 8, 1957

AVAILABLE: Library of Congress

1. Hydrocarbons - Determination

Card 5/5

PAVLOVH, P.S.

KAZANSKIY, B.A.; STERLIGOV, O.D.; BELEN'KAYA, A.P.; KONDRAT'YEVA, Yu.Ya.;
      PAVLOVA, P.S.

    Application of bromometric method in the determination degree of
    unsaturation of isopentane - isoprene - isoamylene mixtures [with
    summary in English]. Zhur. anal. khim. 13 no.1:134-141 Ja-F '58.
                                                    (MIRA 11:4)

    1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR, Moskva.
                    (Butane)   (Isoprene)   (Butene)

PAVLOVA, P S

AUTHORS: Kazanskiy, B. A.,   Sterligov, O. D.,   62-11-20/29
             Palen'kaya, A. P.,   Kondrat'yeva, G. Ya.,
             Pavlova, P. S.

TITLE: Determination of the Unsaturation of Isopentane-Isoprene-
           Isoamylene Mixtures According to Bromometric Methods.
           (Opredeleniye nepredel'nosti izopentan-izopren-
           izoamilenovykh smesey bromometricheskimi metodami).

ABSTRACT: Here a relative evaluation of the exactness of the methods
            of bromometrical determination of the unsaturation and the
            selection of the most useful method for the analysis of the
            isopentane-dehydration catalysates is brought. Examining
            the bromometric methods of K. W. Rosenmund (reference 1),
            G. D. Gal'pern (reference 2) and Virabyants with artificial
            mixtures showed that in dependence of the composition of the
            isopentane-isoprene-isoamylene mixtures the exactness of the
            determination of the total unsaturation according to the
            methods of Rosenmund and Gal'pern can vary absolutely from
            1 to 3   %. When introducing correcting coefficients the

Card 1/2

Determination of the Unsaturation of Isopentane-Isoprene-   62-11-20/29
Isoamylene Mixtures According to Bromometric Methods.

exactness of the determination can be raised to $\pm$ 1 %.
Virabyants' method is useless for these mixtures. It is
shown that under the conditions for the bromination, which
were investigated, the 2-methylbutene-1 binds more than
one bromine molecule. There are 4 tables, and 3 references,
1 of which is Slavic.

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

SUBMITTED: July 5, 1957.

AVAILABLE: Library of Congress

Card 2/2

STANIMIROV, D. (Pleven); PAVLOVA. R. (Pleven)

Activation of pupils in physics by the question-ans
Mat i fiz Bulg 7 no. 2:19-22 My-Je '64.

BUSHE, N.A., kand.tekhn.nauk; PLENTSOV, G.I., kand.tekhn.nauk.; RODZAYEVSKAYA, Yu.A., kand.tekhn.nauk; PAVLOVA, R.G., inzh.

Increase in the wear resistance of the contact wire. Trudy TSNII MPS no.233:5-28 '62. (MIRA 15:9)
(Electric railroads—Wires and wiring)

PAVLOVA, R.G.; ZAKHAROV, M.V., prof., doktor tekhn. nauk, rukovoditel' raboty

High strength electroconductive copper alloys. TSvet. met. 36
no.10:64-69 O '63.

(MIRA 16:12)

PAVLOVA, R.I.

Experience in the work of the Simferopol dispensary for tuberculosis control in the early diagnosis of tuberculosis. Probl. tub. 42 no.11:3-5 '64.

(MIRA 18:8)

1. Glavnyy vrach Simferopol'skogo protivtuberkuleznogo dispansera.

PAVLOVA, R.P.

Evaluation of the boron content based on the mineral composition
of water. Izv. vys. vys. ucheb. zav.; neft' i gaz 2 no.8:126 '59.
(MIRA 12:11)

(Boron)

ISMAYILOV, K.A.; PAVLOVA, R.F.

A specific feature of the distribution of water in the Kirmaki and sub-Kirmaki series of the Kala oil field. Dokl. Al' Azerb. SSR 17 no.8:711-715 '61.   (MIRA 14:10)

1. Institut geologii AN AzerbSSR. Predstvaleno akademikom AN Azerbaydzhanskoy SSR M.V. Abramovichem.
        (Kala region(Azerbaijan)--Oil field brines)

PAVLOVA, R.P.

Change in the mineralization of waters of the Sub-Kirmaki series
in the Apsheron Peninsula in relation to the hypsometric depth of
bedding. Azerb. neft. khoz. 40 no.10:8-9 O '61.   (MIRA 15:3)
              (Apsheron Peninsula--Oil field brines)

PAVLOVA, R.P.

Boron content of the Sub-Kirmaki series waters of the Apsheron
oil fields. Dokl.AN Azerb.SSR 13 no.10:1091-1094 '57. (MIRA 10:12)

1. Institut geologii AN AzerSSR. Predstavleno akademikom AN
AzerSSR M.V.Abramovichem.
     (Apsheron Peninsula--Water. Underground)   (Boron)

KOLESOV, V.I., prof.; PAVLOVA, R.V.

Treatment of myocardial infarction by ligation of the internal
thoracic artery associated with block of the preaortic nerve
plexus. Vest. khir. 94 no.2:13-19 F '65.

(MIRA 18:5)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I.
Kolesov) 1-go Leningradskogo meditsinskogo instituta imeni Pavlova.

PAVLOVA, S.

John Reed, the bard of revolution.   Sov. profsoiuzy 19 no.16:
40-41 Ag '63.
(MIRA 16:10)

C A

High-molecular weight compounds XXVIII. Action of hydriodic acid on ethylene glycol and its polyesters. V. V. Korshak and S. A. Pavlova (Acad. Sci. U.S.S.R., Moscow). Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk 1950, 576-7; cf. C.A. 44, 7218a. — Boiling 10 g. (CH₂OH)₂ with ... ml. HI (b. 125.7°) gave 0.5 l. gas, identified as C₂H₄; formation of dibromide; distn. of the residual liquid gave a fraction b. 110-12°, which yielded a small amt. of poorly stable (CH₂I)₂, m. 81°; no EtI was detected (cf. Genu and Denkisch, C.A. 3, 170). Hence, the reaction proceeds by formation of (CH₂I)₂ which decomp. into I and C₂H₄, and the Zeisel detn. fails with glycol. Attempted use of the method for the detn. of EtO groups terminating polyesters of glycol with dicarboxylic acids similarly failed and gave erratic results. Evidently, the polyesters were hydrolyzed by HI, forming (CH₂I)₂, which then decompd. as above.

XXIX. Polyhydrazones. V. V. Korshak and B. A. Pushil'tsova. Ibid. 412-17. — Condensation of (p-H₂NNHC₆H₄)₂ (I) with dicarbonyl compds. gave polymers. A closer study of the reaction with Ac₂ showed that excess of the latter lowered the mol. wt. of the resulting polymer. ... the mixt. of I and the resulting polymer ...

BRESLER, S.Ye.; PAVLOVA, S.A.; FINOGENOV, P.A.

Diffusion of polymers in solutions. Zhur.Tekh. Fiz. 21,1061-5 '51.
(MLRA 4:9)
(CA 47 no.17:8467 '53)

1. Leningrad Phys.-Tech.Inst.

PAVLOVA, S. A.

PAVLOVA, S. A. -- "Investigation of the Polydispersiblity of Polyamides by
Means of Sedimentation in an Ultracentrifuge." Sub 29 Jan 52, Inst of
Organic Chemistry, Acad Sci USSR. (Dissertation for the Degree of Candi-
date in Chemical Sciences).

SO: Vechernaya Moskva January-December 1952

BRESLER, S. YE.: PAVLOVA, S. A.: FRENKEL, S. A.: AGRANAT, B. A.

Polymers and Polymerization

Remarks on the paper "Diffusion of polymers in solutions" Zhur. fiz. khim. 26 No. 5. 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

BRESLER, S.E.; KORSHAK, V.V.; PAVLOVA, S.A.; FINOGENOV, P.A.

Experimental study of the molecular-weight distribution function of polyamides. Doklady Akad.Nauk S.S.S.R. 87, 961-4 '52. (MLRA 5:12) (CA 47 no.14:6738 '53)

1. Inst. High-Mol. Compds., Acad. Sci. U.S.S.R., Moscow.
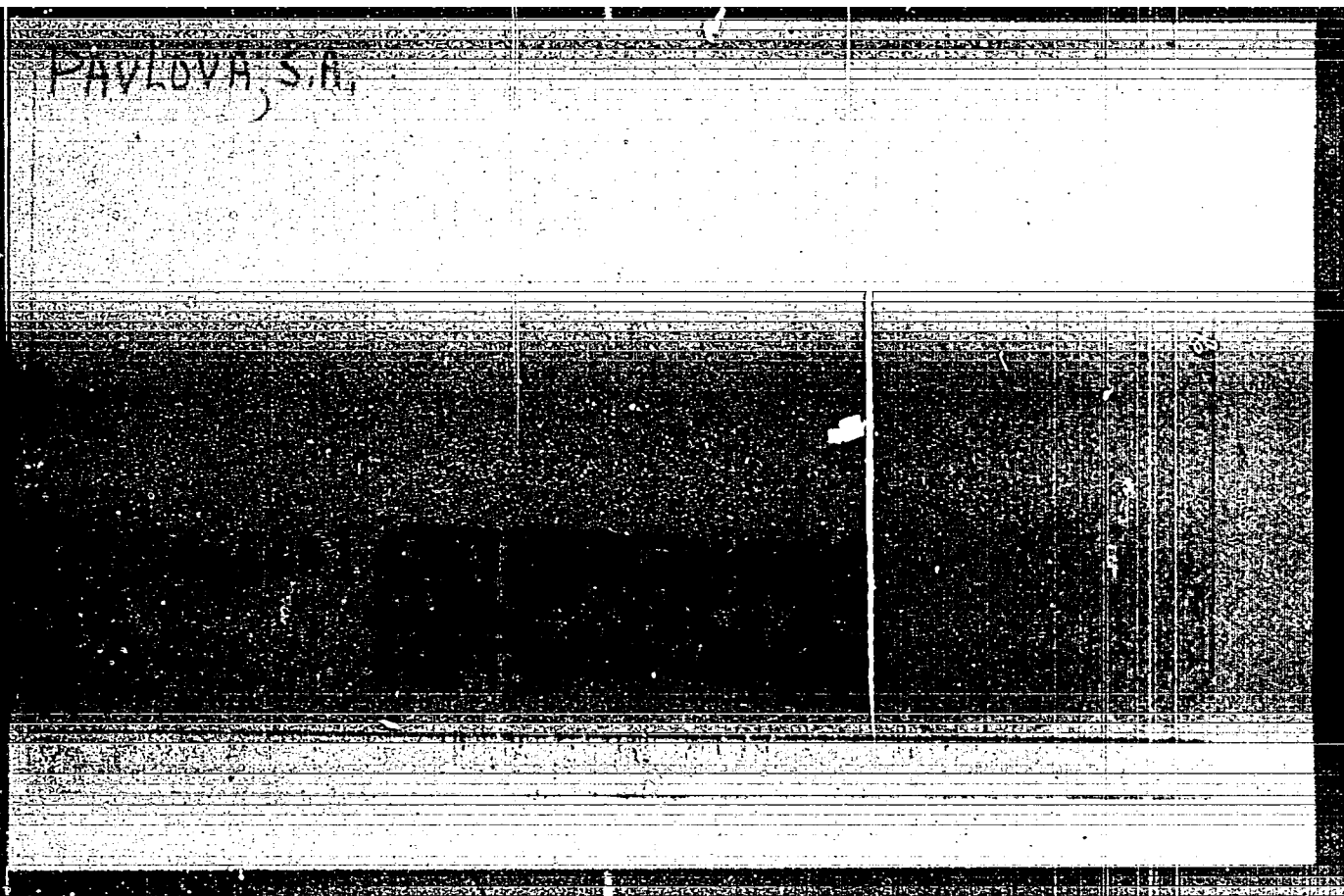
PAVLOVA, S.A.

PAVLOVA, S.A.

Distribution of polyamides according to molecular weight by means of ultracentrifugal sedimentation studies. I. Calculation of the distribution function of polyamides from sedimentation constants. B. E. Bresler, V. V. Korshak, S. A. Pavlova, and P. A. Frunze, Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk 1954, 344-53; cf. C.A. 47, 6738g.—The exptl. methods and data are given on which the conclusions of the earlier paper are based. II. Molecular-weight distribution of polyamides and the mechanism of polycondensation. Ibid. 354-61.—When exptl. distribution curves are compared with theoretical ones drawn on the basis of Flory's theory, disagreement is found. Side reactions between polymer chains and between polymer and monomer keep the mol.-wt. range within narrow limits.   J. P. Danehy

Inst. High Molecular Cmpds., Inst. Org. Chem., AS USSR

PAVLOVA, S.A.

BRESLER, S.Ye.; KORSHAK, V.V.; PAVLOVA, S.A.; FINOGENOV, P.A.

Experimental study of distribution functions for polyamides in
relation to molecular weights, by the method of ultracentrifuge
sedimentation. Report no.2. Molecular-weight distribution of
polyamides and the mechanism of polycondensation. Izv.AN SSSR.
Otd.khim.nauk no.2:354-361 Mr-Ap '54.   (MLRA 7:6)

1. Institut vysokomolekulyarnykh soyedineniy. 2. Institut
organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR.
     (Amides)   (Molecular weights)

KORSHAK, V.V.; PAVLOVA, S.A.

High molecular weight compounds.Part 86. Determination of the mole-
cular weights of polyamides by the viscosity of their solutions in
cresol and methanol. Izv.AN SSSR.Otd.khim.nauk 86 no.6:1107-1111
My. '55.   (MLRA 9:4)

1.Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR.
   (Molecular weights) (Amides)

· AUTHORS: Korshak, V.V.; Pavlova, S.A.   69-20-3-15/24

TITLE: From the Field of Heterochain Polymers (Iz oblasti geterotsep
nykh poliamidov) 10. The Effect of Some Organic Substances
on the Stability of Alcoholic Polyamide Solutions (10. Vliya-
niye nekotorykh organicheskikh veshchestv na stabilnost
spirtovykh rastvorov poliamidov)

PERIODICAL: Kolloidnyy zhurnal, 1958, vol XX, Nr 3, pp 349-352 (USSR)

ABSTRACT: The stabilization of concentrated polymer solutions i e the
retardation or prevention of the gel formation, is connected
with the solubility of the polymers. In the article, the
effect of various substances on the stability of concentrated
solutions of the mixed polyamide Anid G-669 in ethyl alcohol
has been considered. Anid G-669 has a molecular weight of
21,000. Several stabilizers like cresol, phenol, acid, water,
benzene, etc. were used. The Graphs 1 - 4 show the effect
of the different stabilizers in connection with the time of
gel formation, the stabilizers concentration, the concentration
of the water, etc. The stabilizing action of the non-solvent
stabilizers is characterized by an optimum in the relation-
ship between the solution stability and the stabilizer con-
centration and by a very great stabilizing action in the case

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69-20-5-15/24

From the Field of Heterochain Polymers. 10. The Effect of Some Organic
Substances on the Stability of Alcoholic Polyamide Solutions

of water.
There are 6 graphs, 3 tables, and 1 Soviet reference.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (In-
stitute of **Elemental-organic** Compounds of the USSR Academy of
Sciences)

SUBMITTED: July 11, 1957

Card 2/2   **1. Polymers—Stabilization   2. Polymers—Solubility**

AUTHORS: Pavlova, S. A., Tverdokhlebova, I. I.   SOV/76-32-6-19/46

TITLE: The Isopiestic Method of Determining Mean Molecular Weights
             (Ob izopiyesticheskom metode opredeleniya srednechislennogo
             molekulyarnogo vesa)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 6,
             pp. 1313 - 1318 (USSR)

ABSTRACT: At present micro- and macro-methods exist in this technique,
             the principle of which was for the first time proposed by Berger
             (Ref 1). The method by Signer (Ref 6) must be mentioned in
             particular. In the present study n-dibromobenzene, azobenzene
             and 1,2o-eicosandiol benzoate are used as standards. Some modi-
             fications of the methods applied hitherto for the purpose of
             precising the measuring technique were performed. Containers, a
             figure of which is given, and the weighing method according to
             MacBen were employed. The somewhat modified micro-method of
             determination according to Barger-Rast (Refs 2,5) was found to
             be the most accurate and most convenient one. The experimental
             technique employed is described. It appears that a mixing of
             the two solutions is almost impossible, thus an increase in the

Card 1/3

The Isopiestic Method of Determining Mean Molecular Weights   SOV/76-32-6-19/46

accuracy of determination being achieved. The temperature of the thermostat must not exceed the boiling temperature of the solvent employed. The size of the drops is measured on a ИЗА-2 comparator with an accuracy of 1μ. Experiments were conducted to establish the degree of accuracy of the method. The results are given in a table. From it satisfactory results for substances with a molecular weight of up to 17000 may be seen. The method is applicable to molecular weights of up to 50000. Finally thanks are expressed to G.L.Slonimskiy. There are 6 figures, 6 tables, and 18 references, 0 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut elementoorganicheskikh soyedineniy Moskva (Moscow, Institute of Elemental-organic Compounds, AS USSR)

SUBMITTED: February 8, 1957

Card 2/3

5(4)

AUTHORS: Pavlova, S. A., Rafikov, S. R.,   SOV/20-123-1-34/56
              Tsetlin, B. L.

TITLE: On the Regularities of the Radiation Vulcanization of Polyamides
              (O zakonomermostyakh radiatsionnoy vulkanizatsii poliamidov)
              By Means of the Samples of Anid G-669 (Na primera anida O-669)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 1, pp 127-130
              (USSR)

ABSTRACT: The present paper deals with the procuring of experimental
              proof of the reactions of the destruction and structural
              formation by the action of an ionizing radiation upon polyamides.
              The soluble mixed polyamide "Anid G -669", which is produced by
              polycondensation of hexamethylene diamine with adipic acid and
              mitazelaic acid as well as with caprolactate, was used as
              experimental object. The samples of 1 mm thickness of
              "Anid G -669" were irradiated for 1 - 20 hours in air and also
              in a vacuum. An X-ray tube of the type TRB -3 was used as
              radiation source. A diagram shows the thermomechanical curves
              of the compression of the samples of "Anid G -669" as a function
              of the dose. Already after three hours of irradiation a fraction,
Card 1/3   which is insoluble in acetic acid (7 percents of weight), occurs,

On the Regularities of the Radiation Vulcanization   SOV/20-123-1-34/56
of Polyamides. By Means of the Samples of Anid G-669

the portion of which increases to 76% after being irradiated for
10 hours. The second diagram shows the dependence of the
viscosity of the solutions on their concentration for
"Anid G -669" in creosol and in acetic acid. As a result of
irradiation, the viscosity for creosol solutions decreases and
it increases for solutions in acetic acid. Two further diagrams
show the results obtained by the turbidimetric titration of
non-irradiated and irradiated "Anid G -669" in form of integral
and differential distribution curves (with respect to
solubility).The maximum of the original differential
distribution curve divides into a double maximum as a result of
irradiation. The distance between the two maxima increases with
an increase of the dose. If the dose is larger than that
corresponding to the forming of a yellow color, the differential
distribution curves correspond to the distribution over
solubility within the brine fraction. The experimental data
obtained by the present paper show the following: Under the
influence of irradiation processes of production of transversal
bonds and of the destruction of the main chains of the
macromolecules take place in the polyamide.

Card 2/3

On the Regularities of the Radiation Vulcanization   SOV/20-123-1-34/56
of Polyamides . By Means of the Samples of Anid G-669

A complex investigation of the change of the mechanical
properties and of the properties of the solutions, as well as
of the distribution function with respect to molecular weights
makes it possible to give a sufficiently complete estimate of
the change of the molecular structure of polyamides during their
radiation-chemical transformation. Apparently, the application
of similar investigation methods makes it possible to separate
the parallel reactions of structural formation and of the
destruction of polymers of different structures. There are
4 figures and 8 references, 5 of which are Soviet.

PRESENTED: June 25, 1958, by V. A. Kargin, Academician

SUBMITTED: June 23, 1958

Card 3/3

PAVLOVA, S.A.; RAFIKOV, S.R.

Effect of the structure of polymers on the properties of solutions.
Part 1: Viscosity of solutions and molecular weight of mixed polyamides.
Vysokom. soed. 1 no.3:387-394 Mr '59.   (MIRA 12:10)

1.Institut elementoorganicheskikh soyedineniy AN SSSR.
                         (Amides)

RAFIKOV, S.R.; PAVLOVA, S.A.; TVERDOKHLEBOVA, I.I.

Effect of the structure of polymers. Part 2: Use of precision
ebullioscopy in the determination of the molecular weight of
polyaluminum organic siloxanes. Vysokom. soed. 1 no.3:400-403
Mr '59.   (MIRA 12:10)

1.Institut elementoorganicheskikh soyedineniy AN SSSR.
        (Molecular weights) (Siloxanes)

PAVLOVA, S.A.; TVERDOKHLEBOVA; I.I.

Selection of a membrane for the osmotic determination of the
molecular weight of low molecular weight polyamides. Vysokom.
soed. 1 no.3:438-442 Mr '59.   (MIRA 12:10)

1.Institut elementoorganicheskikh soyedineniy AN SSSR.
         (Molecular weights) (Amides)

PAVLOVA, S.A.; RAFIKOV, S.R.

Correlation between the viscosity of solutions and the molecular
weight of polymers. Vysokom.soed. 1 no.4:623-626 Ap '59.
(MIRA 12:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
          (Polymers) (Molecular weights)

86321

S/190/60/002/012/005/019
B017/B055

2209. 1228. 1241

53100

AUTHORS: Rafikov, S. R., Pavlova, S. A., Tverdokhlebova, I. I.

TITLE: Dependence of Solution Properties on Polymer Structure.
              III. Investigation of Solutions of Polydimethyl Siloxanes

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2. No. 12,
              pp. 1786-1793

X

TEXT: The authors studied the solutions of polydimethyl siloxane in
chloro benzene and benzene at 20, 30, and 40°C, and in isooctane at 20 and
30°C applying the method of viscous flow, light scattering, sedimentation
by ultracentrifugation, and diffusion. Fractional precipitation of poly-
dimethyl siloxane with methanol from its 3% solution in benzene at 20°C
yielded six fractions, the molecular weight of which was determined by
light scattering. The results are given in Table 1. The viscosity of the
polydimethyl siloxane solutions in chloro benzene at 20, 30, and 40°C is
represented graphically in Fig. 1. The molecular weight of polydimethyl
siloxane was calculated from the relation

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Dependence of Solution Properties on Polymer   S/190/60/002/012/005/019
Structure. III. Investigation of Solutions of   B017/B055
Polydimethyl Siloxanes

$$M = \frac{S \cdot R \cdot T}{D(1 - v\varsigma)}$$

where S = sedimentation constant, D = diffusion coefficient, R = gas con-
stant, T = temperature in $^\circ$K, v = specific partial volume of the polydi-
methyl siloxane and ς = its density. The viscosity of polydimethyl siloxane
solutions in chloro benzene, benzene and isooctane at 20, 30, and 40°C
are shown graphically in Figs. 2 and 3. The viscosity of polydimethyl
siloxane solutions in chloro benzene at 20 and 40°C and benzene at 20°C is
a linear function of the concentration. By determining the viscosity and
molecular weight, the authors obtained the constants K and a of the
equation $[\eta] = KM^a$, which gives the relation between the intrinsic viscosity
and the molecular weight. In Fig. 4, $\log[\eta]$ is plotted against $\log M$ for
polydimethyl siloxane in chloro benzene and benzene. The dependence of
$\log K$ on a, as calculated from the general formula

$$K = \frac{21}{m_0} \left(\frac{1}{2500 m_0}\right)^a$$ (Ref. 7) is illustrated in Fig. 5. m_0 is the mean

molecular weight of the polymer. The values of K and a for solutions of
polydimethyl siloxane in chloro benzene and benzene at 20 - 40°C are

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Dependence of Solution Properties on Polymer   S/190/60/002/012/005/019
Structure. III. Investigation of Solutions of   B017/B055
Polydimethyl Siloxanes

listed in Table 3. The mean distance between the chain ends is described by
the relation $(\overline{h^2})^{1/2} = \alpha(\overline{h_o^2})^{1/2}$. Fig. 6 represents the function
$(\overline{h^2})^{1/2} = f(M)^{1/2}$ for chloro benzene solutions of polydimethyl siloxane at
20, 30, and 40°C. From this it follows that the root mean square distances
between the chain ends of polydimethyl siloxane in chloro benzene and
benzene increase with an increase in temperature. The constant A, which
designates the ratio of the hydrodynamic diffusion and viscosity radii of
macromolecules, was calculated from the relation
$A = \eta_o T^{-1} D(M[\eta])^{1/3}$, where η_o is the viscosity of the solvent in poise, T
the temperature in °K, D the diffusion coefficient, M the molecular weight
of the polymer and $[\eta]$ the intrinsic viscosity. In the case of the chloro
benzene solutions of polydimethyl siloxane, A changes little with tempera-
ture variation, i.e. by $2.27 \cdot 10^{-10}$ to $2.8 \cdot 10^{-10}$ erg/degree. The relation
between the diffusion coefficient, D, and the molecular weight of the poly-
mer, M, was calculated and expressed as $D = 1.05 \cdot 10^{-4} M^{-0.547}$.

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86321

Dependence of Solution Properties on Polymer   S/190/60/002/012/005/019
Structure. III. Investigation of Solutions of   B017/B055
Polydimethyl Siloxanes

There are 6 figures, 4 tables, and 12 references: 4 Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR
                 (Institute of Elemental Organic Compounds of the Academy of
                 Sciences USSR)

SUBMITTED: May 12, 1960

Card 4/4

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 O '65.
(MIRA 18:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 26026-66   EWT(m)/EWP(j)   RM

ACC NR: AP6012723   (A)   SOURCE CODE: UR/0190/66/008/004/0752/0758

AUTHOR: Dubrovina, I. V.; Pavlova, S. A.; Korshak, V. V.

ORG: Institute of Organoelemental Compounds, Academy of Sciences, SSSR (Institut ele-mentoorganicheskikh soyedineniy AN SSSR)

TITLE: Study of branched polyarylates

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 4, 1966, 752-758

TOPIC TAGS: polyarylate, molecular weight, viscosity, fractionation, sedimentation

ABSTRACT: Samples of branched polyarylates were synthesized and the relationships between viscosity and molecular weight were established. A comparison was made of molecular weight distribution (MWD) curves obtained by fractionation and of those obtained by sedimentation in an ultracentrifuge. Polydispersity is somewhat broader according to the sedimentation data than according to the fractionation data, which may be explained by the higher resolving power of the ultracentrifuge. Polydispersity calculated by the Flory method considerably exceeded the experimental data indicating the influence of interchain exchange and rearrangement of links on molecular weight distribut'on. The number of branches per molecule according to the Zimm-Stockmayer theory cor.   ~nds to the numbers shown in the experimental data. The possibility of formati   ~tramolecular rings in branched polyarylate samples was proposed on the basis of ex   ntal data. Orig art. has: 4 figures and 7 tables.   [AM]

SUB CODE: 11,07/   'RM DATE: 13May65/   ORIG REF: 013/   OTH REF: 009/

Card 1/1   UDC: 678.01:53 + 678.647

TIMOFEYEVA, G.I.; PAVLOVA, S.A.; KORSHAK, V.V.; Prinimala uchastiye: BRAGINA, T.P., laborant

Effect of the method of synthesis on the structure of polyarylate molecules based on 2,2-bis-(4-hydroxyphenyl)propane and isophthalic acid. Vysokom.soed. 7 no.7:1208-1213 Jl '65.   (MIRA 18:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

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

Effect of the method of preparation and the size of the side chain radical on the molecular weight distribution of polyarylates. Vysokom. soed. 7 no.8:1436-1441 Ag '65.   (MIRA 18:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

PAVLOVA, S.A.; PAKHOMOV, V.I.; TVERDOKHLEBOVA, I.I.

Cyclolinear polyphenylsiloxane. Vysokom. soed. 6 no.7:1275-
1280 Jl '64   (MIRA 18:2)

Properties of solutions and the structure of polyphenylsiloxane.
Ibid.:1281-1285

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

TIMOFEYEVA, G.I.; DUBROVINA, L.V.; KORSHAK, V.V.; PAVLOVA, S.A.

Viscosimetric properties of polyarylates. Vysokom. soed. 6
no.11:2008-2010 N '64
(MIRA 18:2)

Molecular weight distribution of polyarylates. Ibid.:2011-2014

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

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

Influence of the steric factor on the viscosimetric properties and polydispersity of polyarylates. Dokl. AN SSSR 160 no 1:1. 9-1
Ja '65.   (MIRA 18:

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

L 10377-65   EWT(1)/EPA(s)-2/EWG(k)/EWT(m)/EPF(c)/EWP(j)/T   Pc-4/Pz-6/Pr-4/Pc-10

TJP(c)/AFWL/SSD   AT/RM

S/0190/64/006/010/1848/1851

ACCESSION NR: AP4047215

AUTHOR: Val'kovskiy, D. G.; Sosin, S. L.; Korshak, V. V.;
Pavlova, S. A.

TITLE: Polydispersity and chain structure of polyphenylmethylene

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 10, 1964,
1848-1851, and top half of insert facing p. 1850

TOPIC TAGS: polydispersity, chain structure, polyphenylmethylene,
organic semiconductor, fractionation, molecular weight, intrinsic
viscosity, semiconducting polymer

ABSTRACT: A study has been made of the fractional composition of
polyphenylmethylene (PPM) and of the relationship between the mole-
cular weight (M) and the intrinsic viscosity [n] of fractionated
PPM. Previously prepared PPM was fractionated by means of precipi-
tation by addition of a nonsolvent. The intrinsic viscosity and
molecular weight were determined for each fraction by light scatter-
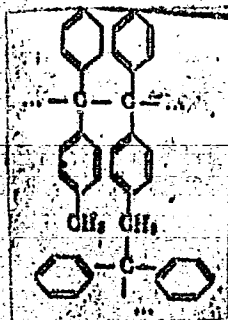ing. PPM showed considerable polydispersity when the Mw/Mn ratio was

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ACCESSION NR: AP4047215

43. The relation between [η] and M fitted the formula:

$$[\eta] = 3.93 \times 10^{-3} \times M^{0.325}.$$

The small value of the exponent of M suggested that PPM chains are branched as follows:

Branching was assumed to result in loose macromolecular packing. This was confirmed by x-ray patterns and a thermomechanical curve

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ACCESSION NR: AP4047215

showing the absence of crystallivity and high-elastic deformation. Orig. art. has: 4 figures, 1 table, and 3 formulas.

ASSOCIATION: Institut elementoorganicheskikh soyedinenly AN SSSR (Institute of Organoelemental Compounds, AN SSSR).

SUBMITTED: 13Dec63   ATD PRESS: 3119   ENCL: 00

SUB CODE: OC, SS   NO REF SOV: 008   OTHER: 004

Card 3/3

SOBOLEVA, T.A.; SUPRUN, A.P.; PAVLOVA, S.A.

Polydispersity of polymers of 1,1,2-trichloro-1,3-butadiene.
Vysokom. soed. 6 no.1:89-91 Ja'64.   (MIRA 17:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

PAVLOVA, S.A.; SOBOLEVA, T.A.; SUPRUN, A.P.

Viscosity and molecular weight of polytrichlorobutadiene.
Vysokom. soed. 6 no.1:122-124 Ja'64.   (MIRA 17:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ACCESSION NR: AP4042189   S/0190/64/006/007/1275/1280

AUTHOR: Pavlova, S. A., Pakhomov, V. I., Tverdokhlebova, I. I.

TITLE: Cyclolinear polyphenylsiloxanes

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 7, 1964, 1275-1280

TOPIC TAGS: siloxane, polyphenylsiloxane, benzene, toluene, xylene, dinil, cyclolinear polymer, phenyltrichlorosilane, infrared spectrum, polymer structure

ABSTRACT: Polyphenylsiloxanes obtained by condensation of the hydrolysis products of phenyltrichlorosilane in four solvents (benzene, toluene, xylene and dinil) were investigated by infra-red spectroscopy. All four polyphenylsiloxanes were found to have the same cyclo-linear structure predicted by Brown, et al. (J. Amer. Chem. Soc., 82, 6194, 1960). The molecular weight of the polymer was 4.1 x 10⁶. The effect of the reaction medium on the mechanical properties, the degree of polymolecularity and the structural homogeneity of polyphenylsiloxanes was studied in detail. The four test samples were fractionated from 0.5% benzene solution with methanol at 20C. Infrared spectra were then taken for all four polymers, their thermal properties were studied and the molecular weight was determined by light diffusion. The molecular weight distribution curves are plotted. The polymers were found to be rather stable during fractionation. The infrared spectra show that the

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ACCESSION NR: AP4042189

four polymers have almost the same structural elements, with bands at 1000-1100 cm^{-1}, corresponding to Si-O-Si-and at 1400-1500 cm^{-1} corresponding to Si-C$_6$H$_5$. The mechanical properties of the polymers were not affected by the solvent. All four polyphenyl siloxanes had a very high glass temperature (T$_c$=300C). The close T$_c$ values for the poly-phenylsiloxanes show that the conditions of preparation do not significantly affect the struc-ture. The reaction conditions also do not significantly affect the polydispersity of polyphenyl-siloxanes. The degree of polymolecularity and the average molecular weight of the poly-phenylsiloxanes increased, depending on the solvent used, in the order benzene-toluene-xylene-dinil. A mechanism for the formation of these polyphenylsiloxanes is proposed. Orig. art. has: 3 figures, 1 table and 3 structural formulas.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Organo-metallic Compounds, SSSR)

SUBMITTED: 08Aug63

ENCL: 00

SUB CODE: OC   NO REF SOV: 001   OTHER: 001

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Card

S/0190/64/006/007/1281/1285

ACCESSION NR: AP4042190

AUTHOR: Pavlova, S. A., Pakhomov, V. I., Tverdokhlebova, I. I.

TITLE: The structure of polyphenylsiloxane and the properties of its solutions.

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 7, 1964, 1281-1285

TOPIC TAGS: polyphenylsiloxane, benzene, toluene, xylene, dinil, Mark-Houwink equation, polymer fractionation, light scattering, refractive index, polydimethylsiloxane, polyisobutylene, polymer structure, polymer viscosity, cyclolinear polymer, polymer rigidity

ABSTRACT: Viscosimetric and optical studies on polyphenylsiloxanes in dilute and very dilute solutions of benzene, toluene, xylene and dinil showed that the solvent affects only the molecular weight of the polymer. At a molecular weight ranging from 10,000 to 50,000, the viscosity of the polymer in solution is described by the equation $\eta = 1.305 \times 10^{-7} \, M^{1.29}$, indicating that this polymer consists of short, rod-shaped molecules. From 50,000 to 2,700,000 the Mark-Houwink equation assumes the form $\eta = 1.93 \times 10^{-4} M^{0.634}$, i.e., the molecules of the polymer are so long that they assume the form of a coil. For all fractions of polyphenyl-siloxane, the molecular weight was measured in benzene by light diffusion at an angle of 90,

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Card

KORSHAK, V.V.; FRUNZE, T.M.; PAVLOVA, S.A.; KURASHEV, V.V.

Heterochain polyamides. Part 35: Change in the rate of interfacial
condensation and of fractional composition of
polyhexamethyleneadipamide. Vysokom.soed. 5 no.8:1130-1134 Ag
'63.   (MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
                    (Adipamide) (Polymerization)

RAFIKOV, Sagid Raufovich; PAVLOVA, Sil'viya Aleksandrovna;
TVERDOKHLEBOVA, Iraida Ivanovna; KORSHAK, .V., otv. red.;
LOSKUTOVA, I.P., red.; LOROKHINA, I.N., tekhn. red.

[Methods for determining the molecular weights and poly-
dispersity of macromolecular compounds] Metody opredele-
niia molekuliarnykh vesov i polidispersnosti vysokomole-
kuliarnykh soedinenii. Moskva, Izd-vo AN SSSR, 1963.
334 p.   (MIRA 16:10)
  (Macromolecular compounds) (Colloids) (Molecular weights)

TVERDOKHLEBOVA, I.I.; PAVLOVA, S.A.; RAFIKOV, S.R.

Properties of solutions as dependent on the structure of polymers. Report No. 4: Solutions of polyphenylaluminosiloxanes. Izv.AN SSSR.Otd.khim.nauk no.3:488-493 Mr '63.   (MIRA 16:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
                (Siloxanes)   (Polymers)

RAFIKOV, S.R.; ANDRIANOV, K.A.; PAVLOVA, S.A.; TVERDOKHLEBOVA, I.I.

Polyorganotitanosiloxanes in solutions. Izv. AN SSSR.Otd.khim.nauk
no.9:1581-1584 S '62.   (MIRA 15:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
      (Titanium organic compounds)   (Siloxanes)

40729

15.8.70

S/062/62/000/009/005/009
B119/B186

AUTHORS: Rafikov, S. R., Andrianov, K. A., Pavlova, S. A.,
Tverdokhlebova, I. I., and Pichkhadze, Sh. V.

TITLE: Study of polyorganotitanosiloxanes in solutions

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh
nauk, no. 9, 1962, 1581 - 1584.

TEXT: Poly-bis-(acetyl acetonate)titanophenyl methyl siloxane was produced
by cohydrolyzing methyl phenyl dichlorosilane with bis-(acetyl acetonate)
dichlorotitanium according to the reaction scheme
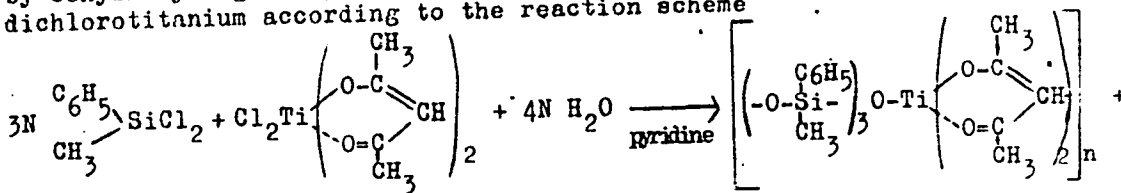
8N HCl. The reaction product was obtained by fractional precipitation
from a 20 % solution in benzene n-heptane (1:1). The individual fractions

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ACCESSION NR AM4016117   BOOK EXPLOITATION   S/

Rafikov, Sagid Raufovich; Pavlova, Sil'viya Aleksandrovna; Tverdokhlebova
    Iraida Ivanovna

Methods of determining molecular weights and the polydispersion of high molecular
    weight compounds (Metody* opredeleniya molekulyarny*kh vesov i polidispersnosti
    vy*sokomolekulyarny*kh soyedineniy), Moscow, Izd-vo AN SSSR, 1963, 334 p.
    illus., biblio. Errata slip inserted. 5,000 copies printed. Sponsoring
    Agency: Akademiya nauk SSSR. Institut elementoorganicheskikh soyedineniy.

TOPIC TAGS: high molecular compound, molecular weight, diffusion, light diffusion,
sedimentation, osmometry, ebullioscopy, crioscopy, end group, viscosimetry

TABLE OF CONTENTS [abridged]:

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RAFIKOV, S.R.; PAVLOVA, S.A.; TVERDOKHLEBOVA, I.I.

Dependence of solution properties on polymer structure. Part 3:
Solutions of polydimethylsiloxane. Vysokom. soed. 2 no. 12:1786-
1793 D '60.
                                                       (MIRA 14:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
        (Siloxanes)   (Polymers)

L 37634-66   ENT(d)/ENT(m)/ENP(w)/ENP(v)/T/ENP(t)/ETI/ENP

ACC NR: AP6015036 (N)   SOURCE CODE: UR/0125/66/000/004/0013/0017

AUTHORS: Malinochka, Ya. N.; Pavlova, S. D.; Slin'ko, L. A.

ORG: Dnepropetrovsk Institute of Iron Metallurgy (Dnepropetrovskiy institut chernoy
metallurgii)

TITLE: Structure and properties of welded seams in low alloy steel pipes

SOURCE: Avtomaticheskaya svarka, no. 4, 1966, 13-17

                weld evaluation, welding technology,
TOPIC TAGS: metal welding, seam welding, metal property, alloy steel / 14KhGS alloy
steel, 17GS alloy steel, 14GN alloy steel

ABSTRACT: The structure and properties of welded joints were investigated before and
after heat treatment to determine the reasons for cracking of welded joints in 1020-
mm diameter steel pipes made of 14KhGS, 17GS, and 14GN steel. Photographs of the
weld microstructures are presented for various conditions of heat treatment, and the
strength properties of the base metal under various temperature conditions were
determined. A considerable amount of martensite is formed in the seam, increasing
its strength and hardness but decreasing its plasticity. Cracks are formed during
expansion of the pipe under low temperature conditions, and these grow along
interaxial dendrite portions of the weld. These cracks can be prevented by tempering
of the welded seam at 450—500C. N. M. Yan and E. E. Novikov helped with the
experimental work. Orig. art. has: 6 figures.

SUB CODE: 13/   SUBM DATE: 18Dec65/   ORIG REF: 003
Card 1/1 vmb   UDC: 621.791.004.12:669.15-194