

ZHEREBTSOV, G.P., inzhener; PETRASHEVICH, A.I., inzhener.

Cementation of a blast furnace foundation. Sbor.mat.o nov.tekh.v  
stroi. 15 no.10:9-11 '53. (MIRA 6:12)  
(Foundations) (Concrete construction)

PETRASHEVICH, A.M., inzh.

Manufacture of parquet in accordance with the All-Union State  
Standard 862-60 with the PARK-1 and PARK-2 machines. Der.  
prom. 13 no.6:23 Je '64. (MIRA 17:6)

1. Rechitskiy fanerno-mebel'nyy kombinat.

RESEARCH AND DEVELOPMENT

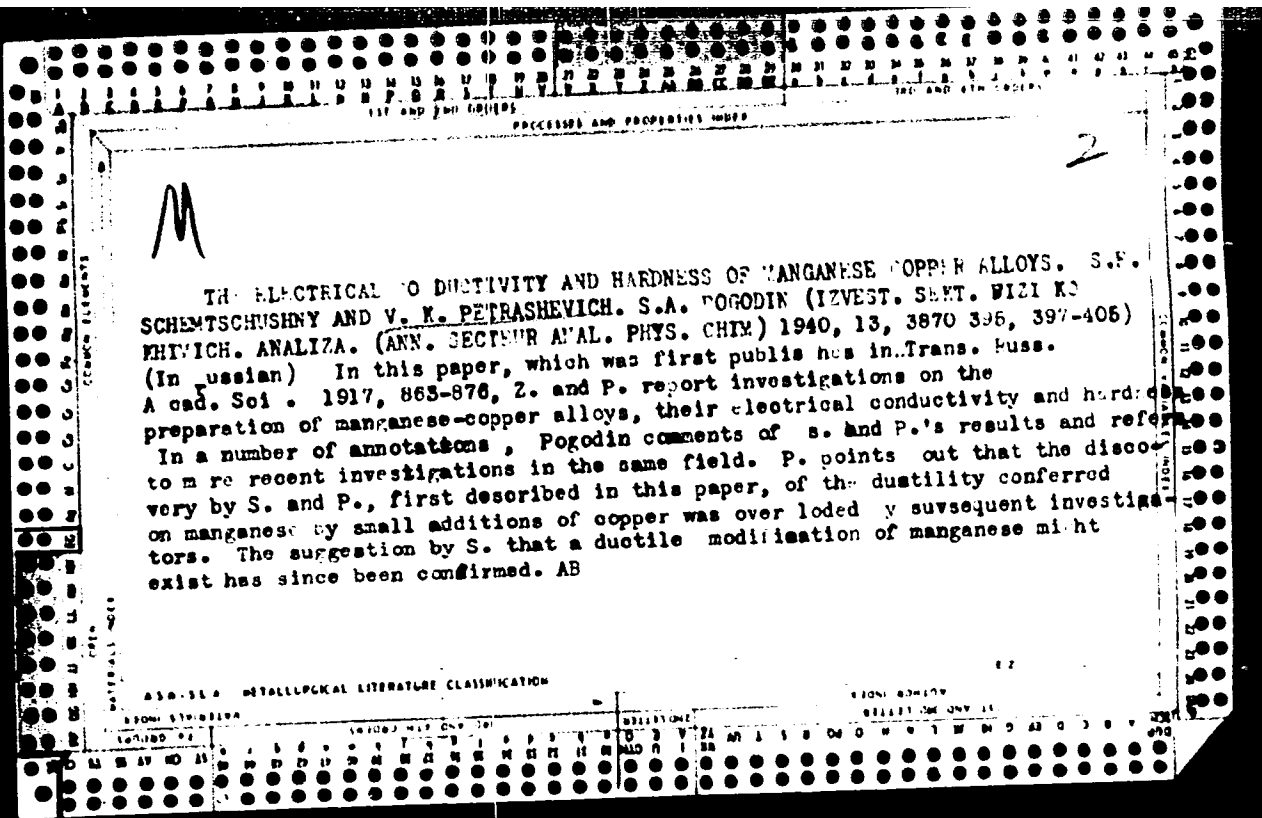
9

*CA*

**Conductivity and hardness of manganese copper alloys**  
 S. F. Shanchukhin and V. K. Petrashevich. *Izv. Akad. Nauk SSSR, Ser. Fiz. Khim. i Mekh.* 1964, No. 12, 387-395 (1964). Ac reprint (C. I. 12, 358). S. A. Pogodin  
*Ibid.* 387-405. More recent advances are reviewed. R C P A

METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KK KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LL LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VV VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WU WV WW WX WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YY YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ
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MULTATOVA, N.N.; BATYREVA, A.A., kand. biol. nauk; PETRASHEVSKAYA, M.M.,  
kand. med. nauk; SHTEYNBUKH, N.V., kand. med. nauk

Diagnosis and clinical aspects of toxoplasmosis in women with  
complicated obstetrical anamnesis. Akush. i gin. no.1:133-  
136 '65. (MIRA 18:10)

1. Rostovskiy-na-Donu nauchno-issledovatel'skiy institut  
akusherstva i pediatrii (dir.- kand. med. nauk F.S. Baranovskaya).

PETRARU HELLER, C. ; MINCULESCU, A.

Modern technical methods for the reduction of the specific consumption of raw materials and auxiliary materials. p .59.

INDUSTRIA USOARA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania si Departamentul Industriei Usoare din Ministerului Industriei Bunurilor de Consum) Bucuresti, Romania. Vol. 6, no. 2, Feb. 1959.

Monthly List of East European Accessions (EEAI) IC, Vol. 8, no. 7, July 1959

Uncl.

PETRASCU, M.; MIHUL, A.

Fission of  $U^{238}$  under the action of  $\mu^-$  mesons. p. 465.

STUDII SI CERCETARI DE FIZICA. (Academia Republicii Populare Romine.  
Institutul de Fizica.) Bucuresti, Rumania. Vol. 9, no. 4, 1958.

Monthly List of East European Accessions (EEA1) LC, Vol. 8, no. 7, July, 1959.

Uncl.

PETRASHEN', G.I.

Brief program of theoretical and experimental research as a basis  
for work in 1953-1956. Vop.din.teor.raspr.seism.v.ln. no.2:15-36  
'59. (MIRA 13:5)  
(Leningrad--Seismological research)



PETRASHEVSKAYA, G.F.

Adenoma of the islands of Langerhans. Vest.khir. 75 no.4:124-127  
M<sub>y</sub> '55. (MLRA 8:8)

1. Iz khirurgicheskogo otdeleniya (zav.-G.F.Petrashevskaya) bol'-  
nitsy No.2 Nevskogo rayona g. Leningrada. Leningrad 131, Ivanov-  
skaya ul., d. 6, kv. 27.

(ISLAND OF LANGERHANS, neoplasms,  
adenoma, surg.)

4

PETRASHEVSKAYA, N. N.

"Clinical Aspects, Course, and Treatment of Borov's Disease in the Region of the Eyes." Cand Med Sci, Rostov-on-Don State Medical Inst, Rostov-on-Don, 1955. (KL, No 16, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

PETRASHEVSKIY, R.I., inzh.

Using soil cement for road construction in White Russia. Avt.  
dor. 28 no.1:6-7 Ja '65. (MIRA 18:3)

PETRASHKAITE, J.K.

Category: USSR/General Biology. General Physiology, Biochemistry  
and Biophysics.

B-1

Abs Jour: Referat Zh.-Biol., No 6, 25 March 1957, 21430

Author : Khesin, R.B., Petrashkaite, J.K.

Inst : not given

Title : Protein synthesis in incubation of cytoplasmic granules  
isolated from liver cells.

Orig Pub: Biokhimiya, 1955, 20, No 5, 597-609

Abstract: In connection with the problem of the place of protein synthesis in cells and of the role of different intercellular components in this process, the total quantity of protein is determined in incubation of cytoplasmic granules isolated from rat liver cells. The quantity of protein was determined by the biuret reaction intensity, dry weight of purified protein and protein nitrogen. In the majority of experiments rat liver was utilized, regenerated after partial hepatectomy.

Card : 1/3

-6-

Card : 2/3

-7-

PETRASHKAYTE, S.K. [Petraskaito, S. ]

Effect of actinomycin on the protein synthesis in large cyto-  
plasmic granules and microsomes of the rat liver. Biokhimiia  
30 no. 3:551-558 My-Je '65 (MIRA 19:1)

1. Kafedra biokhimii Kaunasskogo meditsinskogo instituta,  
Kaunas.

*PETRAUSKAYTE, S.K.*

**KHESIN, B.B.; PETRASHKAYTE, S.K.; TOLYUSHIS, L.B.; PAULASKAYTE, K.P.**

Protein synthesis in isolated cytoplasmic granules [with summary in English]. Biokhimiia 22 no.3:501-515 My-Je '57. (MIRA 10:11)

1. Kafedra biokhimii Kaunasskogo gosudarstvennogo meditsinskogo instituta.

(PROTOPLASM,

synthesis of proteins in isolated cytoplasmic granules)

(PROTEINS, metabolism,

synthesis in isolated cytoplasmic granules (Rus))

PETRASHKAYTE, S.K.

✓ Protein synthesis during the incubation of cytoplasmic granules isolated from liver cells. R. B. Khesin and S. K. Petrashkalte (State Med. Inst., Kaunas). *Biokhimiya* 20, 507-509 (1955).—Livers of white rats were perfused with physiol. saline to remove all blood, weighed, and homogenized in a Krebs-Ringer bicarbonate soln. in which the  $\text{Na}^+$  was replaced by  $\text{K}^+$ , and the  $\text{Ca}^{++}$  was eliminated and the cytoplasmic granules removed by repeated appropriate cold centrifugation and saline resuspension. The finally freed cytoplasmic granules were resuspended in the same type of Krebs-Ringer soln. and 0.5 ml. of this placed into a series of each of test tubes to which was added an appropriate selection of amino acids, 0.2-0.4 ml. protein-free medium previously incubated with suspended mitochondria, and modified Krebs-Ringer soln. to make 1.0 ml. Test tubes were incubated at 23-30° for 30 min. after which were added 0.5 ml.  $\text{H}_2\text{O}$  and 1 ml. 50%  $\text{ZnCl}_2\text{CO}_3\text{H}$  and thoroughly mixed and coagulated proteins centrifuged down. The biuret reaction was used for the detn. of the synthesized proteins by the following special procedure: pptd. protein in tubes was clarified by the addn. of alc. and centrifuged down. To the sediment were added 0 ml. of 0.2N NaOH, incubated for 60 min. with shaking until sediment completely dissolved, 2 ml. of soln. was then added contg.  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$  (0.75%), Na tartrate (2.25%), and KI (1.25%) in 0.2N NaOH.

This was again incubated at 30° for 30 min. during which time the color development was completed. Tests were recorded photometrically by means of a green water filter. Results of photometric readings were converted to protein values with the aid of specially constructed standard nomographs. Results indicated that cytoplasmic granules incubated with appropriate amino acid mixts. can synthesize proteins only in the presence of substances previously elaborated by mitochondria. In the absence of appropriate amino acids the protein synthesis is sharply impeded. Such protein synthesis is most intensive when cytoplasmic granules of younger and more vigorously regenerating liver cells are used. Light, large granules isolated from cytoplasmic cells of the regenerating liver, likewise, synthesize proteins at a rate higher than do the microsomes isolated from the same tissue. In the case of normal liver tissue the synthesis of protein by the light large granules and the microsomes proceeds at the same rate. It was also corroborated that in the cells of the liver are present specific cytoplasmic granules which differ from mitochondria and microsomes. These granules are analogous to maturing zymogen granules of exocrine cells of the pancreas. It is believed that the function of these granules is to synthesize protein within the cells.

B. S. Levine

PETRASHKEVICH, A., izobretatel' (g.Grodno)

These difficulties should be eliminated. Izobr.i rats. no.2:24 P  
'60. (MIRA 13:8)

(Technological innovations)



PETRASHKEVICH, Galina Kharitonovna KATSYUSHYN, M.S., red.

[27 years on a livestock farm] 27 let na kollektivnoi ferme.  
Minsk, Dz arzh. vyed-va sel'skohan, akademi lit-ry BSSR,  
1963. 41 p. (MIRA 198)

PETRASHKEVICH, Galina Kharitonovna [Petrashkevich, H.K.]; KATSYUSHYN,  
M.S., red.; ZEN'KO, M.M., tekhn. red.

[Twenty-five years on a livestock farm] 27 hadou na  
kalhasnai ferme. Mirsk, Dziarzh.vyd-va sel'skhaspadar-  
chai lit-ry BSSR, 1963. 41 p. (MIRA 17:1)

L 45711-66 EWT(m)/ELP(j) RM  
 ACC NR: AP6024393

SOURCE CODE: UR/0020/66/169/002/0335/0338

AUTHOR: Braynina, E. M.; Mortikova, Ye. I.; Petrashkevich, L. A.; Freydina, R. Kh.  
 (Corresponding member AN SSSR)

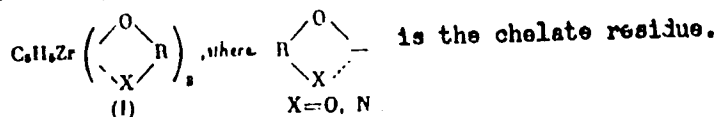
ORG: Institute of Organometallic Compounds, Academy of Sciences, SSSR (Institut  
elementoorganicheskikh soyedineniy Akademii nauk SSSR)

TITLE: New class of cyclopentadienyl zirconium compounds containing chelate groups

SOURCE: AN SSSR. Doklady, v. 169, no. 2, 335-338

TOPIC TAGS: organozirconium compound, chelate compound

ABSTRACT: The paper describes several variants for the synthesis of a series of representatives of a heretofore unknown class of organozirconium compounds containing one cyclopentadienyl (or methylcyclopentadienyl) and three chelate groups:



Apparently, the electron configuration of xenon has been successfully achieved for zirconium in these compounds for the first time. The most generally applicable method for synthesizing this class of compounds consists in reacting tetracyclopentadienyl-

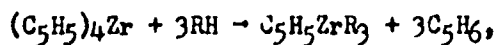
Card 1/2

UDC: 247.255.31

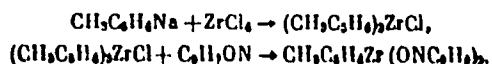
L 45711 60

ACC NR: AP6024393

zirconium with chelate-forming compounds such as 8-hydroxyquinoline, acetylaceton, benzoylaceton and dibenzoylaceton. The reaction takes place rapidly under mild conditions and gives good yields:



where R = C<sub>9</sub>H<sub>5</sub>ON; C<sub>5</sub>H<sub>7</sub>O<sub>2</sub>; C<sub>10</sub>H<sub>9</sub>O<sub>2</sub>; C<sub>15</sub>H<sub>11</sub>O<sub>2</sub>. Another synthesized compound was tris(8-hydroxyquinolate)methylcyclopentadienylzirconium:



The compounds were monomeric, fusible, and stable toward hydrogen. Their IR spectra were analyzed.

SUB CODE: 07/ SUBM DATE: 11Dec65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 ULR

SHCHERPAK, V.M.; SELETSKIY, T.M. [Selets'kiy, T.M.]; PETRASHKEVICH, M.A.  
[Petrashkevych, M.I.]; TRUSHKEVICH, R.T.

Thermal waters in the Carpathians. Geol. zhur. 22 no. 5:66-69  
'62. (MIRA 15:12)

1. Trest "L'vovneftegasrazvedka", Ukrainskiy nauchno-issledovatel'skiy  
gornorudnyy institut i L'vovskaya geologo-razvedochnaya kontora.  
(Carpathian Mountains--Thermal waters)

VARSHAVSKIY, D.S., inzh.; LANTSEV, A.G., inzh.; SHOFMAN, O.S., inzh.;  
PETRASHKEVICH, N.I., inzh.

Power factor increasing KMV and KSV-series condensers.  
Vest. elektroprom. 33 no.5:56-61 My '62. (MIRA 15:5)  
(Ust'-Kamenogorsk--Electric equipment industry)  
(Condensers (Electricity))

PETRASHKEVICH, M.I.; VOLOSHCHAK, Ya.A.; GURIDOV, A.I. [Huridov, A.I.];  
~~DEMCHUK, N.N.~~ [Demchuk, N.M.]

Geological structure of the Transcarpathian region in the  
light of new borehole data. Dop.AN URSR no.4:517-519 '61.  
(MIRA 14:6)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy  
institut. Predstavleno akademikom AN USSR V. G. Bondarchukom.  
(Transcarpathia—Geology, Stratigraphic)

VYALOV, G.S., akademik; PISEVANOVA, L.S.; PETRASHEVICH, M.I.  
[Petrashevych, M.I.; GRISHNEVICH, G.N. [Aryshkevych, H.M.]]

Stratigraphic pattern of the Transcarpathian Miocene. Dop.  
AN URSR no.10-1338-1341 '61. (MIRA 14:11)

1. Institut geologii korisnikh kopaln AN URSR i UkrDNGRU.
2. Akademik AN URSR (for Vyalov).  
(Transcarpathia. Geology, Stratigraphic)



PETRASHKEVICH, M.I. [Petrashkevych, M.I.]; GURIDOV, A.I. [Huridov, A.I.]

Lower and middle Miocene stratigraphy of the Transcarpathian  
Depression. Dop. AN URSSR no.12:1629-1633 '61. (MIRA 16:11)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy  
institut. Predstavleno akademikom AN UkrSSR V.G. Bondarchukom  
[Bondarchuk, V.H.].

VYALOV, O.S.; PISHVANOVA, L.B.; PETRASHKEVICH, M.I.; GRISHKEVICH, G.N.

Miocene stratigraphic scale of Transcarpathia. *Byul.MOIP.Otd.*  
geol. 37 no.5:69-79 S-O '62. (MIRA 15:12)  
(Transcarpathia--Geology, Stratigraphic)

PETRASHKEVICH, M.I.

Miocene reef formations in Transcarpathia. Dop. AN URSR no.8:  
1079-1081 '65. (MIRA 18:8)

1. Ukrainskiy nauchno-issledovatel'skiy gornorudnyy institut.

PETROCHENKO, P.F.; SHAPIRO, I.I.; MIKHAYLOV, D.V., inzh.; MOSINA, T.S.,  
inzh.; PETRASHKO, A.S., inzh.; KHISIN, R.I., inzh., red.;  
GORDEYEV, L.P., tekhn.red.; CHERNOVA, Z.I., tekhn.red.

[Time-norms used in the machinery industry for technical  
normalization of operations on shapers and slotters; small-lot  
and piece production] Obshchemashinostroitel'nye normativy  
vremeni dlia tekhnicheskogo normirovaniia rabot na strogal'nykh  
i dolbeznykh stankakh; melkuseriinoe i edinichnoe proizvodstvo.  
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959.  
46 p. (MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. Tsentral'-  
noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzh.  
Tsentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-  
issledovatel'skom institute truda (TsBPNT) (for Petrochenko). 3. Za-  
veduyushchiy otdel on mashinostroyeniya Tsentral'nogo byuro pro-  
myshlennykh normativov po trudu pri Nauchno-issledovatel'skom insti-  
tute truda (for Shapiro). 4. Tsentral'noye byuro promyshlennykh  
normativov po trudu pri Nauchno-issledovatel'skom institute truda  
(for Mosina, Petrashko).  
(Metal cutting)

PETRASHEU, M. G., *Cond Phys-Math Sci (diss)* -- "The mechanism of fission of the nuclei of U-238 and Th-232 with negative  $\mu$ -mesons". Dubna, 1960. 8 pp  
(Joint Inst of Nuclear Investigations, Laboratory of Nuclear Problems), 160 copies (KI, No 14, 1960, 126)

21(7)

SOV/20-126-3-17/52

AUTHORS: Petrashku, M. G., Mikhul, A. K.

TITLE: The Fission of  $\text{Th}^{232}$  Nuclei by Negative  $\mu^-$ - and  $\pi^-$ -Mesons (Dele-  
niye yader  $\text{Th}^{232}$  otritsatel'nyimi  $\mu^-$ - i  $\pi^-$ -mezonami)PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4,  
pp 752 - 754 (USSR)

ABSTRACT: In the introduction, two kinds of fission of heavy nuclei by  $\mu^-$ -mesons are described: 1) The nucleus is excited in the optical transition  $2p - 1s$  of a  $\mu^-$ -meson in the mesic atom if the transition energy exceeds the photofission threshold. 2) Absorption of a meson by the nuclear nucleons according to the reaction  $\mu^- + p \rightarrow n + \gamma$ . D. F. Zaretskiy focused attention upon the radiation-free excitation according to the first method. The aim of the present paper is stated to be the investigation of the fission of thorium by  $\mu^-$ - and  $\pi^-$ -meson capture. The investigation methods and the irradiation by  $\mu^-$ - and  $\pi^-$ -mesons are explained, after which experimental results are discussed. First, fission of thorium by  $\pi^-$ -meson capture is dealt with. 11075 stops were observed, and the

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The Fission of  $\text{Th}^{232}$  Nuclei by Negative  $\mu^-$ - and  $\pi^-$ -Mesons SOV/20-126-1-17/62

distribution of 2847  $\sigma$ -stars is given. By comparison with other data, the fraction of  $\mu^-$ -mesons in the present case is estimated as amounting to 15%. The fission of thorium in  $\mu^-$ -meson capture was investigated in the case of 11270 stops. For both kinds of fission the path length is given, and in the course of the discussion of results, the probability of the capture of mesons by thorium is calculated according to Fermi-Teller. It was further found that the ratio of fission probabilities of thorium and uranium is equal to the ratio of the corresponding cross sections of photofission. The probability of the fission of thorium by  $\mu^-$ -mesons is dealt with last and the ratio of the probabilities of radiation-free excitation and that of the emission of a  $\gamma$ -quantum in the transition  $2p - 1s$  is given as amounting to

$\frac{W_0}{W_\gamma} = 0.1 \pm 0.07$ . The authors thank Professors Kh. Khulubey, V. P.

Dzhelepov, B. M. Pontekorvo, V. M. Sidorov, A. Ye. Ignatenko, and S. Ionescu for their constant interest in this investigation and for their advice, and he further thanks M. N. Antonova and L. K. Vasilenko for their help in checking the films.

Card 2/3

The Fission of  $\text{Th}^{232}$  Nuclei by Negative  $\mu$  - and  $\pi$ -Mesons SOV/20-126-4-17/62

There are 10 references, 5 of which are Soviet.

ASSOCIATION: Ob'yedinenny institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

PRESENTED: February 10, 1959, by V. I. Veksler, Academician

SUBMITTED: January 24, 1959

Card 3/3



**KHRSIN, R.B.; PETRASKAITE, S.K.**

Synthesis of protein during incubation of cytoplasmatic granules  
isolated from liver cells. Biokhimiia 20 no.5:597-609 S-0 '55.  
(MIRA 9:3)

1. Kafedra biokhimii Kaunasskogo gosudarstvennogo meditsinskogo  
instituta.

(PROTEINS, metabolism,  
liver, synthesis during incubation of cytoplasmatic  
granules isolated from liver cells)

(LIVER, metabolism,  
proteins, synthesis during incubation of cytoplasmatic  
granules isolated from liver cells)

GORETSKIY, V.A.; PETRASHKEVICH, M.I.; GURIDOV, A.I.; DEMCHUK, N.N.;  
VOLOSHCHAK, Ya.A.

Stratigraphy of the lower Miocene of the Solotvin depression in  
Transcarpathia. Nauch.dokl.vys.shkoly; geol.-geog. nauki no.2:  
116-120 '58. (MIRA 12:2)

1. L'vovskiy universitet, geologicheskiy fakul'tet.  
(Transcarpathia--Geology, Stratigraphic)

PETRASHKEVICH, M. I.

KUL'CHITSKIY, Ya.O.; PETRASHKEVICH, M.I.; KHLOPONIN, K.L.

Stratigraphy of the Eocene of the Utesov zone in the East  
Carpathians. Dokl. AN SSSR 115 no.2:365-367 J1 '57. (MIRA 10:12)

1. Ukrainskoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo  
geologorazvedochnogo neftyanogo instituta. Predstavleno akademikom  
N.M. Strakhovym.  
(Carpathian Mountains--Geology, Stratigraphic)

PETRASHKEVICH, M.I.

20-2-47/62

AUTHOR  
TITLEKUI'CHITSKIY, Ya.O., PETRASHKEVICH, M.I., KHLOPCHIN, K.L.  
The Stratigraphy of the Senone of the Klippen' Zone of the East  
Carpathians.

PERIODICAL

Doklady Akad.Nauk SSSR, 1957, Vol 115, No 2, pp 365-367 (U.S.S.R.)

ABSTRACT

In spite of a great number of investigations, the conceptions of the geological structure of the "Klippen" zone are by no means complete. This concerns the study of the stratigraphy of Cretaceous and Paleogene sediments which envelop the denuded cliffs of the Jurassic and were given the name of "cliff cover" by Austro-Hungarian geologists already in the last century. In recent years the interest in the stratigraphic problems of these sediments considerably increased in connection with an increase in the number of geological papers on the discovery of useful rocks. The Carboniferous is here represented by not very thick terrigenous deposits of limestone. They often have no rhythm proper to flysh. Frequent interruption of sedimentation is characteristic. They consist of Alb-Senomanous rocks and Pukhov Marl of the Senone period discordantly covering them. The latter only occur in the region of the Klippen zone. The Paleogenic is composed of a thick stratum of sandy-clayish flysh rocks. They discordantly lie on Cretaceous as well as on Triassic-Jurassic deposits or even directly on old crystalline rocks (village of Kobyletskaya Poljana) of the Marmarosh massif. The lower part of the Paleogenic is represented by thick-layer, more seldom by massive sandstones. They were either included in the Upper-Cretaceous Paleocene or set apart as a "L'ytash"

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The Stratigraphy of the Locene of the "Eigen" no. 21 20-2-47/62  
the East Carpathians.

suite. Its age was never factually founded. According to Lasla, these  
sandstones lie on the Puhkov suite of the Kampen and Maastricht  
period. Everywhere above them are deposited colored rocks with for-  
aminifera of from Lower to Upper Eocene. According to the authors' in-  
vestigations, Paleocene deposits are absent in the region of the Ste-  
sov zone, due to an interruption in sedimentation. The Paleocene here  
is represented by Middle and Upper Eocene rocks (sandy-clay and silty).  
The beginning of their formation coincides with a great transgression  
of the sea in the Middle Eocene epoch. The initial stadium is charac-  
terized by a 500-600 m thick stratum of sand which, according to its  
outward lithological appearance, was mistaken for the Lyutov suite.  
The denudations are restricted to the southern part of the Klippen zone  
and can well be traced in a series of cross sectional areas. They con-  
sist of alternating deposits of thick-layer and massive sandstones  
with thin intermediate layers of aleuroliths or argillites. The dia-  
stic material is extremely ill-sorted. Quartz plays an important part.  
The cement on the whole is of a covering-swelling type predominant-  
ly of carbonate composition. In the gray and bluish-gray aleuroliths  
seldom occur semi-porous clayish units with charred plant fossils. In  
the lower part numerous bio- and mechano-glyphic as well as Palaeodictyon  
signs are distinguishable. A great number of larger foraminifera was  
found. The Middle Eocene age is confirmed by finds of a fauna of lar-

Card 2/3

The Stratigraphy of the Eocene of the "Klippen" Zone of the East Carpathians. 20-2-47/62

ge foraminifery on the river Luzhanda. The Eocene deposits of the "Klipper" zone widely differ from those of the Magura and Krosno zones. According to lithology and the foraminifera complex they are very close to Middle and Upper Eocene rocks of the West Carpathians (Pie-nins and Tatra). The absence of the Danish stage ("dat") of the Paleocene and Lower Eocene in the Klippen zone of the Carpathian and the Tatra Mountains fully confirms the supposition that this portion was firm land for a long time. In the Luthetic epoch a great transgression began in the south which caused the formation of Middle and Upper Eocene deposits.  
(4 Slavic references).

ASSOCIATION: Ukrainskoye otdeleniye Vsesoyuznogo nauchno - issledovatel'skogo geologorazvedochnogo neft'yanogo instituta, Feb. 6, 1957

PRESENTED By STRAKHOV N.M., Member of the Academy, April 16, 1956

SUBMITTED

AVAILABLE Library of Congress

Card 3/3

PETRASHOVICH, N. G.

26(5)  
APPENDIX:  
1) Podator, S. Z., 2) Larov, G. V., 3) Lohus, A. A.,  
4) Sokolov, I. I., 5) Erichover, A. S., Litovskis, S. D.,  
Petrashevich, N. G.

Here is Brief  
Zavodskaya laboratoriya, 1959, Vol. 25, Nr. 6, pp 1016-1018  
(USSR)

1) The author reports on a machine he designed for testing the friction coefficient of sliding (PCS). The machine (Fig) has an electric motor with a rotor shaft of various sizes (diameters 100-200 mm) on a rail. The rail is pressed with a ball-bearing against the wheel and is connected to a dynamometer. To investigate the PCS the author used an oscilloscope graph (Fig-2). 2) The author reports on a device for testing the adhesion of galvanized coatings by the method of tare loss. The device (Fig) is a plate with hemispherical hollows (30, 24, 22, 20, 18, 16, and 14 mm diameter (9)) on which a weight (1 kg) having a percussion pin on its end (5 - 16 mm with a hemisphere having a 3 of 5 mm in the center) is dropped from a varying height. The sample is put on this plate. According to

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the height of falling of the weight and the greater the hollow beneath it, the greater is the load and therefore the deformation of the coating. 3) The author recommends the use of a "triplet" thermostat flask for processing 5 resinous compounds with a capacity of 250 ml (Fig). 4) The author recommends the use of a gear pump with a piston in rubber laboratories when small quantities of a liquid have to be pumped (Fig). The two gears of the pump are of the type MB-100/40 (220 v, 100 v, 200 rpm). Dimensions of the pump are 65 x 110 x 30 mm. The gears are made of steel. The gears are approximately 20 mm in diameter. 5) The authors developed a universal device for the determination of greater stresses. The device consists of a motor with several balls with a diameter of 20-24 mm and a series of steel lankas (steel 5) with a thickness of 15-25 mm. One of the steel lankas serves as a standard on which the balls having the desired diameter are impressed. The pressure of 5, 10, 15, 20, 25, 30, 35, and 40 kg/cm<sup>2</sup> is installed at the spot where stress is being checked. Each ball makes an impression on the lankas under the given stress and the diameter of the impression is measured. The strength trans-

Card 2/3

mitted by the ball is calculated from a diagram (Fig). The sum of the obtained values equals the stress. There are 5 figures and 1 Soviet reference.

ASSOCIATION:

- 1) Mashinostroyeniye Institut shchelno-dorozhnykh transporta (Mashinostroyeniye Institut of Railroad Transport)
- 2) Nauchno-issledovatel'skiy Institut tekhnicheskoy avtomobil'noy promyshlennosti (Scientific Institute of Technology of the Automobile Industry)
- 3) Vsesoyuznyy nauchno-issledovatel'skiy Institut (All-Union Scientific Research Institute of Tubes)
- 4) Vsesoyuznyy nauchno-issledovatel'skiy Institut shchelno-dorozhnykh transporta (All-Union Scientific Research Institute of Railroad Transport)

Card 3/3

ANDREYEV, Aleksey Vasil'yevich [deceased]; BERKOVICH, Nikolay Yul'yevich;  
AKIMOV, T.S., retsenzent; PETRASHKIN, A.D., retsenzent; NIKITIN,  
M.N., retsenzent; KALININA, N.M., red.; LEVITSKAYA, N.N., tekhn.  
red.

[Wool weaving] Sherstokachestvo. Izd.2., perer. 1 dop. Moskva,  
Izd-vo nauchno-tekhn. lit-ry RSFSR, 1960. 465 p. (MIRA 14:10)  
(Woolen and worsted manufacture) (Looms)



AUTHORS: Epshteyn, L. A., Engineer, Petrasenko, A.I., SOV/105-58-8-5/21  
Engineer

TITLE: Synthetic Polymers in Electric Mica Insulation (Sinteticheskiye  
polimery v slyudyanyy elektricheskoy izolyatsii)

PERIODICAL: Elektrichestvo, 1958, Nr 8, pp. 21-28 (USSR)

ABSTRACT: At present insulation materials on a mica basis are used pre-  
dominantly in the insulation of high-voltage machines and  
equipment. The new synthetic organic and organosilicon polymers,  
which were newly developed in the VEI are successfully utilized  
in producing mica insulations. TGT-lacquers are classified  
among these new organic lacquers. They are products of the  
condensation of triethylene glycol, of glycerin and phthalic  
anhydride, which are modified by fatty acids of linseed oil in  
amounts reaching 10%. By an introduction of triethylene glycol  
they are rendered highly elastic. TGT-8 - lacquer is used in  
the production of elastic mica (slyudinit) for the slot  
insulation of low-voltage machines. If organic lacquers are  
used in insulation material, the high thermal properties of the  
mica and glass bases cannot be utilized. Hence, the weak point  
in mica insulation materials is the organic binding substance,

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Synthetic Polymers in Electric Mica Insulation

SOV/105-58-8-5/21

as it only permits working temperatures not exceeding 130°C. Organosilicon resins developed newly in the USSR permit a maximum temperature of from 180-200°C. Electric equipment with new grades of thermal resistivity was developed on this basis for a working temperature of from 180-200°C, which at a part-time operation can be raised to from 250-300°C. Moreover, these materials are stable in a wide temperature range with respect to electric and other physical properties. Almost all types of mica insulation were developed on the basis of organosilicon resins and lacquers of the VEI in a heat proof variety and introduced in electric industry, that is to say: formable, sealing and elastic micanite, elastic glass micanite, glass micanite bands, glass micanite foils. Further: micanite materials on the basis of organosilicon polymers: Collector and sealing micanite, formable and elastic glass micanite. Glass micanite bands and glass micanite foils are at present examined in laboratories and in production. A comparatively detailed survey of data characterizing these substances is given. There are 10 figures and 3 tables.

Card 2/3

Synthetic Polymers in Electric Mica Insulation

SOV/105-58-8-5/21

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. Lenina.(VEI)  
(All-Union Electrotechnical Institute imeni Lenin)

SUBMITTED: June 2, 1958

1. Electrical equipment--Insulation
2. Varnishes--Properties
3. Synthetic polymers--Production
4. Synthetic polymers--Properties

Card 3/3

PETRASHKO, H. I.

5(2,3)

PHASE I BOOK EXPLOITATION

SOV/2195

Andrianov, Kuz'ma Andrianovich, and Aleksey Ivanovich Petrashko

Kremniyorganicheskiye polimery v narodnom khozyaystve (Organosilicon Polymers in the National Economy) Moscow, Izd-vo AN SSSR, 1959. 76 p. (Series: Akademiya nauk SSSR. Nauchno-populyarnaya seriya) 15,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Redkollegiya nauchno-populyarnoy literatury.

Ed. of Publishing House: Ye.I. Volodina; Tech. Ed.: O.M. Gus'kova.

PURPOSE: The book is intended for the general reader interested in the chemistry of synthetics.

COVERAGE: This popular science type booklet describes polymers made from organosilicon compounds. A brief survey of the properties of organic polymers precedes the discussion of polymers made of organosilicon compounds, their characteristics and possible uses in the national economy. Special attention

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## Organosilicon Polymers in the National (Cont.)

SOV/2195

is given to lubricants which do not freeze even at 90° to 100°C and whose viscosity is not affected by temperature change. More detailed treatment is also given to organosilicon rubbers whose elasticity is not affected by temperatures ranging from 80°C to 300°C. Materials made from polymers of organosiloxanes can withstand temperatures of 200°C for a prolonged period of time and 535°C for a short period of time. No personalities are mentioned. No references are given.

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SOV/2195

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AVAILABLE: Library of Congress

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TM/fal  
9-9-59

ANDRIANOV, K.A.; PETRASHKO, A.I.

Polyaluminodimethylsiloxanes. Vysokom.soed. 1 no.10:  
1514-1518 0 '59. (MIRA 13:3)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i  
Vsesoyuznyy elektrotekhnicheskiy institut im.V.I.Lenina.  
(Siloxanes) (Aluminum compounds) (Polymers)



5(3)

SOV/26-59-4-3/43

AUTHOR:

Andrianov, K.A.; Corresponding Member AS USSR, and Petrashko, A.I. (Moskow)

TITLE:

Silicoorganic Polymers in the National Economy (Kremniyorganicheskiye polimery v narodnom khozyaystve)

PERIODICAL:

Priroda, 1959, Nr 4, pp 9-16 (USSR)

ABSTRACT:

The author describes the vast field of application of silicoorganic polymers, especially polyorganosiloxan, in engineering, medicine, foodstuff and the perfume industry, etc. These polymers containing inorganic elements in the molecular chain are the first representatives of a group lying in the so-called "border zone" between organic polymers and inorganic compounds. Due to their inorganic molecular chain, these polymers approach inorganic compounds, their carbon-containing frame groups, however, link them with the well-known high-molecular compounds. Thus, these polymers combine many valuable properties of both groups, e.g., high resist-

Card 1/2

SOV/26-59-4-3/43

Silicoorganic Polymers in the National Economy

ance against high and low temperatures, the effects of water and moisture, the electric field and light, etc. The author explains the chemical structure of silicoorganic polymers in detail, stresses their growing importance for future industrial purposes and quotes many examples of using them, e.g. as lubricants, resins, elasticity gage, varnish, etc.

Card 2/2

PETRASHKO, A.I.; ANDRIANOV, K.A.

Thermooxidizing degradation of polymers with inorganic main chains of molecules. Vysokom.sped. 6 no.8:1505-1514 Ag '64. (MIRA 17:10)

1. Vsesoyuznyy elektrotekhnicheskiy institut imeni V.I.Lenina i Institut elementoorganicheskikh soyedineniy AN SSSR.

PETRASHKO, A.I.; ANDRIANOV, K.A.

Investigating the simultaneous catalytic polymerization of  
polyorganosiloxanes with epoxy resins in the presence of  
polyalumophenyl siloxanes. Plast. massy no.11:26-27 '64.  
(MIRA 18:1)

ACC NR: AP6025396

SOURCE CODE: UR/0062/66/000/007/1145/1154

AUTHOR: Petrashko, A. I.; Yelinek, V. I.; Andrianov, K. A.; Zhdanov, A. A.;  
Gashnikova, N. N.; Golubkov, G. Ye.; Litvinova, L. F.

ORG: All-Union Electrical Engineering Institute in V. I. Lenin (Vsesoyuznyy elektrotekhnicheskii institut); Institute of Organometallic Compounds, Academy of Sciences, SSSR (Institut elementoorganicheskikh soedineniy Akademii nauk SSSR)

TITLE: Study of the conversions of polyorganosiloxanes in the course of thermal polycondensation and catalytic polymerization

SOURCE: AN SSSR. Izv. Ser khim, no. 7, 1966, 1145-1154

TOPIC TAGS: catalytic polymerization, polycondensation, siloxane

ABSTRACT: Changes in certain properties of polyorganosiloxanes were followed during their synthesis from organosiloxane oligomers of various compositions. IR spectroscopic analysis confirmed the structural differences in the oligomers obtained by double decomposition and hydrolytic polycondensation. In the process of thermal and catalytic conversions, these differences disappear, and the polymers have a similar structure independently of the method by which the original oligomers were prepared. It is postulated that thermal polycondensation involves the formation of oxygen bridges between the molecular chains as a result of condensation of hydroxyl groups, and hydrocarbon bridges as a result of oxidation of methyl groups of neighboring molecular chains; the

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UDC: 546.287+542.97+542.952+543.422

L 45717-66

ACC NR: AP6025396

relative importance of these two processes is determined by the composition and structure of the oligomers. Compared to thermal polycondensation, catalytic polymerization leads to the formation of polymers having a higher glass-transition temperature and a wider temperature range of the highly elastic state; this is due to a greater flexibility and mobility of the chains of their molecules owing to the opening of the cyclic links in the oligomer molecules. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 07/ SUBM DATE: 14Feb64/ ORIG REF: 005/ OTH REF: 003

Card

2/2 ULR

L 01/99-57 ENT(m)/EAP(1)/I IOP(c) . WW/RM

ACC NR: AP6030641 (AW) SOURCE CODE: UR/0413/66/000/016/0172/0172

16  
B

INVENTOR: Andrianov, Kh. A.; Yukina, L. N.; Petrashko, A. I.; Asnovich,  
E. Z.

ORG: none

TITLE: Method; of setting epoxy-containing resins. Class 39, No. 114185

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966,  
172

TOPIC TAGS: resin, epoxy resin

ABSTRACT: An Author Certificate has been issued for a method of setting epoxy-  
containing resins by combining them with synthetic resins. To obtain a product with  
increased heat resistance, polyaluminorganosiloxane resins are used in quantities  
of 5—60% as the synthetic resins. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 27Jan58/

Card 1/1

PETRASHKO, A.I.; ZHDANOV, A.A.; ANDRIANOV, K.A.

Catalytic polymerization of organosiloxane oligomers in the presence of alkalies. Report No.1: Effect of the composition and method of preparing oligomers on the polymerization process. Izv. AN SSSR Ser. khim. no.7:1276-1281 J1 '64.

(MIRA 17:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i Vsesoyuznyy elektrotekhnicheskii institut imeni V.I. Lenina.



L 12462-65 EWT(m)/EPP(c)/EPR/EWP(1)/T PC-4/Pr-4/Ps-4 RPL WM/RM  
ACCESSION NR: AP4048206 S/0191/64/000/011/0026/0027

AUTHOR: Patrashko, A. I.; Andrianov, K. A.

TITLE: Investigation of the catalytic copolymerization of polyorgano-  
siloxanes with epoxy resin in the presence of polyaluminumphenylsilox-  
ane 15 7 B

SOURCE: Plasticheskiye massy, no. 11, 1964, 26-27

TOPIC TAGS: silicon, polyorganosiloxane, polysiloxane epoxy resin,  
copolymer, epoxy resin

ABSTRACT: Catalytic copolymerization of a polyorganosiloxane oligomer  
with an epoxy resin in the presence of polyaluminumphenylsiloxane  
catalyst has been studied. The oligomer was prepared by cohydrolysis  
of phenyltrichlorosilane and dimethyldichlorosilane in a 1/1 molar  
ratio. ED-6 epoxy resin in a 10-50% concentration (on the epoxy-  
polysiloxane mixture) was used. The copolymerization was carried out  
in xylene at 80C. The epoxy resin did not homopolymerize, while the  
oligomer polymerized at a higher rate than it does by itself. This

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L 12462-65

ACCESSION NR: AP4048206

higher rate is attributed to a "cross-linking" effect due to the formation of polyorganosiloxane—polyaluminophenylsiloxane—epoxy resin coordination bonds. Grafting of epoxy resin to polyorganosiloxane changed the latter's properties markedly, in particular its compatibility with epoxy resin. Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, *gc*

NO REF SOV: 008

OTHER: 001

ATD PRESS: 3123

Card 2/2

L 8647-65 EPA(s)-2/EWT(p)/EPR(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4/Pt-10

W/EM  
ACCESSION NR: AP4043791

S/0190/64/006/008/1505/1514

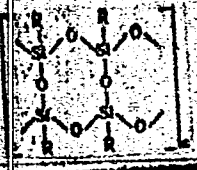
AUTHOR: Petrasenko, A. I.; Andrianov, K. A.

TITLE: Thermal-oxidative degradation of polymers with inorganic backbone

SOURCE: Vysshomolekulyarnye soedineniya, v. 6, no. 8, 1964, 1505-1514

TOPIC TAGS: polyorganosiloxane, polyorganometallosiloxane, thermal oxidative degradation, Al, Sn, Ti, organic substituent, organic substituent oxidation, silicon

ABSTRACT: The effect of the incorporation of metals (Ti, Sn, or Al) in polyorganosiloxanes on the stability of organosilicon polymers to thermal-oxidative degradation has been studied. Experiments were conducted with polymers with the composition

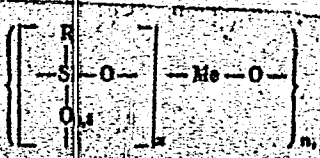


Card 1/4

1 8647-65

ACCESSION NR: AF4043791

(when R is methyl, ethyl, phenyl, or vinyl) and with their block copolymers with polyorganometallosiloxanes of the type



(where Me is Al, Sn, or Ti; R is C<sub>2</sub>H<sub>5</sub> or C<sub>6</sub>H<sub>5</sub>; and x = 3 to 5). Because thermal-oxidative degradation of these polymers proceeds by the splitting off of organic substituents without degradation of the molecules at the siloxane links, the thermal-oxidative stability of the polymers can be evaluated from the weight loss. The Me/Si ratio in the block copolymers was either 1.0/100 or 1.5/100. The thermomechanical properties of the copolymers differed sharply from those of the initial polymers as shown in Fig. 1 of the Enclosure. Thermal-oxidative degradation was conducted at 400C in air. It was shown that the effect of metals on the stability of organic radicals in organosilicon polymers subjected to thermal-oxidative degradation depends on the nature of the organic substituents on Si: metals decrease the stability of phenyl and vinyl

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1-8647-65

ACCESSION NR: AP4043791

2

radicals, but increase that of methyl and ethyl radicals. The effect of the metal on the stability of phenyl and vinyl substituents increases in the order: Ti<Sn<Al, and their effect on the stability of alkyl radicals, in the order Ti<Al<Sn. The methyl radical is more stable than the ethyl radical. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina (All-Union Electrotechnical Institute); Institut elementoorganicheskikh soedineniy AN SSSR (Institute of Organo-Elemental Compounds, AN SSSR)

SUBMITTED: 09Oct63

STD PRESS: 311

ENCL: 01

SUB CODE: GC, CC

NO REF SOV: 003

OTHER: 000

Card 3/4

8647-65

ACCESSION NR: AP403791

ENCLOSURE: 01

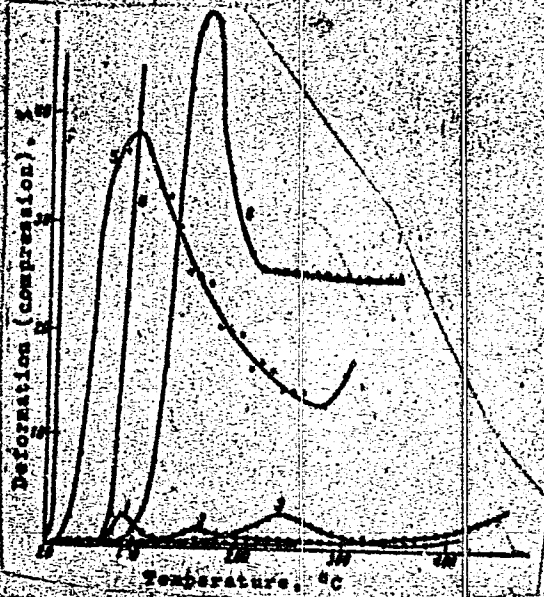


Fig. 1. Thermomechanical properties of polymers based on polyphenylsiloxane and polymethylsiloxane

1 - M-Ti-1.0; 2 -  $\phi$ -Al-1.0;  
3 -  $\phi$ -Ti-1.0; 4 -  $\phi$ ; 5 - Mn-Sn-1.0; 6 -  $\phi$ -Sn-1.0; 7 - M.  
(M - methyl;  $\phi$  - phenyl)

Card

L 12979-65 EWT(m)/EPF(o)/T/ENP(1) Pc-4/Pr-4 BM 8/0062/64/000/007/1276/1281  
ACCESSION NR: AP4042874

AUTHOR: Petrashko, A. I.; Zhdanov, A. A.; Andrianov, K. A.

TITLE: Catalytic polymerization of organosiloxane oligomers in the presence of alkali. Communication 1. Effect of composition and method of oligomer preparation on the polymerization process.

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 7, 1964, 1276-1281

TOPIC TAGS: organosiloxane, organosiloxane oligomer, catalytic polymerization, oligomer synthesis, polymerization rate, hydrolytic polycondensation, double decomposition reaction, spatial hindrance

ABSTRACT: The polymerization in the presence of NaOH of organosiloxane polymers of different chemical composition obtained by different methods was investigated. The polymerization rate of oligomers with  $C_6H_5SiO_{1.5}$ ;  $(CH_3)_2SiO = 1:1$ , obtained by hydrolytic polycondensation was higher than of oligomers of analogous composition obtained by double decomposition. This is apparently caused by different stresses of organosiloxane rings in the chain structure. There were also small differences in polymerisation rates depending on hydrolytic conditions--water:toluene ratio and

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L 12979-65  
Accession NR: AP4042874

2

HCl acceptor. On comparing oligomers with  $C_6H_5SiO_{1.5}$ ;  $(CH_3)_2SiO = 2:1, 3:2, 1:1$  and 2:3, it was found the bulky phenyl radicals bonded to the Si atom spatially obstructed attack of the Si atom by active centers, retarding the polymerization rate. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR (Institute of Organometallic Compounds, Academy of Sciences, SSSR); Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina (All Union Electrotechnical Institute)

SUBMITTED: 14Feb64

ENCL: 00

SUB CODE: GC

NO REF SOV: 008

OTHER: 000

Card 2/2



ACCESSION NR: AP4039943

S/0191/64/0.0/006/0017/0020

AUTHOR: Petrashko, A. I.; Andrianov, K. A.

TITLE: Catalytic polymerization of phenyldimethylsiloxane oligomers in the presence of polymetallophenylsiloxanes.

SOURCE: Plasticheskiye massy\*, no. 6, 1964, 17-20

TOPIC TAGS: phenyldimethylsiloxane oligomer, polymerization, synthesis, polymetallophenylsiloxane, polyalumophenylsiloxane, polystannophenylsiloxane, polytitanophenylsiloxane, phenyltrichlorosilane dimethyldichlorosilane cohydrolysis, polyphenylsiloxane dimethyldichlorosilane cohydrolysis, polymerization mechanism, polymer curing, dielectric property, thermomechanical property

ABSTRACT: The polymerization of phenyldimethylsiloxane oligomers of different compositions, catalyzed by polymetallophenylsiloxanes, was investigated. Phenyldimethylsiloxane oligomers of 5 different structures were formed by the cohydrolysis of phenyltrichlorosilane and dimethyldichlorosilane in molar ratios of 2:1, 3:2, 1:1 and 2:3, and of 1:1 polyphenylsiloxane and dimethyldichlorosilane (sample 5).

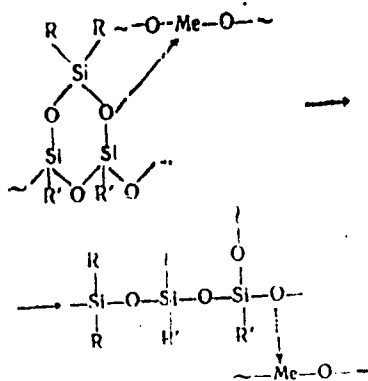
Card 1/4

ACCESSION NR: AP4039943

Polymerizations were run in 50% xylene solutions at 120C. Polymerization to gelation was most rapidly effected with 0.5-0.75% catalyst; excess catalyst increased polymerization time. The dielectric (from -50 to 140C) and thermomechanical properties (-50 to 400C) of the polymers were studied. The maximum tangent of the angle of dielectric loss was in the -5 to +20C range, corresponding to the glassing temperature of the polymers. The degree of polymerization has no effect on these properties since curing of the polymers is apparently completed during heat treatment at 150-200C. The catalytic activity of polyalumophenylsiloxane, polystannophenylsiloxane and polytitanophenylsiloxane on the polymerization was found to decrease in that order with the metal with the greatest coordination affinity for oxygen having the greatest catalytic effect. The polymerization mechanism is based on opening of the rings of the polyorganosiloxane molecules with subsequent polymerization:

Cord 2/4

ACCESSION NR: AP4039943



The method of oligomer preparation has the greatest effect on the polymerization process. It was observed that the viscosity of Sample 5 remained constant even after 15 hours polymerization while viscosities of the other oligomers increased rapidly in less time; Sample 5 gelled after 7 hours 22 minutes in comparison to 58 seconds for the other 1:1 oligomer. "Investigations were conducted by G. Ye.

Card 3/4

ACCESSION NR: AP4039943

Golubkov and B. K. Artem'yev whom the authors sincerely thank." Orig. art. has:  
5 figures, 1 table and 3 equations.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OC,GC

NO REF SOV: 012

OTHER: 004

Card 4/4

ANDRIANOV, K.A.; PETRASHKO, A.I.; ASNOVICH, E.Z.

Polymers with inorganic chains of molecules. Khim.prom. no.1:  
7-18 Ja '63. (MIRA 16:3)  
(Macromolecular compounds) (Silicon organic compounds)

S/064/63/000/001/001/007  
B101/B186

AUTHORS: Andrianov, K. A., Petrashko, A. I., Asnovich, E. Z.

TITLE: Polymers with inorganic molecular chains

PERIODICAL: Khimicheskaya promyshlennost', no. 1, 1963, 7 - 18

TEXT: This is a review of publications on the synthesis of polyorgano-silicon compound, polyorganoaluminosilicon, polyorganotitanosilicon, polyorganostannosilicon, polyorganoferrosilicon compounds, and phosphorus-containing organosilicon compounds. It covers the period 1948 - 1962 but mainly includes Soviet publications issued in 1961 - 1962. The following problems were mentioned as being important: Production of films and fibers from organosilicon compounds, development of the synthesis of block and graft copolymers of organosilicon compounds, and studies on the possibility of producing organosilicon polymers with regular structures. There are 58 references.

Card 1/1

S/081/62/000/020/029/040  
B160/B144

AUTHORS: Asnovich, E. Z., Gashnikov, E. G., Petrashko, A. I.

TITLE: Organosilicon polymers

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1962, 500, abstract  
20P49 (Vestn. tekhn. i ekon. inform. N.-i. in-t tekhn-ekon.  
issled. Gos. kom-ta Sov. Min. SSSR po Khimii, 1961, no. 12,  
28 - 36)

TEXT: Particular structural points, physicochemical properties and fields  
of application for organosilicon polymers (resins, varnishes, heat-resist-  
ant enamels, liquids and rubbers) are discussed. 13 references. ✓

[Abstracter's note: Complete translation.]

Card 1/1

PETRASHKO, A. I.; ANDRIANOV, K. A.

Physical and thermal properties of polyorganosiloxanes obtained  
by double decomposition reaction. Vysokom.soed. 4 no.2:221-229  
F '62. (MIRA 15:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i  
Vsesoyuznyy elektrotekhnicheskii institut im. V.I.Lenina.  
(Siloxanes) (Polymers)

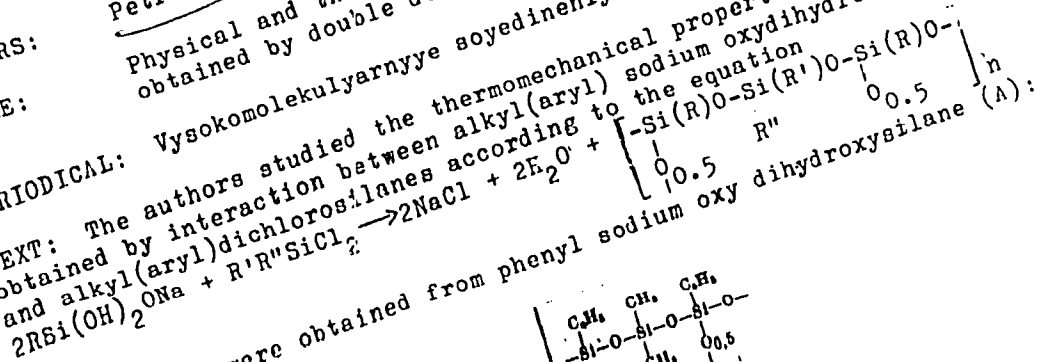


33381  
S/190/62/004/002/010/021  
B101/B110

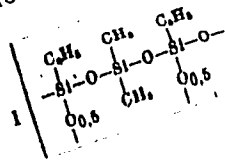
158170 1581  
AUTHORS:  
TITLE:

Petrashko, A. I., Andrianov, K. A.  
Physical and thermal properties of polyorganosiloxanes  
obtained by double decomposition reaction

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 2, 1962, 221-229  
TEXT: The authors studied the thermomechanical properties of polymers  
obtained by interaction between alkyl(aryl) sodium oxydihydroxysilanes  
and alkyl(aryl)dichlorosilanes according to the equation



New polymers were obtained from phenyl sodium oxy dihydroxysilane (A):



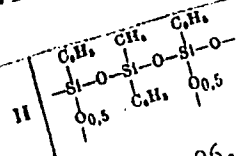
Card 1/6

33381

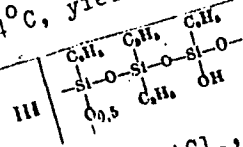
S/190/62/004/002/010/021  
B101/B110

Physical and thermal properties...

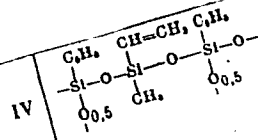
by reaction with  $(CH_3)_2SiCl_2$ , vitrification temperature  $T_v = 52^\circ C$ , yield 98%; polymer



with  $(CH_3)(C_6H_5)SiCl_2$ ,  $T_v = 34^\circ C$ , yield 96.4%; polymer



was obtained by reaction with  $(C_2H_5)_2SiCl_2$ ,  $T_v = 28^\circ C$ , yield 89.3%, and polymer



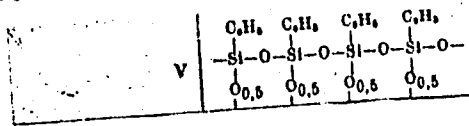
Card 2/6

33381

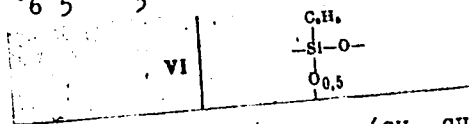
S/190/62/004/002/010/021  
B101/B110

Physical and thermal properties...

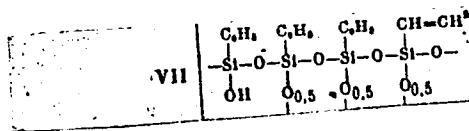
by reaction with  $(CH_3)(CH_2=CH)SiCl_2$ ,  $T_v = 40^\circ C$ , yield 78.3%. Reaction of  
A with  $C_2H_5SiCl_3$  gave



yield 55.6% and with  $C_6H_5SiCl_3$



was obtained,  $T_v = 200^\circ C$ , yield 73.4%, with  $(CH_2=CH)SiCl_3$



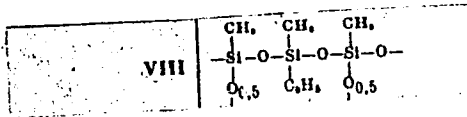
Card 3/6

33381

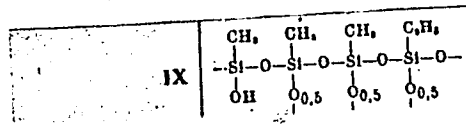
S/190/62/004/002/010/021  
B101/B110

Physical and thermal properties...

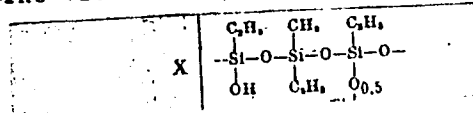
was obtained,  $T_v > 400^\circ\text{C}$ , yield 58.6%. . By a method already described (Vysokomolek. soyed., 2, 136, 1960) methyl sodium oxy dihydroxysilane yielded polymer



yield 63.8%, a viscous liquid.



yield 75.3%, which melts readily was obtained from ethyl sodium oxy dihydroxysilane. The viscous liquid



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33381

S/190/62/004/002/010/021  
B101/B110

Physical and thermal properties.

was obtained from ethyl sodium oxy dihydroxysilane with  $(\text{CH}_3)(\text{C}_6\text{H}_5)\text{SiCl}_2$ . VI has a high thermal stability compared with the polymer obtained by hydrolyzing  $\text{C}_6\text{H}_5\text{SiCl}_3$  whose  $T_v$ , in spite of equal composition, was only  $40 - 50^\circ\text{C}$ . The thermomechanical properties of I and its copolymers with polyaluminophenylsiloxanes were compared. After a 2-hr heating at  $500^\circ\text{C}$  the loss in weight of I was 58.3%, the loss in Si was 38.5%. For the copolymer I-A (0.05% Al) these values were 47.2, 19.8; for I-C (0.25% Al) 47.8, 17.6; for I-D (0.5% Al) 48.0, 19.2%, respectively. The high loss in I is explained by cyclization which in the copolymers is prevented by their aluminum content. Structuralization occurs in the copolymers. At  $200^\circ\text{C}$  the copolymer I did not gelatinize after 6 hrs. With I-C gelation occurred after 12 min 36 sec, with I-D after 7 min 12 sec. From a comparison of the behavior of polymethylsiloxane (M) and its aluminum-containing copolymer M-D (0.5% Al) as well as of polyphenylsiloxane (P) and of the copolymer P-D at  $400^\circ\text{C}$  the following losses in weight were determined: M 10% after 24 hrs, no further loss in weight within 15 days; M-D 6% after 5 days; P 15% after 15 days, P-D 40% after 15 days. The C/Si ratio decreased to 0.211 after 6 hrs, with M-D it remained  $\sim 1$ . With

Card 5/6

X

33381

S/190/62/004 002 010.021  
B101/B110

Physical and thermal properties

P it remained almost unchanged (5.97), with P-D it decreased to 2.65. The thermomechanical values were determined by G. Ye. Golubkov and N. P. Gashnikova. There are 4 figures, 4 tables, and 8 references: 6 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: US Patent 2853503, 1958; L. H. Sommer, L. Q. Green, F. C. Whitmore, J. Amer. Chem. Soc., 71, 3253, 1949 X

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elemental Organic Compounds of AS USSR) Vsesoyuznyy elektrotekhnicheskiy institut im V. I. Lenina (All-Union Electrotechnical Institute imeni V. I. Lenin)

SUBMITTED: February 8, 1961

Card 6/6

ANDRIANOV, Kuz'ma Andrianovich; ASNOVICH, Emmanuil Zinov'yevich;  
PETRASHKO, Aleksey Ivanovich; NEKHLYUDOVA, A.S., red.; SAVCHENKO,  
Ye.V., tekhn. red.

[Chemistry of large molecules] Khimiia bol'shikh molekul. Moskva,  
Izd-vo "Znanie," 1961. 39 p. (Narodnyi universitet kul'tury:  
Estestvennonauchnyy fakul'tet, no.18) (MIRA 15:1)

1. Chlen-korrespondent AN SSSR (for Andrianov).  
(POLYMERS)

ANDRIANOV, K.A.; PETRASHKO, A.I.; ASNOVICH, E.Z.

Organic polymers of different elements. Priroda 49 no.9:27-32  
S '60. (MIRA 13:10)

1. Chlen-korrespondent AN SSSR (for Andrianov).  
(Silicon organic compounds) (Polymers)



85542

S/026/60/000/009/007/010  
A166/A029

5.3700 2209, 1273, 2109

AUTHORS: Andrianov, K.A., Corresponding Member; Petrashko, A.I.; Asnovich, E.Z.

TITLE: Elementoorganic Polymers

PERIODICAL: Priroda, 1960, No. 9, pp. 27 - 32

TEXT: The authors review some of the modern elementoorganic polymers and the uses to which they can be put. The Soviet ГКМ-94 (GKZh-94) silicoorganic fluid could be used to coat transporter belts in bakeries to prevent the bread from sticking to the belt during the baking process. Silicoorganic liquids can be used to impart a super-thin hydrophobic coating, making the treated material waterproof but yet permeable to air. Fabrics so treated do not stick together and the method is therefore good for artificial fur. Brick or roofing tiles treated with a 1 - 2% solution of GKZh-11 silicoorganic polymer do not absorb water. Silicoorganic polymers also give thermostable coatings for molds in precision casting and make excellent insulating material at high and low temperatures and for submarine cables and electrical equipment. Polyorganometallosiloxanes with widely varying properties have been synthesized in the USSR, including polyorganoalumosiloxanes

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85542

Elementoorganic Polymers

S/026/60/000/009/007/010  
A166/A029

capable of withstanding temperatures of up to 500°C. Some organoalumosiloxanes dissolve readily in water and are similar in structure to alkite and anorthoclase. They have good adhesion to glass, metals, asbestos and fabrics and can therefore be used as hydrophobizers for fabrics, paper, leather and building material. Polyorganotitanosiloxanes are also used as hydrophobizers. Non-friable coatings can be obtained from a 50/50 mixture of polyorganoborosiloxane and polymethylsiloxane. The introduction of boric acid, boric ethers or borium anhydride to polydimethylsiloxane rubbers gives them greater resilience to sudden stress. Polymers can now be synthesized with a basic siloxane chain containing periodic inclusions of nickel, cobalt, chromium or tin atoms. Chemists have developed high-molecular compounds with inorganic molecule chains framed by organic or organosiloxane groups. Silicon, aluminum, titanium boron, lead, tin or phosphorus are commonly used for the main chains. Alukons (polymers with chains of aluminum and oxygen) are soluble in organic solvents and soften at temperatures ranging from 50 to 170°C. Polyorganolumoxanes, used as additives for varnishes and paints, accelerate drying, improve mechanical strength and chemical stability and retard oxidation. They also have good hydrophobizing properties. Polyorganotitanoxanes are soluble in organic solvents, have good thermostable and waterproofing properties and adhere readily to metals and glass. High thermostability (up to 700°C) and

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S/026/60/000/009/007/010

A166/A029

Elementoorganic Polymers

excellent waterproofing are achieved with a 2-layer coating of butylpolytitanate, where the bottom layer contains zinc dust and the upper layer aluminum powder. The drawback is that they are susceptible to the action of salt water. Organic phosphorus polymers are used to fireproof fabrics. Such fabrics do not crumple and are resistant to mold. Organic phosphorus polymers are also used for hydraulic fluids, lubricants, varnishes and anti-foamants. A promising, though as yet unexplored, field of research is that of blocks of various polyorganosiloxane and elementoorganic polymers grafted together or to organic polymers. There are 7 photos. X

ASSOCIATION: AN, SSSR

Card 3/3

SHAPIRO, I.I.; MIKHAYLOV, D.V.; TSEYTS, I.E.; MOSINA, T.S., inzh.;  
PETRASHKO, A.S., inzh.; KASHINTSEVA, L.M., inzh.; GVOZDEVA,  
A.N., inzh.; SHVECHKOVA, A.S., tekhnik; SHANDLER, K.S.,  
tekhnik; EL'KIND V.D., tekhn.red.

[General norms of cutting conditions and time used in the machinery industry for technical standardization of machining on milling machines; lot production] Obshchেমashinostroitel'nye normativy rezhinov rezaniia i vremeni dlia tekhnicheskogo normirovaniia rabot na frezernykh stankakh; seriinoe proizvodstvo. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 269 p.

(MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 3. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for all except El'kind).  
(Milling machines)

SHAPIRO, I.I.; MIKHAYLOV, D.V.; TSEYTS, I.E.; MOSINA, T.S., inzh.;  
PETRASHKO, A.S., inzh.; KASHINTSEVA, L.M., inzh.; GVOZDEVA,  
A.N., inzh.; SHVECHKOVA, A.S., tehnik; SHANDLER, K.S., tehnik;  
MODEL', B.I., tekhn.red.

[General engineering norms for metal cutting operations and  
time for technological standardization on machining on milling  
machines; large-lot and mass production] Obshchemashinostroi-  
tel'nye normativy reshimov rezaniya i vremeni dlia tekhnicheskogo  
normirovaniya rabot na frezernykh stankakh; krupno-  
seriinoe i massovoe proizvodstvo. Moskva, Gos.nauchno-tekhn.  
izd-vo mashinostroit.lit-ry., 1959. 306 p. (MIRA 12:12)

1. Moscow. Nauchno-issledovatel'skiy institut truda. Tsentral'noye byuro promyshlennykh normativov po trudu. 2. Zaveduyushchiy otdelom mashinostroyeniya Tsentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro).
3. Tsentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for all except Model').  
(Metal cutting)

IVANYS, B.; DRDKOVA, S.; VANA, J. Techn. spoluprace: PETRASKOVA, D.; STREJCHYROVA, L.

Distribution of psychoses recorded among psychiatric patients  
in a segment of the urban population. I. Prevalence. Cesk.  
psychiat. 60 no.3:152-163 Je'64

1. Vyzkumny ustav psychiatricky, Praha.

PETRASHKO, E. S.

PETROCHENKO, P.F.; SHAPIRO, I.I.; MIKHAYLOV, D.V., inzh.; MOSINA, T.S., inzh.; PETRASHKO, E.S., inzh.; TISHIN, S.D., dotsent, kand.tekhn.nauk, red.; CHERNOVA, Z.I., tekhn.red.

[Time-norms used in the machinery industry for technical normalization of operations on drilling machines; small-lot and piece production] Obshchেমashinostroitel'nye normativy vremeni dlia tekhnicheskogo normirovaniia rabot na sverlil'nykh stankakh; melkoseriinoe i edinichnoe proizvodstvo. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1959. 33 p. (MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzh. TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skomu byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skomu institute truda (for Petrochenko). 3. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skomu institute truda (for Shapiro). 4. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skomu institute truda (for Mikhaylov, Mosina, Petrashko). (Drilling and boring)

PETROCHENKO, P.P.; SHAPIRO, I.I.; MIKHAYLOV, D.V., inzh.; MOSINA, T.S., inzh.; PETRASHKO, E.S.; TISHIN, S.D., dotsent, kand.tekhn.nauk, red.; DOHRITSYNA, R., tekhn.red.

[General engineering time norms for the technical standardization of machining processes on drilling machines; small-lot and piece production] Obshchemashinostroitel'nye normativy vremeni dlia tekhnicheskogo normirovaniia robot na sverlil'nykh stankakh; melkoseriinoe i edinichnoe proizvodstvo. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1960. 34 p.

(MIRA 14:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzhener TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Petrochenko). 3. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 4. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Mikhaylov, Mosina, Petreshko).

(Drilling and boring)



SHAPIRO, I.I.; MIKHAYLOV, D.V., inzh.; MOSINA, T.S., inzh.; ~~PETRASHKO,~~  
~~E.S.~~ inzh.; SLUCHAYEV, P.N., inzh.; PETROCHENKO, P.P.; KHISIN,  
R.I., red.; GORDEYEVA, L.P., tekhn.red.

[General engineering norms for metal cutting operations and time for technological standardization of machining on planing and slotting machines; lot production] Obshchemashinostroitel'nye normativy rezhimov rezaniya i vremeni dlia tekhnicheskogo normirovaniya rabot na stogal'nykh i dolbeznykh stankakh; seriinoe proizvodstvo. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 95 p. (MIRA 12:12)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. TSentral'noye byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for all except Khisin, Gordeyev). 3. Zaveduyushchiy otdelom mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Shapiro). 4. Glavnyy inzhener TSentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Petrochenko).  
(Metal cutting)

L 37699-66 EWT(m)/T/EMP(t)/ETI IJF(c) JD/HW/JG/WB

ACC NR: AT6023742

(A,N)

SOURCE CODE: UR/2755/66/000/005/0163/0172

AUTHOR: Beskorovaynyy, N. M.; Ivanov, V. K.; Petrashko, V. V.

58

ORG: none

55

TITLE: Corrosion of chromium-nickel stainless steel in lithium

B+1

SOURCE: Moscow. <sup>16</sup>Inzhenerno-fizicheskiy institut. <sup>18</sup>Metallurgiya i metallovedeniye <sup>27</sup>chistyykh metallov, no. 5, 1966, 163-172

TOPIC TAGS: stainless steel, ~~chromium-nickel steel~~, steel corrosion, lithium induced corrosion, ~~corrosion resistance~~, ~~steel~~, chromium steel, nickel steel, lithium, corrosion

ABSTRACT: Three series of <sup>14</sup>1Kh18N9T stainless-steel specimens were tested for corrosion behavior in lithium at 700C for 10 or 200 hr. Series 1 and 2 specimens were tested in lithium containing a small amount of C<sup>14</sup> isotope and in tanks made of 1Kh18N9T steel (series 1) or Armco-iron (series 2). In the case of series 3 specimens, the lithium contained 0.1% carbon in addition to C<sup>14</sup> and the tanks were made of Armco-iron. The corrosion was found to follow the same pattern under all the conditions tested, and was characterized by a gradual dissolution of chromium and nickel from the surface layer of the specimens. With decreasing chromium and nickel content the steel changes its structure and gradually loses its corrosion resistance. Microporosity formed in points previously occupied by chromium and nickel

Card 1/2

L 37699-66

ACC NR: AT6023742

lowers considerably the steel ductility. The carbon content in lithium and tank material were found to have a marked effect on the intensity of processes associated with corrosion. The most intensive loss of chromium and nickel was observed in series 2 and 3 specimens in which in 200 hr the chromium content in the surface layer dropped by 50% and the nickel content, by 45 and 50% of the original content, respectively. Specimens of series 1 under the same conditions lost 10% of their chromium and 30% of their nickel.<sup>27</sup> Accordingly, the elongation of the series 1, 2, and 3<sup>27</sup> specimens dropped from the original 48.2% to 47.1, 26.4, and 24.4%, respectively. Carbon contained in lithium was found to diffuse into the steel. However, in the first hours of the test, carbon concentrates primarily in the surface layer. As the chromium content in the surface layer drops, carbon migrates inside, following the front of original chromium content. Orig. art. has: 7 figures and 4 tables. [DV]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 005/ ATD PRESS: 5641

chromium-nickel steel 18nd  
Card 2/2

FROMBERG, M.B.; PETRASHKO, Yu.K.

Synthesis of methylvinylhydroxysiloxanes with hydroxyl groups  
at a silicon atom. Zhur.ob.khim. 33 no.10:3266-3269 0 '63.  
(MIRA 16:11)

AUTHORS: Andrianov, K.; Dzhenchel'skaya, S.; Petrashko, Yu. 79-28 3-27/61

TITLE: The Catalytic Polymerization of Polyphenyl- and Poly-(Dimethyl-Phenyl) Siloxanes (Kataliticheskaya polimerizatsiya polifenil-i poli (dimetilfenil)siloksanov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 685-689 (USSR)

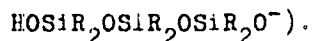
ABSTRACT: Polyorganosiloxanes are obtained by the hydrolysis of alkyl(aryl)haloidsilanes or alkyl(aryl)alkoxysilanes with subsequent condensation of the products of hydrolysis. During the hydrolysis, reactions occur which lead to the formation of linear or cyclic polymers. With excess water cyclic polymers in acidous medium result with good yields. In the hydrolysis of the difunctional monomers (of dimethylchlorosilane, pnylmethyldichlorosilane) low-molecular cyclic products were separated -trimers, tetramers and higher cycles (ref. 1). The cyclic compounds obtained can regroup in the presence of catalysts (sulfuric acid, antimony pentachloride, caustic potash, iron chloride), the cycles being ruptured. The

Card 1/3

The Catalytic Polymerization of Polyphenyl- and Poly-  
(Dimethyl-Phenyl)Siloxanes

79-23 3-27/5:

polymerization of the cycles obtained from dimethylchlorosilane occurs with an action of alkalies according to the given scheme (final product



Recently, it was found that in the hydrolysis of three-functional compounds in acidous medium also cyclic polymers are formed. In the hydrolysis of ethyltriethoxysilane and pentachlorophenyltrichlorosilane crystalline cyclic polymers of the mentioned cubic structure were separated: in the common hydrolysis of phenyltrichlorosilane with dimethyldichlorosilane in acidous medium also cyclic polymers of the mixed type (see formula A) are formed. As the conversions of tri- and di-functional alkyl (aryl)halosilanes in to polymers are of great interest the authors tried to explain the reaction of alkaline catalytic polymerization of cyclic compounds obtained in the hydrolysis of phenyltrichlorosilane as well as the products of the common hydrolysis of phenyltrichlorosilane with dimethyldichlorosilane. It was found that

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the poly-dimethylphenylsiloxanes polymerize more easily than the polyphenylsiloxanes; octomethylcyclotetrasiloxane polymerized under the influence of small amounts of caustic potash only when heated. In this the effect of the amount of caustic potash on the velocity of gel formation, the dependence of the viscosity of the initial products on the polymerization period with various amounts of caustic potash and the effect of the concentration of the solutions of the polymer in toluene on the velocity of increasing viscosity were determined (see the three diagrams). There are 3 figures, and 6 references, 2 of which are Soviet

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ANDRIANOV, K.; DZHENGHEL'SKAYA, S.; PETRASHKO, Yu.

Catalytic polymerization of polyphenyl- and poly(dimethylphenyl)-  
siloxanes. Zhur. ob. khim. 28 no.3:685-689 Mr '58. (MIRA 11:5)  
(Cyclosiloxane) (Polymers and polymerization)



PPISHKO, M.F.; BRUNBULG, M.S.; AMIRIAROV, K.A.

Synthesis of resins with the central silicon atom  
and hydroxyl groups at the ends of branching. Izv. AN SSSR.  
Ser. khim. no.9:1709-1711 '65. (UDCA 1879)

1. Elektrotekhnicheskij Institut im. V.I. Lenina.

FROMBERG, M.B.; PETRASHKO, Yu.K.; VOZHOVA, V.D.; ANDRIANOV, K.A.

Exchange decomposition reaction between alkyl (aryl) trisodium-  
hydroxysilanes and methylphenyldichlorosilane. Izv. AN SSSR. Ser.  
khim. no.4:660-665 '65. (MIRA 18:5)

1. Elektrotekhnicheskiy Institut im. V.I.Lenina.

3/051/61/000/000/040/031  
3202/3302

AUTHORS: Dzhenchel'skaya, S. I., Andrianov, K. A. and Petrashko,  
Yu. K.

TITLE: The catalytic polymerization of polydimethylsiloxanes

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soedineniy; trudy konferentsii. no. 6: Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len., 1958. Leningrad, Izd-vo AN SSSR, 1961, 180-181

TEXT: A discussion on a previous report (no. 2, p. 45, this publication) between K. A. Andrianov, N. M. Sokolov (VEI, Moscow), A. V. Karlin (VNIISK, Leningrad) and M. C. Voronkov (IKhS, AS USSR). The catalytic effect of NaOH on its thermal stability (at 300°C), as well as the possible use of quaternary ammonium bases as catalysts and the inefficiency of acidic catalysts were discussed.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. V.I. Lenina, Moskva (All-Union Electrotechnical Institute im. V. I. Lenin, Moscow) ✓

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B101/B215

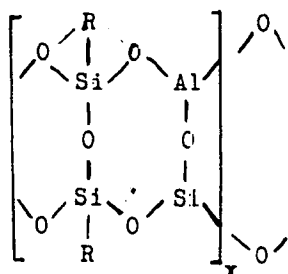
158170

AUTHORS: Andrianov, K. A., Dzhenchel'skaya, S. I., Petrashko, Yu. K. X

TITLE: Catalytic polymerization of polyalumino-organosiloxanes

PERIODICAL: Plasticheskiye massy, no. 7, 1961, 20-21

TEXT: The authors continue their studies on the polymerization of organocyclosiloxanes (ZhOKh AN SSSR, 28, 685 (1955); Plast. massy no. 3 (1960)). The polymerization of aluminosiloxanes of the general structure



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