

SULOVA, Olga

Specialni osetrovatelska technika. Pomocna kniha pro zdravotni skoly, obor zdravot. sester. (Special Technique of Nursing; an auxiliary textbook for the schools of health. 1st ed. illus.) Authors: Olga Sulova, Jarmila Kolečková. Prague, SZdN, 1957. 239 p.

Bibliografický katalog, CSR, Ceske knihy, No. 33. 24 Sept 57. p. 720.

SISTIKOVA /reviewer/ SULOVA, O. /Author/
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: /not given/

Source: Bratislava, lekarsky Obzor, Vol X, No 6, 1961, page 366.

Data: "Special Nursing Technique" (Specialna osetrovatelska technika),
/A textbook/, Martin, Osveta, 1960. 280 pages, 49 illus.

Co-author:

KOLECKOVA, J. /not given/

2,2

GPO 981643

SKURINA, T., doc. dr; SULOVIĆ, B., doc. dr

Blood substitutes in the treatment of surgical shock. Med. glas. 15
no.6:270-273 Je 61.

1. Ginekološko-akuserska klinika Medicinskog fakulteta u Beogradu
(Upravnik: prof. dr B. Milosevic)

(SHOCK ther) (SURGERY OPERATIVE compl)
(PLASMA SUBSTITUTES ther)

KOSTIC, P.; SULOVIC, V.

The treatment of mycotic infection of the urogenital system in woman. Med.glasn.9 no.4:125-131 Apr '55.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta u Beogradu
(Upravnik: prof. dr. S. Tasovac)

(GENITALIA, FEMALE, dis.

moniliasis, ther., gentian violet & iodine, results (Ser))

(MONILIASIS,

vulvovaginal, ther., gentian violet & iodine, results
(Ser))

(GENTIAN VIOLET, ther. use

vulvovaginal moniliasis, with iodine, results (Ser))

(IODINE, ther. use.

vulvovaginal moniliasis, with gentian violet, results
(Ser))

TOMIC, M.; SEGEDIN, R.; SULOVIĆ, V.

Hemorrhage caused by afibrinogenemia and fibrinolysis after delivery; case report. Srpski arh. celok. lek. 83 no.4:494-501 Apr 55.

1. Ginekolosko-akuserska klinika u Beogradu. Upravnik: Sinisa Tasovac.

(HEMORRHAGE, etiol. & pathogen.

afibrinogenemia & fibrinolysis after delivery (Ser))

(FIBRINOGEN, defic.

afibrinogenemia & fibrinolysis causing hemorrh. after delivery (Ser))

(FIBRIN,

fibrinolysis & afibrinogenemia causing hemorrh. after delivery (Ser))

(DELIVERY, compl. hemorrh.)

MLADENOVIC, Dragomir; SULOVIĆ, Vojin; GRUBAC, Milena

Atonic hemorrhage during and after labor. Srpski arh. celok.
lek. 83 no.9:937-946 Sept 55.

1. Akusersko-ginekološka klinika Medicinskog fakulteta u Beogradu.
Upravnik: Sinisa Tasovac.

(LABOR, hemorrh.

etiol. & ther. (Ser))

(HEMORRHAGE, in pregn.

in labor, etiol. & ther. (Ser))

SKURINA, Tatjana; SULOVIĆ, Vojin

Rupture of uterus after classical cesarean section; three case reports. Med. glas. 10 no.7:287-290 July 56.

1. Ginekološko-akuserska klinika Medicinskog fakulteta u Beogradu (upravnik prof. dr. S. Tasovac).

(UTERUS, rupt.

caused by cesarean section (Ser))

(CESAREAN SECTION, compl.

rupt. of uterus (Ser))

SKURINA, Tatijana, Dr.; SULOVIC, Vojin, dr.

Treatment of eclampsia with Laborit's lytic cocktail. Med.
glasn. 10 no.8:338-341 Aug 56.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta u
Beogradu (upravnik prof. dr. S. Tasovac).

(ECLAMPSIA, ther.

artif. hibernation (Ser))

(HIBERNATION ARTIFICIAL, in various dis.
eclampsia (Ser))

LAZIC, Marija; BOSKOVIC, Milica, Jr.; ~~SULOVIC, Vojin~~

Rupture of uterine cervix during delivery. Srpski arh.
celok. lek. 84 no.3:387-390 March 56.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta u
Beogradu. Upravnik: Sinisa Tasovac.

(CERVIX, UTERINE, rupt.

in delivery, surg. indic. (Ser))

(DELIVERY, compl.

rupt. of uterine cervix, surg. indic. (Ser))

MIADENOVIC, Dragomir; SULOVIĆ, Vojin; JOVANOVIĆ, Dušan

Delivery in old and young primipara. Srpski arh. celok. lek. 85 no.5:
588-595 Mar 57.

1. Ginekolosko-akuseraka klinika Medicinskog Medicinskog fakulteta u
Beogradu. Upravnik: Sinisa Tasovac.

(DELIVERY,

in old & young primipara (Ser))

SKURINA, Tatjana; ~~SILJAVIC, Vojislav~~ JOVANOVIC, Dusan

Hydramnios. Srpski arh. celok. lek. 85 no.12:1348-1352 Dec 57.

1. Ginekološko-akuserska klinika Medicinskog fakulteta u Beogradu
Upravnik: prof. Sinisa Tasovac.

(AMNIOTIC FLUID
hydramnios)

LAZIC, M., dr.; PRICA, R., dr.; SULOVIĆ, V., dr.

Role of the obstetrician in asphyxia neonatorum. Med. glasnik.

13 no.5:332-337 May '59.

(ASPHYXIA NEONATORUM ther.)

TOMIC, Milan; SULOVIĆ, Vojin

Utero-placental apoplexy and premature separation of a normal placenta. Srpski arh. celok. lek. 87 no.6:550-557 Je '59.

1. Ginekološko-akuserska klinika Medicinskog fakulteta u Beogradu,
upravnik: prof. dr Sinisa Tasovac.
(UTERINE HEMORRHAGE)
(PLACENTA dis.)

TOMIC, Milan; SKURINA, Tatjana; SULOVIĆ, Vojin

Tumors of the ligamentum teres uteri. Srpski arh. celok. lek.
87 no.10:941-946 0 '59.

1. Ginekološko-akuserska klinika Medicinskog fakulteta u Beogradu,
upravnik: prof. dr Sinisa Tasovac.
(PELVIS neopl.)
(LIGAMENTS neopl.)

SULOVIC, Vojin, dr., doc.; SKURINA, Tatjana, dr., doc.; ANDELKOVIC, Vojislav, dr.

Choriogonadin in the treatment of spontaneous and threatened abortions.
Med. glas. 15 no.9/10:417-420 O '61.

1. Ginekološko-akuserska klinika Medicinskog fakulteta Univerziteta
u Beogradu (Upravnik: prof. dr B. Milosevic).

(ABORTION ther) (GONADOTROPINS CHORIONIC ther)

LAZIC, Marija; SULOVIC, Vojin; ANDELKOVIC, Vojislav

On Demelin's syndrome. Srpski arh. celok. lek. 89 no.2:197-202
F '61.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta Univerziteta
u Beogradu. Upravnik: prof. dr Sinisa Tasovac.

(LABOR compl)

1962A-81

B. CAJICHOVIC and V. CILICIC, Department of Biochemistry, School of Pharmacy (Katedra za biohemiju, Farmaceutski fakultet) and Obstetric-Gynecologic Clinic, Faculty of Medicine (Ginekološko-akuserska klinika Medicinskog fakulteta) University of Belgrade

"Our Experiences with the Lugol Test of Pathologic Pregnancy."

Delorac, *Analiz. i Farmacija*, Vol 12, No 4, 1962; pp 225-227.

Abstract: [French summary mod. 512] : Study of potential prognostic value of Lugol (iodine reduction in urine) test in about 150 cases of diseases in pregnancy, including 87 of threatened or habitual abortion. Conclude that single test is unreliable but repeated testing at short intervals may have some prognostic value. Main disadvantages are lack of any quantitative value and ignorance of what is actually being measured by the test. Latter question is being studied by authors. Table, 13 content. 1 Yugoslav reference.

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6

SULOVIC, Vojin; DODER, Marta; SKURINA, Tarjana; MITIC, Radmila

Synthomycin-spray in the prevention and therapy of puerperal mastitis. Srpski arh. celok. lek. 90 no.2:185-189 F '62.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr. Bosiljka Milosevic.
(MASTITIS ther) (CHLORAMPHENICOL ther)
(PUERPERIUM compl)

SULOVSKY, Frantisek

Composite and mobile transformer stations. Energetika Cz 11
no.9:451-454 S '61.

2

JANÁK, J; NOVÁK, J; SULOVSÝ, J.

Czechoslovakia

Laboratory for Gas Analysis, Czechoslovak Academy
of Sciences -- Brno and Farmakon, Olomouc- (for
all)

Prague, Collection of Czechoslovak Chemical Communi-
cation, No 11, 1962, pp 2541-2549

"The Separation of Substituted Malonic Acid Ester
through Gas-Fluidity-Chromatographic Method and
through a New Method for its Identification."

SULOWSKI, Janusz, mgr inż.

Appointment of the Interbranch Commission for problems concerning the quality of power machines and installations. Gosp
paliw 11 no.2:69 F '63.

LASHIN, YE. K., MAMON, A. M., SHCHERBA, A. I.

Geography & Geology

Requirements of industry as to the quality of mineral raw materials. Handbook for geologists--Moskva, Gos. izd-vo geologicheskoi lit-ry. Komiteta po delam geologii pri SNT SSSR, No. 23, Mica (muscovite and phlogopite), 1947.

9. Monthly List of Russian Accessions, Library of Congress, October 1952 ~~1953~~, Uncl.

ROZHKOVA, Ye.V., red.; SOBOLEV, M.D., red.; SOLOV'YEV, D.V., red.; SULOVYEV,
A.I., red.; CHERNOSVITOV, Yu.L., red.; VLASOVA, S.M., red. izd-va;
KRYNOCHKINA, K.V., tekhn. red.

[Methods of studying mineral ores] Metody issledovaniia mineral'nogo
syr'ia. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane
nedr, 1957. 138 p. (MIRA 11:4)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut
mineral'nogo syr'ia.
(Mineralogy)

SULOTEV, A.I.

Magmatic features of the Eastern Sayan. Sov. geol. 3 no.6:3-25 Je
'60. (MIRA 13:11)

1. Vsesoyunnyy institut mineral'nogo syr'ya.
(Sayan Mountains--Magma)

SULOYEV, A.I.; TIMOFEYEV, V.N.; KOVALEV, L.V. [deceased]; YAKOVLEV, P.D.;
APOLLONOVA, G.N.; SMIRNOVA, Z.A., red.izd-va; GUROVA, O.A.,
tekhn.red.

[Geology, igneous activity, and development of the Pre-Cambrian
fold massif in the northeastern part of the Eastern Sayan
Mountains] Geologicheskoe stroenie, magmatizm i istoriya
razvitiya severovostochnoi chasti Vostochno-Saianskogo
dokembriiskogo skladchatogo massiva. Moskva, Gos.nauchno-
tekhn.izd-vo lit-ry po geol.i okhrane neдр, 1962. 153 p.
(Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut
mineral'nogo syr'ia. Trudy, no.8). (MIRA 16:2)
(Sayan Mountains--Geology)

BRUK, Moisey Abramovich; RIKHTER, Andrey Aleksandrovich; GOL'TRAF, I.S.,
kand.tekhn.nauk, retsenzent; ZAKHARENKO, B.A., kand.tekhn.nauk,
retsenzent; SULOYEV, A.V., nauchnyy red.; VLASOVA, Z.V., red.;
CHISTYAKOVA, R.K., tekhn. red.

[Operating conditions of marine diesel engines] Reshimiy raboty
sudovyykh dizelei. Leningrad, Sudpromgiz, 1963. 483 p.

(MIRA 16:6)

(Marine diesel engines)

SULOYEV, A.V., kand.tekhn.nauk; CHIZHOV, G.A.

Concerning the book "Fuel injection systems for marine diesel
engines." Sudostroenie 29 no.6:66-67 Je '63. (MIRA 16:7)
(Marine diesel engines—Fuel systems)

KALININ, Georgiy Yevgen'yevich; SULOYEV, A.V., kand. tekhn. nauk
retsenzen ; ASTRATOV, N.A., kand. tekhn. nauk; BOGOMOLOV,
V.S., kand. tekhn. nauk, nauchn. red.; VARKOVETSKAYA, A.I.,
red.

[Model tests of marine turbines and engines] Model'nye ispy-
taniia sudovykh turbin i mashin. Leningrad, Sudostroenie,
1965. 193 p. (MIRA 18:11)

KARFOV, Remir Nikolayevich; MASLENOK, Boris Arkad'yevich; TSYGANKO,
Gleg Leonidovich; BESKURNIKOV, A.I., inzh., retsenzent;
SULGYEV, A.V., kand. tekhn. nauk, retsenzent; AL'KIMOVICH,
A.V., nauchn. red.; KIL'VEYN, G.S., red.

[Drives of the control system of power-generating marine
nuclear reactors] Privody reguliruiushchikh organov sudo-
vykh atomnykh energeticheskikh reaktorov. Leningrad,
Sudostroenie, 1965. 250 p. (MIRA 19:1)

PETROVSKIY, Nikolay Viktorovich; BOLOGOV, V.S., kand. tekhn.nauk,
retsensent; KORCHAGIN, M.I., kand. tekhn. nauk, retsensent;
SULOYEV, A.V., nauchn. red.; SHAURAK, Ye.N., red.

[Fundamentals of the design of marine diesel engines] Osnovy
proektirovaniia sudovykh dizel'nykh ustanovok. Leningrad,
Sudostroenie, 1965. 359 p. (MIRA 18:10)

SULOYEV, M.I.

Work of a disinfection brigade. Veterinariia 40 no.6:74
Je '63. (MIRA 17:1)

1. Nachal'nik dezinfektsionnogo otryada Chuvashskoy
respublikanskoy veterinarnoy polikliniki.

Suloyev, V.I.R.

AUTHOR: Yelisseyev, B.V., Suloyev, V.A. & Tseluyko Yu.I. 94-2-7/27

TITLE: Evaporative cooling of slider pipes (in furnaces), using natural circulation. (Isparitel'noye okhlazhdeniye glissazhnykh trub na yestestvennoy tsirkulyatsii.)

PERIODICAL: Promyshlennaya Energetika, 1958, Vol.13. No.2. pp. 19-21 (USSR)

ABSTRACT: In recent years extensive use has been made of evaporative cooling of various parts of industrial furnaces. Forced circulation is often used to cool the tubes at the bottom of heating furnaces on which the heated materials slide. However, it is possible, and simpler, to use natural circulation for this purpose. In 1955-56 the Gorky Metallurgical Works introduced evaporative cooling on two furnaces attached to a rolling-mill, that were used to heat ingots weighing up to 1,350 kg. Each furnace burns 800 kgs. per hour of fuel oil. The system is illustrated diagrammatically and contains four parallel circuits. Forced circulation was used, with safeguards against pump failure. The possibility of a natural circulation system was investigated, and its merits are discussed. Natural circulation tests were made on the furnaces. The furnace life is divided into three periods characterised by different cooling conditions: the first is when the furnace is new, the thermal insulation is in good condition and the thermal loading is relatively light; then there is a long period during which thermal loadings

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94-2-7/27

Evaporative cooling of slider pipes (in furnaces), using natural circulation.

are intermediate; finally there is a period immediately preceding shut-down for repair, during which the thermal loading is heavy. Cooling conditions in each of these phases are discussed. The natural circulation scheme was found to simplify the hydraulic and electrical circuits, and to reduce first and operating costs, besides making the cooling more reliable. There is 1 figure.

AVAILABLE: Library of Congress.

1. Furnaces-Design

Card 2/2

SULOYEV, V.A.

ANDON'YEV, S.M.; ZHLOBINSKIY, Ye.I.; YUR'YEV, M.A.; STRUGATSKIY, L.F.;
YELISEYEV, B.V.; TSELUYKO, Yu.I.; SUVOROV, A.I.; FILIP'YEV, O.V.;
KALASHNIKOV, P.A.; L'VOV, V.N.; SULOYEV, V.A.

Evaporation cooling of rolling-mill heating furnaces in open-hearth-
furnace plants and complex utilization of secondary power resources.
Prom. energ. 14 no.1:37-39 Ja '59. (MIRA 12:1)
(Furnaces, Heating) (Boilers)

SULOYEV, YU N

Chem Determination of monoethanolamine, diethanolamine, and triethanolamine in mixtures by chromatography. D. A. Yakovlev and Yu. N. Suloyev (State Univ., Gorky). Zhur. Anal. Khim. 11, 459-461 (1966). Starch suspended in *sec*-BuOH was packed in a column under 140 mm Hg pressure.

ure; 0.3 ml. of the soln. to be analyzed was diss. 10 times with *sec*-BuOH satd. with H₂O and poured into a column. After it was adsorbed *sec*-BuOH was passed through the column at a rate of 0.13 ml. min. The rate of flow was controlled by a micrometer screw. The effluent was collected in H₂O and treated with 0.05N HCl (methyl orange indicator). A curve giving time in min. at vol. of 0.05N HCl in ml. had 3 steps which corresponded to tri-, di-, and monoethanolamine.

M. Hovch

RYN *day*

SULOVYEV, YU. M. and BELKIN, A. G.

"Problem of heat-exchange in block polymerization processes."

Report presented at the 1st All-Union Conference on Heat- and Mass- Exchange,
Minsk, USSR, 5-9 June 1961

S/081/62/000/003/079/090
B160/B101

AUTHORS: Suloyev, Yu. N., Belkin, A. G.

TITLE: Intensifying the mass polymerization process

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 563, abstract
3P34 (Tr. po khimii i khim. tekhnol. (Gor'kiy), no. 2, 1961
396 - 399.)

TEXT: Existing and possible ways of intensifying the mass polymerization process are described. The possibility is studied of intensifying the mass polymerization process by using low-temperature initiators. Taking methylmethacrylate and styrene as an example it is shown that the reduction in the polymerization time when the temperature is reduced from 45 to 15°C is 11% for methylmethacrylate, the thermal effect decreases by 3% and the decrease in the thermal effect during the styrene polymerization reaction is also $\leq 5\%$. An equation for calculating the polymerization time and estimating the reduction in polymerization time as the value of the thermal effect decreases is given together with the curves for the specific heat of styrene and polystyrene as a function of the temperature. [Abstracter's note: Complete translation.]
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25564

S/170/61/004/008/014/016
B125/B201

15.8600 2209 1372

AUTHORS: Belkin, A. G., Suloyev, Yu. N.

TITLE: Temperature field at the highest polymerization rate

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 8, 1961, 126 - 129

TEXT: The calculation of temperature in a polymerizing layer enables one to estimate in advance whether block polymerization is possible at a given temperature and concentration; experimental measurements are superfluous. The usual dilatometric curves make it possible to determine the specific heat liberated per unit time with sufficient accuracy, i. e., the specific power of the internal heat source can be established. Fig. 1 shows the dilatometric curve for methyl methacrylate at 58°C and at a benzoyl peroxide concentration of 0.12 %. The straight section of the curve corresponds to the constant power of the heat source, which can be calculated by the formula $W = Q \Delta p / \Delta T 100$. Here, Q denotes the

Joule effect of the polymerization reaction in kcal/m³; Δp is the change in monomer conversion in %; W is the power of the heat source

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B125/B201

Temperature field at...

in kcal/m³.hr; τ is the time in hours. The thickness of the polymerizing layer being equivalent to the diameter of the dilatometer sphere results from the requirement that the mean temperature of the layer equals the mean temperature of the sphere. A formula for the mean temperature of a plate with a constant heat source has earlier been found by A. V. Lykov (Teoriya teploprovodnosti. M. 1952). For $t_0 = t_0$ and $Fo < 20$, this

expression assumes the form $T(\tau) - t_0 = \frac{1}{3} \frac{WR^2}{\lambda} \left(1 + \frac{3}{Bi} \right) (2)$. The equation

for the sphere is obtained similarly: $T(\tau) - t_0 = \frac{1}{15} \frac{WR_{sphere}^2}{\lambda} \left(1 + \frac{5}{Bi_{sphere}} \right)$

(3). By approximation, $R_{sphere} = 2.4 R_{layer}$ is valid, where R_{layer} denotes half the layer thickness. $R_{layer} = 0.0027$ m holds for the dilatometer used here. The temperature field in a polymerizing layer can be calculated using the thermal conduction equation for a plate with a constant inner heat source. Its solution reads, taking account of

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Temperature field at...

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S/170/61/004/008/014/016

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For $\text{Fo} > 20$ and $t_0 = t_0$: $t(x, \tau) - t_0 = \frac{1}{2} \frac{WR^2}{\lambda} \left(1 - \frac{x^2}{R^2} + \frac{2}{Bi} \right) (6)$. By determining

W from the dilatometric curve, the temperature in differently thick layers may be calculated from (6). Table 1 gives results obtained for water cooling. The coefficient of thermal conductivity λ of the polymerizing mass was taken to be equal to 0.148 kcal/m.hr. $^{\circ}\text{C}$. Under the same conditions, it is possible to calculate the temperature in the layers of polymerizing methyl methacrylate with air cooling (Table 2). The heat-exchange coefficient was calculated by means of the diagram

$Nu/Pr^{0.4} = f(Re)$ (3), the velocity of air along the surface of the mold being put equal to 2 m/sec. The results calculated for $R = 0.0027$ must fit the experimental data precisely. Fig. 2 shows curves of the time dependence of $t(0, \tau) - t_0$ for a polymerizing, 5.5 mm thick layer of methyl methacrylate with air and water cooling. According to experimental data, $t(0, \tau) - t_0$ amounts to 2.1 to 2.5 $^{\circ}$ in case of water cooling, and to 15 $^{\circ}$ with air cooling. Polymerization took place in a

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Temperature field at...

mold made of two plates of stainless steel and of a 5.5 mm thick polyethylene frame. At lower temperatures and lower concentrations of benzoyl peroxide than those applied here, calculations must be more accurate. With water cooling, polymerization always takes place at a lower temperature, and heat exchange at a lesser temperature gradient $t_{(R,T)} - t_0$ between wall and medium. Inconsiderable variations of water velocity do not cause any appreciable fluctuations of $t_{(R,T)} - t_0$ and of temperature in the layer. If the temperature is maintained constant by air, the air velocity has a considerable influence upon the amount of $t_{(R,T)} - t_0$. Under industrial conditions, the inconstancy air velocity is evidently one of the causes of the flaws of organic glass due to thermal instability. Experiment and calculation have shown the following: During polymerization in layers of a maximum thickness of 20 mm at 58°C and at a benzoyl-peroxide concentration of 0.12 %, temperature will not exceed 100°C with water cooling. An obstacle confronting glassmaking under these conditions is the high sedimentation rate of the material. There are 2 figures, 2 tables, and 3 Soviet-bloc references.

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Temperature field at..

2556L
S/170/61/004/008/014/016
B125/B201

ASSOCIATION: Politekhnikheskiy institut im. A. A. Zhdanova, g.Gor'kiy
(Polytechnic Institute imeni A. A. Zhdanov, Gor'kiy)

SUBMITTED: March 15, 1961

Fig. 1: Conversion p (%) of
methyl methacrylate as a function
of time τ , hours.

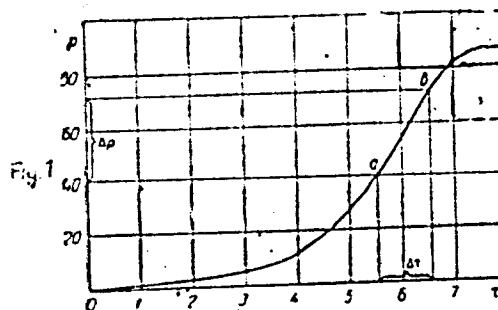
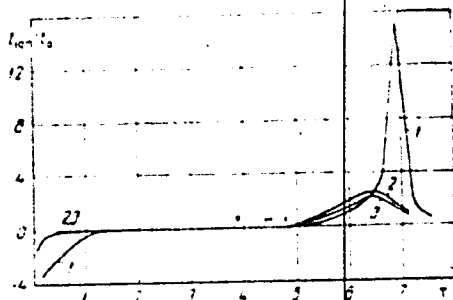


Fig 2



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SULOYEV, Yu.N.

Rate of polymerization at high monomer reactivity ratios.
Trudy po khim.i khim.tekh. no.1:54-56 '64.

Conditions of polymerization of a thick monomer layer.
Ibid.:57-63 (MIRA 18:12)

1. Submitted January 14, 1963.

L 9570-66 EWT(1)/ENT(m)/EMP(t)/EMP(b) LJP(c) JD
 ACC NR: KP5027438 SOURCE CODE: UR/0181/65/007/011/3433/3435

AUTHOR: Iglitsin, M. I.; Solov'yeva, Ye. V. 54
 51
 B

ORG: State Design and Planning Scientific Research Institute of the Rare Metals Industry, Moscow (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut red-kometallicheskoy promyshlennosti)

TITLE: Recombination of non-equilibrium charge carriers in single crystals of indium arsenide 18 27

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3433-3435

TOPIC TAGS: carrier lifetime, radiative recombination, recombination reaction, indium compound, arsenide, single crystal

ABSTRACT: The authors study the general laws pertaining to recombination of non-equilibrium charge carriers in indium arsenide for a more precise definition of the recombination mechanisms which dominate in actual specimens of this compound with various concentrations of equilibrium charge carriers and at various temperatures. The samples used were naturally alloyed single crystals of n-InAs. Lifetimes were measured for non-equilibrium carriers emitted under white light illumination. A comparison is made between data from photoelectromagnetic measurements, and those from photoconductivity measurements. It is found that the lifetimes of electrons and holes

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ACC NR: AP5027438

3

practically coincide. Curves are given for carrier lifetime as a function of temperature. Analysis shows that the lifetime is nearly independent of temperature between 83 and 140°K. There is a sharp exponential reduction in carrier lifetime when the temperature is increased past this point. Lifetimes of 10-0.1 μ sec were observed in the region of the low-temperature plateau. It is assumed that these unusually long lifetimes are due to the combined effect of radiative and impact recombination. Experimental and theoretical curves for carrier lifetime as a function of concentration are compared. These curves show satisfactory agreement which confirms the hypothesis on the joint action of radiative and Auger recombination. The authors are grateful to D. A. Vlasov for furnishing the InAs specimens. Orig. art. has: 2 figures, 1 table.

SUB CODE: 20/

SUBM DATE: 07Jun65/

ORIG REF: 002/

OTH REF: 001

Card 2/2

L 34397-66 BWT(1)/T BWT(1) IJ(c) JG/BB/GD/JXT(BF)
 ACC NR: AT6009442 SOURCE CODE: UR/0000/65/000/000/0045/0051

AUTHOR: Aleksandrov, Ye. K. ; Sul'povar, V. L. ; Timokhin, V. I.

ORG: none

TITLE: The fundamental characteristics of a model learning automaton and certain results of its learning to discriminate patterns 166

SOURCE: AN SSSR. Nauchnyy sovet po kompleksnoy probleme Kibernetika. Bionika (Bionics). Moscow, Izd-vo Nauka, 1965, 45-51

TOPIC TAGS: logic circuit, logic element, pattern recognition, algorithm, electronic feed-back, automaton

ABSTRACT: Logic circuits made up of threshold elements are used as the basis for a learning automaton. These bases were proposed by Varshavskiy in 1962. The problem of pattern recognition is solved by finding the logic function which divides the sets of independent binary variables into two classes. Where Varshavskiy used an ideal logic circuit of threshold elements, in the present work the weight factors of the input of every threshold element in the first layer do not change during teaching and can accept only one of three fixed values +1, 0, -1. With respect to this, the inputs of a threshold element divide into activating ($\xi=+1$), retarding ($\xi=-1$) and blank ($\xi=0$). The thresholds of all the elements are the same and remain constant

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ACC NR: AT6009442

0

throughout the entire process. Every threshold element realizes the function

$y_i = \text{sign} \left[\sum_{j=1}^n \xi_j x_{ij} - \eta \right]$, where ξ_j is the weight factor of the j -th input; x_{ij} is the value of the binary input variable at the i -th input; η is the threshold value; n is the number of the inputs of the automaton and $j = 1, 2, 3, \dots, n$. The specific advantages of this automaton are the large volume of information about the signal, the parallel processing principle, and the use of distributed memory. It should be added that there are individual memory units for storing weight factors for each threshold element. The automaton was used in 1962 for discriminating the letters of the Russian alphabet, numbers, and various geometric figures. The methodology for teaching the automaton is discussed. Algorithms were used in the majority of cases. Feedback was discontinued and every element was checked for its correct answer to the teaching sequence. The teaching process was continued for those elements which gave wrong answers. Curves are given showing the increase in the number of correct answers for the elements of the automaton. A part of the experiment consisted of finding out whether the automat was able to recognize new elements of the images already incorporated. This phase of the experiment was called "checking the automaton for generalization." Under these conditions 60 to 80% of the answers were correct. The automaton was simulated on high speed digital computers when the linear law of weight factor change was verified. It is shown that the automaton becomes more flexible with an increase in the number of elements or the complexity of structure. Orig. art. has: 6 figures, 4 formulas.

SUB CODE: 09, ⁰⁵ / SUBM DATE: 26Oct65 / ORIG REF: 001

Card 2/2 BLG

SULS, R

Study of Arbutus unedo and its application in fruit in-
dustry D. Sula, H. Kvedar, and D. Horgas (Central inv.)

Regio: Sula, H. Kvedar, and D. Horgas (Central inv.)
Regio: Sula, H. Kvedar, and D. Horgas (Central inv.)

SUL'SKIY, Khaim Davydovich; CHERNYAK, I., red.; STEPANOVA, N., tekhn.red.

[Technical norms for machining in mechanical shops] Tekhnicheskoe normirovanie stanochnykh rabot v mekhanicheskikh tsakhakh. Minsk, Gos.izd-vo BSSR. Red.nauchno-tekhn.lit-ry, 1959. 234 p. (MIRA 13:1)
(Factory management)

MOLNAR, Laszlo, okleveles banyamernok; POTHORNIK, Jozsef; LASSAN, Jozsef, banyamernok; BERCSENYI, Lajos, banyamernok; SZEKENYI, Ferenc, banyamernok; FENYES, Gyula, banyamernok; SULT, Tibor, banyamernok; ZSUFFA, Miklos, banyamernok; JAMBRICH, Gyula, banyamernok; REVVALVI, Janos, banyamernok; SZENDREY, Zoltan, banyamernok; BOCSI, Otto, banyamernok; SCHAFER, Peter, banyatechnikus; SZTERMEN, Jozsef, banyamernok, muszaki fejlesztési csoportbeli feleloso; MAGYARFY, Karoly, gepeszmernok; SANDOR, Gaspar, banyamernok; VISKARDI, Laszlo, gepeszmernok; GORDOS, Pal, gepeszmernok; CHMELL, Ferenc, gepeszmernok; ALMASIM Geza, gepeszmernok; AJTAY, Zoltan, dr., banyamernok; MARTOS, Ferenc, dr., banyamernok

Conference on technical development in Salgotarjan. Bany lap 97 no.10:720-722 O '64.

1. Nograd Coal Mining Trust (for Pothornik, Lassan and Ber-
- csenyi). 2. Nagybatnóy Colliery (for Szebenyi, Fenyés,
- Molnar, Sult and Chmell). 3. Mizserfa Colliery (for Zsuffa and
- Jambrich). 4. Matranovak Colliery (for Revfalvi, Szendrey and
- Bocsi). 5. Kanyas Colliery (for Schaffer, Sztermen and Magyarfy).
6. Zagyva Colliery (for Sandor, Viskardi and Gordos). 7. Director,
- Mining Research Institute, Budapest (for Ajtay). 8. Department
- Chief, Mining Research Institute, Budapest (for Martos).

SUITAN, N.N.

Method for the drip transfusion of drugs. *Pel'd. i akush.* 21 no.11;
41-42 N '56. (MLRA 9:12)

1. Chernooostrovskaya rayonnaya bil'nitsa Khmel'nitskoy oblasti
(DRUGS--ADMINISTRATION AND DOSAGE)

SULTAN, N.H.

Foreign body in uterus with central attachment of the placenta.
Akush. i gig. 33 no.2:91 Mr-Apr '56. (MLRA 9:7)

1. Iz Chernooostrovskoy bol'nitsy Kemel'nitskoy oblasti
(UTERUS--FOREIGN BODIES) (PREGNANCY, COMPLICATIONS OF)

SULTAN, N.N.; MOSHINSKAYA, L.I.

Two cases of partial uterine rupture in pregnancy diagnosed by crepitation when palpated. Akush. i gin. 33 no.3:my-Je '57.

(MLRA 10:8)

1. Iz Chernoo-Ostrovskoy rayonnoy bol'nitsy Khmel'nitskoy oblasti

(UTERUS, rupt.

partial, in pregn., diag. by crepitation when palpated (Rus))

(PREGNANCY, compl.

partial uterine rupt., diag. by crepitation when palpated (Rus))

POPOV, A.A.; SULTAN, N.N.

Treatment of patients with calculi in the intramural and juxtavesical portions of the ureter. Vrach.delo no.11:124-125 N '60. (MIRA 13:11)

1. Bol'nitsa L'vovskoy zheleznoy dorogi.
(CALCULI, URINARY)

SULTAN, N.N.; POPOV, A.A.

Bilateral diverticula of the ureters. Urologia 25 no. 5:62-63 S-0
'60. (MIRA 14:1)

(URETERS—DISEASES)

POPOV, A.A.; SULTAN, N.N.

Rare case of triorchidism. Vrach.delo no.3:151-152 Mr '63.
(MIRA 16:4)

1. Urologicheskoye otdeleniye (nachal'nik - A.A.Popov)

Dorozhnoy bol'nitsy Iyovskoy zheleznoy dorogi.

(TESTICLE ABNORMALITIES AND DEFORMITIES)

SOBANSKI, Janusz; DOMZAL, Barbara; SULTAN, Teresa; ZELAWSKA, Helena

On physiological development of primitive vision, fixation and
binocular vision in man. Klin.oczn. 30 no.4:361-364 '60.

1. Z Kliniki Chorob Oczu A.M. w Lodzi, Kierownik: prof. dr med.
J.Sobanski.

(VISION physiol)

SULTAN-SHAKH, A.; KUDENKO.O.

The work of the Grozny Scientific Society of Research Physicians.
Lab.delo 2 no.5:29 S-0 56. (MLRA 9:11)

1. Predsedatel' Groznenskogo nauchnogo obshchestva vrachey-laborantov
(for Sultan-Shakh). 2. Sekretar' Groznenskogo nauchnogo obshchestva
vrachey-laborantov (for Kudenko)
(GROZNY--MEDICAL SOCIETIES)

SULTAN-SHAKH, A.

Development of the laboratory system in the Chechen-Ingush A.S.S.R.
Lab.delo 6 [i.e. 4] no. 4:61 J1-Ag '58 (MIRA 11:9)

1. Predsedatel' nauchnogo obshchestva vrachey-laborantov.
(CHECHEN-INGUSH A.S.S.R.—MEDICAL LABORATORIES).

SULPAN-SHAKH, T.M.

Preserving ransom. Kons. i ov. prom. 14 no.7:14 J1 '59.
(MIRA 12:9)

1. Tsentral'naya laboratoriya Ministerstva promyshlennosti
produkov'stvennykh tovarov Checheno-Ingushskoy ASSR.
(Ransom)

SULTAN-SHAKH, T.M.

Adding jelly juice to the fruit jam for improving its quality.
Kons. 1 ov. prom. 14 no.9:14 S '59. (MIRA 12:12)

1.TSentral'naya laboratoriya Ministerstva promyshlennosti prodovol'stven-
nykh tovarov Checheno-Ingushskoy ASSR.
(Cookery (Fruit))

SULTAN-SHAKH, Ye.G.

The OVT-1 and OVS "L'viv-1" fan-type sprinklers. Biul. tekhn.-
ekon. inform. no. 2:58-61 '61. (MIRA 14:2)
(Spraying and dusting equipment)

PROKOPENKO, S.F., inzh.; BURYI, Z.P., inzh.; OMELYUKH, Ya.K., inzh.;
SULTAN-SHAKH, Ye.G., inzh.

OVS orchard sprayer. Zashch. rast. ot vred. i bol. 6 no.3:19-20
Mr '61. (MIRA 15:6)

(Spraying and dusting equipment)

FROKOPENKO, S.F.; GUBAREV, M.I.; SULTAN-SHAKH, Ye.G.; BUKYY, Z.P.;
BUHD, V.S.; YEFREMOVA, N.I.

Results of the development of blower-type sprayers for orchards.
Zashch.rast.ot vred.i bol. 7 no.5:20-21 My '62. (MIRA 15:11)
(Spraying and dusting equipment)

SULTAN-S. AKH, Ye. G.

Basic factors determining the quality of orchard treatment by
means of blower-type sprayers. Zashch. rast. ot vred. i bol. 7
no. 6: 17-20 Je '62. (MIRA 15:12)
(Fruit culture) (Spraying and dusting equipment)

SULTANA, Viorica Al. (Bucuresti)

"Geographical problems." Vol.10. Reviewed by Viorica Al. Sultana.
Natura Geografie 15 no.3:95-96 My-Je '63.

Summary of Doc.

USSR/Medicine - Physiology

Card 1/1 Pub. 22 - 53/54

Authors : Sultanaliyev, A. S.

Title : ~~_____~~
About the sex differences in the sensitivity of the animal organism
toward certain agents of an external medium

Periodical : Dok. AN SSSR 102/5, 1051-1052, Jun 11, 1955

Abstract : Experiments were conducted on mice to determine which of the two
sexes is more sensitive to certain agents of external media (colds,
smoke, etc.). Results are tabulated. Eight USSR references (1925-1949).
Tables.

Institution : The Kirghiz State Medical Inst.

Presented by : Academician K. M. Bykov, February 24, 1955

SULTANALIYEV, A.S.

Electric-current sensitivity differences between male and female.
Dokl. AN SSSR 109 no.6:1215-1217 Ag '56. (MLRA 9:11)

1. Kirgisskiy gosudarstvennyy meditsinskiy institut, gorod Frunse.
Predstavleno akademikom K. M. Bukovym.
(Electrophysiology)

SULTANALIYEV, A.S.

Comparative lethality of ascending and descending direct currents
[with summary in English]. Biul.eksp.biol. i med. 43 no.1:51-53
Ja '57. (MIRA 10:8)

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. G.L.Frenkel')
Kirgizskogo meditsinskogo instituta (dir. - dotsent A.A.Aydaraliyev),
g. Frunze. Predstavlena doystvitel'nyy chlenom AMN SSSR V.N.
Chernigovskim

(ELECTRICITY, injurious effects,
comparative lethality of ascending & descending currents
(Rus))

YEVTUSHENKO, Gavriil Alekseyevich; SULTANALIYEV, Asek; IONOV, R.N., otv.
red.; KOVAL'CHUK, V.V., red. izd-va; ANOKHINA, M.G., tekhn. red.

[Agribiological characteristics of corn in the Issyk-Kul' region]
Agrobiologicheskie osobennosti kukuruzy v Priissykkul'e. Frunze,
Izd-vo AN Kirgizskoi SSR, 1961. 107 p. (MIRA 14:11)
(Issyk-Kul' region—Corn (Maize))

SULTANALIYEV, A.S.

Effect of seeding time on the growth and development of forage grasses
in the Chu Valley. Izv. AN Kir.SSR. Ser. biol. nauk 3 no.3:79-92
'61. (MIRA 14:12)

(CHU VALLEY--GRASSES)

(PLANTING TIME)

SULTANALIEV, A.S.

Growth and development of ~~large~~ grasses in relation in the length
of the day. Izv. AN Kr. SSR. Ser. biol. nauk 3 no.3:93-105 '61.
(MIRA 14:12)

(KIRGHIZISTAN--GRASSES) (PHOTOPERIODISM)

SULTANAYEV, A. A.

USSR/Geology

Card 1/1 : Pub. 22 - 24/41

Authors : Sultanaev, A. A.

Title : Stratigraphic layout of Upper-Paleozoic Era deposits in the Kolvo-Vishersk Country

Periodical : Dok. AN SSSR 98/2, 257-258, Sep 11, 1954

Abstract : Geological data on the Upper-Paleozoic Era deposits found in the Kolvo-Vishersk region, situated at the Ural-Timansk junction, are presented. Five USSR references (1934-1951). Table.

Institution : All-Union Petroleum Scientific Research Geological Exploration Institute

Presented by : Academician S. I. Mironov, May 20, 1954

SULTANAYEV, A.A.

Summary report on the No.1-P Khanty-Mansiysk key well. Avtoref.
nauch. trud. VNIGRI no.17:271-279 '56. (MIRA 11:6)
(Khanty-Mansiysk national area--Petroleum geology)
(Khanty-Mansiysk national area--Gas, Natural--Geology)

SULTANAYEV, A.A.

Carboniferous cross section at the Shartym River. Dokl.
AN SSSR 112 no.3:509-512 Ja '57. (MLRA 10:4)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologo-razvedochnyy institut. Predstavleno akademikom N.M. Strakhovym.
(Shartym Valley--Geology, Stratigraphic)

20-6-42/59

AUTHOR SULTANAYEV, A.A., SHLYKOVA, T.I

TITLE The Eostaffella facial complex in the Carbonaceous.
(Eoshtaffellovyy fatsial'nyy kompleks v karbone.- Russian)

PERIODICAL Doklady Akademii Nauk SSSR 1957, Vol 113, Nr 6, pp 1334-1337
(U.S.S.R.)

ABSTRACT In the carbonaceous deposits (from the Taurus horizon of the Visé stage up to the Kashir horizon of the Moscow stage) often a peculiar foraminifera complex is well developed in the mud, in organogenic mud, and often in algae limestones. Various eostaffella as well as archaediscides predominate here. Often bradyiines occur. Endothyres as well as globivalvulines are often present. Some typical Visé forms, however, as well as some middle carbonaceous genera lack. Some scientists are inclined to attach a stratigraphic importance to this complex. They class its deposits among the basis of the Bashkir stage, as "strata of Krasnaya Polyana" and parallelize them with the suite C₇ of the Denotes basin and with the upper parts of the suite C₄. The authors were able to make themselves conversant, according to some profiles, with the distribution of this foraminifera complex in the carbonaceous of the Russian Plateau and of the Ural. On this occasion it turned out that in the eostaffella

CARD 1/3

SULTANAYEV, A.A.

Recent data on the vertical distribution of foraminifers in
Devonian and Carboniferous boundary layers of the Southern
Urals. Dokl.AN SSSR 133 no.4:921-924 Ag '60.
(MIRA 13:7)
(Togusak Valley--Geology, Stratigraphic)

SULTANAYEV, A.A.

Boundary between the lower and middle Carboniferous on the eastern
slope of the Urals. Trudy VNIGRI no.163:337-420 '60. (MIRA 14:6)
(Ural Mountains--Geology, Stratigraphic)

SULTANAYEV, A.A.

"Stratigraphy of Lower Carboniferous sediments of the Northern and Central Urals based on the Foraminifera fauna. Visean stage" by N.P.Malakhova. Reviewed by A.A.Sultanayev. Izv.AN SSSR.Ser.geol. 27 no.8:111-115 Ag '62. (MIRA 15:8)

(Ural Mountains--Geology, Stratigraphic)

(Ural Mountains--Foraminifera, Fossil)

(Malakhova, N.P.)

SULTANAYEV, A.A.

Septacamera plicata Kut. in the Middle Carboniferous of the
slope of the Urals. Trudy VNIGRI no.190:458-462 '62.
(MIRA 16:1)
(Ural Mountains--Brachiopoda, Fossil)

SULTANAYEV, A.A.

Prospects for finding oil and gas in the Paleozoic of the northern part of the Paleo-Urals and adjacent part of the Eastern Ural Mountains. Trudy VNIGRI no.220. Geol. sbor. no.8:93-114 '63. (MIRA 17:3)

SULTANAYEV, A.A.

Reefs of Moscow age in the Urals. Dokl. AN SSSR 165
no.4:904-906 D '65. (MIRA 18:12)

1. Vsesoyuznyy nef'tyanoy nauchno-issledovatel'skiy
geologicheskiy institut. Submitted March 4, 1965.

SULTANAYEV, I.Kh.

Origin of natural plague foci. Zool.shur. 39 no.1:29-34
Ja '60. (MIRA 13:5)

1. Central-Asian Research Anti-Plague Institute, U.S.S.R.
Ministry of Public Health, Alma-Ata.
(Plague) (Rodents as carriers of disease)

SULTANBAYEV, A. S.

Dissertation: "Refinement of Methods for Modifying Spring Wheat During Wintering." Cand Biol Sci, Inst of Genetics, Acad Sci USSR, Moscow, Oct-Dec 53.
(Vestnik Akademii Nauk, Moscow, Jun 54)

SO: SUM 318, 23 Dec 1954

USSR/General Biology - Genetics. Genetics of Plants.

B

Abs Jour : Ref Zhil Biol., No 6, 1959, 23667

Author : Sultanbayev, A.S.

Inst : Kirgiz University

Title : On the Problem of Change of Spring Wheat Into Winter Wheat.

Orig Pub : Uch. zap..Biol. fak. Kirg. un-t, 1957, vyp. 8, 75-80

Abstract : The author points out that in the initial spring sowing, independently on the time of sowing, Spring wheat does not yet turn into Winter wheat, but the decisive moment in the process of transformation of spring wheat into winter wheat is the time of Fall sowing, whose conditions are the basis of formulation of Winter wheat properties. --- T.K. Lepin

Card 1/1

SULTANBAYEV, M.

Forecasting the strong "ulan" winds over Lake Issyk-Kul'. Trudy
Sred.-Az. nauch.-issl. gidrometeor. inst. no.1:111-114 '59.

(MIRA 13:8)

(Issyk-Kul'—Winds)

SULTANBAYEV, M.

Local weather signs for Issyk-Kul' Province. Trudy Sred.-Az. nauch.-
issl. gidrometeor. inst. no.1:156-157 '59. (MIRA 13:8)
(Issyk-Kul' Province--Weather forecasting)

ZABRODKIN, A.G.; SULTANBEK, P. Kh.

Use of liquid coal phenols in the veneer industry. Der.prom. 5
no.8:9-11 Ag '56. (MLRA 9:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.
(Veneers and veneering) (Phenols)

SULTANBEK R. KH.

USSR /Chemical Technology. Chemical Products
and Their Application

I-25

Synthetic polymers. Plastics.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32480

Author : Zabrodkin A.G., Sultanbek R. Kh.

Title : Use of Liquid Phenols Derived from Coal in Ply-
wood Manufacture

Orig Pub: Derevoobrabat. prom-st', 1956, No 8, 9-11

Abstract: A procedure has been worked out for the prepara-
tion of adhesive resins from liquid phenols of
coal, supplied in accordance with GOST 5361-50,
without addition of synthetic phenols. Two man-
ufacturing formulas of the resin are recommended:
containing 40% solids and 5% alkali and one

Card 1/2

USSR /Chemical Technology. Chemical Products
and Their Application

I-25

Synthetic polymers. Plastics.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32480

containing 45% solids and 4.5% alkali. The
resins prepared according to the two formulas
have identical physico-chemical characteristics
and adhesive properties.

Card 2/2

ZABRODKIN, A.G., kand.tekhn.nauk; SULTANBEK, R.Kh., inzh.

Use of phenolates in the manufacture of gluing resins.
Der.prom. 9 no.5:16 My '60. (MIRA 13:7)
(Resins, Synthetic) (Phenols)

ALEKSEYEVA, V.P.; P'YANKOVA, M.D.; SULTANBEK, R.Kh.

Albumin-urea-formaldehyde glue for particle boards. Der.prom. 10
no.5:20 My '61. (MIRA 14:5)
(Glue) (Hardboard)

SULTANARAYEV, M.

Tire dismounting devices used in field conditions. Avt.transp.
35 no.9:28-29 S '57. (MIRA 10:10)
(Automobiles--Tires)

SULTANGALEYEV, N.; KHARSON, S. (Ufa)

The floor belongs to you, public controller. Sov. profsoyuzy
19 no.21:6-8 N '63. (MIRA 17:1)

1. Predsedatel' Bashkirskogo oblastnogo komiteta professional'-
nogo soyuza rabochikh stroitel'stva i promyshlennosti
stroitel'nykh materialov (for Sultangaleyev). 2. Spetsial'nyy
korrespondent zhurnala "Sovetskiye profsoyuzy" (for Kharson).

L 1-53-66 EMT(m)/EPF(c)/BPR/EIP(j) Pc-4/Pr-4/Ps-4 RPL WW/RM
ACCESSION NR AP4044194 S 0079/64/034/008/2620/2622

AUTHOR Shostakovskiy, M. F., Sokolov, B. A., Koziyenko, A. I.,
Yermakova, L. I., Shtangayeva, R. G.

TITLE High temperature condensation of chlorosilane hydrides with chloroaryl-
fluoro- and chloroarylchlorosilanes

SOURCE: Zhurnal obshchey khimii, v. 34, no. 8, 1964, 2620-2622

TOPIC TAGS: chloroarylfluorosilane, chloroarylchlorosilane, condensation,
high temperature condensation, synthesis

ABSTRACT: The high temperature condensation of chlorosilane hydrides with
chloroaryl fluorosilanes or chloroarylchlorosilanes, specifically the reactions at
500-550°C of trichlorosilane with p-chlorophenyltrifluorosilane or with p-chloro-
phenyltrichlorosilane, or of methyldichlorosilane with mixtures of m- and o-iso-
mers of chlorophenyltrifluorosilane, or with m-, o- and p-isomers (7:2:1 ratio)
of chlorophenyltrichlorosilane, was investigated. The chloroarylfluorosilanes

Card 1/2

L 17535-65

ACCESSION NR: AP4044194

entered the high temperature condensation reaction analogously to the chloroaryl-chlorosilanes, but the compounds containing the trichlorosilyl group gave a notably higher yield of condensation products in comparison to compounds containing the dichlorosilyl group. The p-tetrachlorosilylbenzene $[p\text{-Cl}_3\text{SiC}_6\text{H}_4\text{SiCl}_3]$ was synthesized more readily from trichlorosilane and p-nitrophenyltrichlorosilane than from trichlorosilane with p-dichlorobenzene. The following novel compounds were synthesized: $p\text{-(F}_3\text{SiC}_6\text{H}_4\text{SiCl}_3)_2$, $m\text{-(F}_3\text{SiC}_6\text{H}_4\text{SiCl}_3)_2$, $p\text{-(Cl}_2\text{(CH}_3\text{)Si)C}_6\text{H}_4\text{SiF}_3$, $p\text{-(F}_3\text{Si)C}_6\text{H}_4\text{SiF}_3$, $p\text{-(Cl}_2\text{(CH}_3\text{)Si)C}_6\text{H}_4\text{SiCl}_3$. Orig. cont. has no graphics

ASSOCIATION: None

SUBMITTED: 18 Jun 63

ENCL: 00

SUB CODE: GC

NO REF SOV: 003

OTHER: 002

Card 2/2

ACC NR: AP7006249

SOURCE CODE: UR/0079/67/037/001/0260/0264

AUTHOR: Sokolov, B. A.; Grishko, A. N.; Kuznetsova, T. A.; Sultangarayev, R. G.

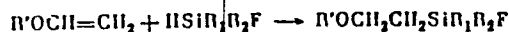
ORG: none

TITLE: Studies in the area of fluoroorganosilicon compounds. Part 4: Synthesis of oxygen-containing fluoroorganosilicon compounds

SOURCE: Zhurnal obshchey khimii, v. 37, no. 1, 1967, 260-264

TOPIC TAGS: vinyl compound, silane, fluorinated organic compound, ether

ABSTRACT: The addition of various fluorosilanes of the general formula $\text{HSiR}_1\text{R}_2\text{F}$ to vinyl isopropyl, vinyl butyl, vinyl isoamyl, vinyl phenyl ether and vinyl ethers of 1,3-dioxolanes in the presence of a 0.1 M solution of chloroplatinic acid in isopropyl alcohol was studied. In all cases except that of vinyl phenyl ether, the addition of fluorosilanes occurs in 80-90% yield according to the reaction



In the case of vinyl phenyl ether, the addition according to the above reaction is associated with the formation of $\text{R'OSiR}_1\text{R}_2\text{F}$. The twenty-one new compounds which were synthesized are shown in Tables 1 and 2. Vinyl ethers of 1,3-dioxolanes were kindly

Card 1/4

UDC: 547.245+547.371

ACC NR: AP7006249

Compound	TABLE 1 Formula	Yield, %	BP (p, mm)	d_4^{20}	n_D^{20}	MAD	
						measured	calculated
$i\text{-}i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(i\text{-}i\text{-}C_3H_7)F$	$C_9H_{21}FOSi$	86	63° (10)	0.8816	1.4060	53.59	54.02
$i\text{-}i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(C_4H_9)F$	$C_{10}H_{23}FOSi$	90	43 (1)	0.8743	1.4092	58.38	58.66
$i\text{-}i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(i\text{-}i\text{-}C_3H_7)F$	$C_{11}H_{23}FOSi$	90	73 (6)	0.8604	1.4132	63.22	63.31
$C_4H_9OCH_2CH_2Si(CH_3)(C_3H_7)F$	$C_{10}H_{23}FOSi$	84	54 (2.5)	0.8779	1.4120	58.41	58.67
$C_4H_9OCH_2CH_2Si(CH_3)(i\text{-}i\text{-}C_3H_7)F$	$C_{12}H_{27}FOSi$	90	72 (2)	0.8736	1.4205	67.98	67.96
$i\text{-}i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(i\text{-}i\text{-}C_3H_7)F$	$C_{11}H_{23}FOSi$	98	67 (2)	0.8767	1.4178	63.33	63.31
$i\text{-}i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(C_4H_9)F$	$C_{12}H_{27}FOSi$	95	61 (1.5)	0.8742	1.4179	67.44	67.96
$i\text{-}i\text{-}C_3H_7OCH_2CH_2Si(CH_3)(i\text{-}i\text{-}C_3H_7)F$	$C_{12}H_{27}FOSi$	93	104 (7)	0.8697	1.4212	72.48	72.61
$C_4H_9OCH_2CH_2Si(CH_3)(C_4H_9)F$	$C_{13}H_{29}FOSi$	83	96 (2)	0.9895	1.4810	69.13	69.02
$C_4H_9OCH_2CH_2Si(CH_3)(i\text{-}i\text{-}C_3H_7)F$	$C_{12}H_{27}FOSi$	74	110 (3)	0.8807	1.4790	73.56	73.76
$C_4H_9OSi(CH_3)(C_4H_9)F$	$C_{12}H_{27}FOSi$	—	58 (1)	0.9841	1.4640	59.54	59.76
$C_4H_9OSi(CH_3)(i\text{-}i\text{-}C_3H_7)F$	$C_{12}H_{27}FOSi$	—	70—71 (1)	0.9805	1.4585	63.17	63.51

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Table 2

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Compound	TABLE 2 Formula	Yield (%)	BP (p. mm)	d_4^{20}	n_D^{20}	MRD	
						measured	calculated
	$C_{11}H_{28}FO_3Si$	87	116-117° (5)	0.9922	1.4282	66.79	66.15
	$C_{13}H_{27}FO_3Si$	88	97 (2)	0.9828	1.4303	73.25	73.80
	$C_{13}H_{28}FO_3Si$	88	105 (1)	0.9730	1.4322	77.95	78.45
	$C_{13}H_{27}FO_3Si$	76	94-97 (1)	0.9870	1.4310	73.82	73.80
	$C_{11}H_{28}FO_3Si$	82	116-117 (3)	0.9798	1.4338	77.70	78.77
	$C_{16}H_{33}FO_3Si$	77	150 (3)	0.9674	1.4378	86.94	87.74
	$C_{17}H_{35}FO_3Si$	84	126-127 (1)	0.9612	1.4366	92.39	91.50
	$C_{13}H_{28}FO_3Si$	77	140 (6)	0.9765	1.4361	82.08	83.09
	$C_{17}H_{35}FO_3Si$	82	126 (1)	0.9641	1.4395	91.36	92.39

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