

15-57-8-11508

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8,  
p 204 (USSR)

AUTHOR: Simonenko, T. N.

TITLE: Aeromagnetic Interpretation of the Top Surface Basement  
Structure in Western Siberian Lowland (Ispol'zovaniye  
resul'tatov aeromagnitnoy s"yemki dlya vyyasneniya  
struktury poverkhnosti fundamenta Zapadno-Sibirskoy  
nizmennosti)

PERIODICAL: Inform. sb. Vses. n.-i. geol. in-t, 1956, Nr 3,  
pp 96-102

ABSTRACT: Aeromagnetic surveys are commonly used for determining  
the extent of folded zones and for contouring individual  
intrusions in plain regions. First, a contour map of  
the magnetic anomalies of the area (the Western Siberian  
Lowland) was prepared. The area was then mapped from  
the aeromagnetic survey data to the scales of 1:1 000 000  
and 1:200 000. The depth to the intruding bodies was

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Aeromagnetic Interpretation of the Top Surface Basement (Cont.)

usually determined as the average of the depths determined by standard methods and also by the integral method of T. N. Simonenko. The author evaluates the accuracy of determination of the depths of the bed as 15 percent. A description of the structural map is given.

Card 2/2

V. M. Devitsin

SIMONENKO, T.N.

Aeromagnetic surveying abroad. Inform. sbor. VSEGEI no.4:150-  
156 '56. (MLRA 10:4)

(Magnetism, Terrestrial)

ROZE, T.N.

A contour diagram of the surface of magnetic masses of folded basic rocks in the West Siberian Lowland. Dokl.AN SSSR 106 no.5:897-900  
F '56. (MIRA 9:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
Predstavleno akademikom N.S.Shatskim.  
(Siberia, Western--Prospecting--Geophysical methods)

15-57-10-14539

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,  
p 193 (USSR)

AUTHOR: Roze, T. N.

TITLE: The Determination of Some Characteristics of Mineral  
Deposits by Magnetic and Gravitational Observations  
(Opredeleniye nekotorykh kharakteristik zalezhi po  
magnitnym i gravitatsionnym nablyudeniyam)

PERIODICAL: Materialy Vses. n.-i. geol. in-ta, 1956, Nr 8,  
pp 195-207

ABSTRACT: The formula of Poisson, well-known in the theory of  
potential, unites magnetic (U) and gravitational (W)  
potentials. From magnetic and gravitational obser-  
vations, it is possible to define the ratio  $I/\sigma$ , where  
I is the excess intensity of magnetization and  $\sigma$  is the  
excess density of the body. Equations are given for  
calculating  $I/\sigma$  for two-dimensional bodies with vertical  
and inclined magnetization. An expression for  $I/\sigma$  is

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15-1957-3-3670

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,  
p 168 (USSR)

AUTHOR: Roze, T. N.

TITLE: Depth Approximation to Magnetized Bodies (Priblizhennaya  
otsenka glubiny zaleganiya namagnichennykh tel)

PERIODICAL: Materialy Vses. n-i geol. in-ta, 1956, Nr 8, pp 208-  
223

ABSTRACT: A number of formulas are obtained for evaluating the depths to magnetized bodies of arbitrary form, using the relationship between vertical values of the magnetic field  $z$  and the horizontal distance  $x$ . The author begins with the asymptotic behavior of the component  $z$  at infinity and with the theorem of Gauss on the passage of a vector through a surface. Having obtained formulas for bodies of simple geometric form, he then shows, with numerous examples, their usefulness for bodies of arbitrary forms. For a two-dimensional layer with the lower boundary at infinite depth, the depth of

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15-1957-3-3670

## Depth Approximation to Magnetized Bodies

the upper boundary of the layer may be calculated by the equation

$$h = \pi \frac{\lim_{x \rightarrow \infty} (x^2 Z) x}{\int_{-\infty}^{\infty} Z dx}$$

The calculation shows that with a definite value  $x$ , equal to only  $4h$  or  $5h$ , the accuracy approaches 3%. For two-dimensional layers with finite depths, the center of gravity of the section is

$$h_c = \frac{\lim_{x \rightarrow \infty} (x^2 Z) x}{\int_a^{x_c} Z dx},$$

where  $a$  is the abscissa point on the profile at which  $Z$  is the measured value. To shorten the profile (a necessity in making calculations), the author found the relationship between the

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15-1987-3-3670

## Depth Approximation to Magnetized Bodies (Cont.)

magnetic moment of a unit length of a cylindrical body and the maximum value of  $x^2 Z$ . From these he obtained the equation

$$h_c = \frac{8(x^2 Z)_{\max}}{\int_a^a Z dx},$$

which is true for layers with thicknesses not greatly in excess of the depth to the body. Then a formula is obtained for the determination of depth to the upper edge of a body bounded in a horizontal direction along the strike but unbounded at depth:

$$h = \frac{\lim_{\rho \rightarrow \infty} (\rho^3 Z)_{\rho}}{\int_{\rho} \rho^3 Z d\rho},$$

where  $\rho$  is the distance from  $Z_{\max}$  to the point of observation. For three-dimensional layers of finite thickness, the formulas

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15-1957-3-3670

## Depth Approximation to Magnetized Bodies

below are proposed:

$$h_c = \frac{0.385 \lim_{\rho^3 Z \rho \rightarrow \infty}}{\int_0^a \rho Z d\rho} \quad \text{and} \quad h_c = 1.04 \sqrt{\frac{\lim_{(\rho^3 Z) \rho \rightarrow \infty}}{\int_0^a Z d\rho}}$$

These are obtained by assuming a spherical body. Another equation is cited for use when the profile has a finite length:

$$h_c = \frac{1.91 (\rho^3 Z)_{\max}}{\int_0^a \rho Z d\rho}$$

The application of the formulas is illustrated by numerous tables and calculations; the defects are also indicated.

Card 4/4

G. I. K.

SIMONENKO, Tat'yana Nikolayevna (AU Sci-Res Pool Inst) awarded sci degree of Doc Physico-Math Sci for the 28 Oct 57 defense of dissertation: "Problem of determining the structure of ~~the~~ a buried folded substructure through data of aeromagnetic survey" at the Council, Leningrad State Univ imeni Zhdanov; Prot No 17, 21 Jun 58.  
(BXVO, 12-58,21)

ALESKEROVA, Z.T.; KRITSUK, G.S., LI, P.F., LITVINENKO, I.V.; OSADCHAYA, D.V.;  
OSTROUMOVA, A.S.; OSYKO, T.I.; RAVDONIKAS, O.V.; ROSTOVTSEV, N.N.;  
SIMONENKO, T.N.; TOLSTIKHINA, M.A.; YHBSIN, B.B.; BABINTSEV, red.  
izd-va; KRYNOCHKINA, K.V., tekhn.red.

[Geological structure and oil-producing prospects of the West  
Siberian Plain] Geologicheskoe stroenie i perspektivy nefte-  
gazonosnosti Zapadno-Sibirskoi nizmennosti. Pod obshchey red.  
N.N.Rostovtseva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol.  
i okhrane neдр, 1958. 300 p. (MIRA 11:12)

1. Leningrad. Vsesoyuznyy geologicheskii institut.  
(West Siberian Plain--Petroleum geology)

ROSTOVTSSEV, N.N.; SIMONENKO, T.N.

Oil and gas prospecting in the West Siberian Plain. Geol.nofti.1  
gaza 3 no.6:8-13 Je '59. (MIRA 12:8)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki  
i mineral'nogo syr'ya.  
(West Siberian Plain--Petroleum geology)  
(West Siberian Plain--Gas, Natural--Geology)

ROSTOVTSEV, N.N.; SIMONENKO, T.N.; UMANTSEV, D.F.

Structure of the folded basement of the West Siberian Plain.

Trudy SNIIGGIMS no.1:11-17 '59.

(MIRA 15:4)

(West Siberian Plain—Geology, Structural)

3.9110 (1121, 1482)

29653  
S/169/61/000/005/003/049  
A005/A130

AUTHOR: Simonenko, T.N.

TITLE: The computation of the derivatives of a "pseudogravitational" field from magnetic survey data for the case of the plane problem

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 5, 1961, 30, abstract 5 A 257. (Tr. In-ta geol. i geofiz. Sib. otd. AN SSSR, 1960, no. 1, 55-58)

TEXT: Using the Poisson theorem for two-dimensional bodies and assuming the body to be magnetized in the direction of the earth's field, the author submits formulae which, for given values of the vertical component of an anomalous magnetic field or the values of  $\Delta T$ , enable one to plot curves for those vertical and horizontal components of the said field that are exempt from the influence of inclined magnetization. These curves correspond to the  $\frac{\partial \Delta T}{\partial z}$  and  $\frac{\partial \Delta T}{\partial x}$  curves of the "pseudogravitational" field.

[Abstractor's note: Complete translation.]  
Card 1/1

SIMONENKO, T.N.

Determining the direction of magnetism of bodies in place of their occurrences. Geol. i geofiz. no.2:137-141 '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
(Rocks--Magnetic properties)

MAROCHKIN, N.I., glavnyy red.; MARKOVSKIY, A.P., zamestitel' glavnogo red.;  
TATARINOV, P.M., zamestitel' glavnogo red.; BELYAKOVA, Ye.Ye.,  
nauchnyy red.; GANESHIN, G.S., red.; ZAYTSEV, I.K., red.; KULIKOV,  
M.V., red.; KUREK, N.N., red.; KNIPOVICH, Yu.N., red.; LUR'YE, M.L.,  
red.; SIMONENKO, T.N., red.; SPIZHARSKIY, T.N., red.; STERLIN, D.Ya.,  
red.

[Results of the research carried out by the All-Union Geological  
Institute in 1959] Ezhegodnik po rezul'tatam rabot VSEGEI za 1959  
g. Leningrad, Otdel nauchno-tekhn.informatsii VSEGEI, 1961. 195 p.  
(Informatsionnyi sbornik, no. 44). (MIRA 15:4)  
(Geology)



MARCOCHKIN, N.I., glav. red.; MARKOVSKIY, A.P., zam. glav. red.;  
UL'YANOV, N.K., zam. glav. red.; GANESHIN, G.S., red.;  
ZAYTSEV, I.K., red.; KHIPOVICH, Yu.N., red.; KULIKOV, M.V., red.;  
LABAZIN, G.S., red.; LUR'YE, M.L., red.; SINGOLENKO, T.N., red.;  
SPIZHARSKIY, T.N., red.; STERLIN, D.Ya., red.; TATARINOV, P.M., red.;  
BELYAKOVA, Ye.Ye., nauchnyy red.; MAKRUSHIN, V.A., tekhn. red.

[Yearbook of the results of studies by the All-Union Geological  
Institut] Ezhegodnik po rezul'tatam rabot VSEGEI. Leningrad,  
Otdel nauchn.-tekhn. informatsii, 1961. 203 p. (Leningrad.  
Vsesoyuznyi geologicheskii institut. Informatsionnyi sbornik,  
no.49.) (MIRA 15:6)

(Geology)

SIMONENKO, T.N.

Use of magnetometric data for studying crustal deep structure of platform areas. Sov.geol. 5 no.8:3-15 Ag '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
(Earth—Surface)

S/215/62/000/008/001/002  
1046/1246

AUTHOR: Sinonenko, T.N.

TITLE: The use of magnetometric data in studies of the abyssal structure of the earth's crust in platform regions.

PERIODICAL: Sovetskaya geologiya, no. 8, 1962, 3-15

TEXT: Geophysical materials collected by IZMIR AN SSSR (Institute of the Terrestrial Magnetism, the ionosphere and Propagation of Radiowaves AS USSR) all over the USSR show that the existence of the continental anomalies cannot be due to the effect of the earth's crust, and that the behavior of the basaltic layer in the crust does not affect the distribution of the geomagnetic field. The anomalies detectable on the background of the normal geomagnetic field originate in thermally magnetized geological bodies in the granitic layer; thus, in principle, the thickness of the granitic layer in the earth's crust on the continents can be determined from magnetometric measurements. There are 5 figures and 1 table.

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The use of magnetometric data....

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut  
(The All-Union Scientific Research Geological Institute)

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Card 2/2

DEDEYEV, V.A.; NALIVKIN, V.D.; SIMONENKO, T.N.; SOKOLOV, V.N.;  
SHABLINSKAYA

Structure of the Pre-Middle Jurassic basement of the West  
Siberian Plain in the light of new data. Sov. geol. 5 no.7:26-40  
Jl '62. (MIRA 15:7)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologoraz-  
vedochnyy institut. Vsesoyuznyy nauchno-issledovatel'skiy  
geologicheskyy institut i Nauchno-issledovatel'skiy institut  
geologii Arktiki.  
(West Siberian Plain--Folds (Geology))

SIMONENKO, T. N.

Importance of magnetic measurements in the oceans to studies of the structure of the earth's crust.

Title: Conference on problems of marine magnetic surveys (held in Moscow in April 1962.

Source: Okeanologiya, v. 3, no. 4, 1963, p. 752

GURARI, F.G.; KAZAKINOV, V.P.; MIRONOV, Yu.K.; NALIVKIN, V.D.;  
NESTEROV, I.I.; OSYKO, T.I.; KOVNIN, L.I.; ROJTOVTSEV,  
N.N.; RUDKEVICH, M.Ya.; SIMONENKO, T.N.; SOKOLOV, V.N.;  
TROFIMUK, A.A.; CHOCHIA, N.G.; ERV'YE, Yu.G.;  
OMBYSH-KUZNETSOV, S.O., red.; LOKSHINA, O.A., tekhn.red.

[Geology and oil and gas potentials of the West Siberian  
Plain, a new tank farm of the U.S.S.R.] Geologiya i nefte-  
gazonosnost' Zapadno-Sibirskoi nizmennosti-novoi neftianoi  
bazy SSSR. Novosibirsk, Izd-vo Sibirskogo otd-nia, 1963.  
199 p. (MIRA 17:1)

SIMONENKO, T.N.; TOLSTIKHINA, M.M.

Convergence of the Ural Mountains and the Russian Platform.  
Trudy VSEGEI 85:131-135 '63. (MIRA 16:11)



SIMONENKO, T.N.; TOLSTIKHINA, M.M.

Some characteristics of the abyssal structure of the U.S.S.R.  
Sov. geol. 8 no.4:74-89 Ap '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.

NALIVKIN, V.D.; DEDEYEV, V.A.; IVANTSOVA, V.V.; KATS, Z.Ya.; KRUGLIKOV, N.M.;  
LAZAREV, V.S.; SVIRCHKOV, G.P.; CHERNIKOV, K.A.; SHABLINSKAYA, N.V.;  
Prinimal učestviye: ZHABREV, I.P.; ROZANOV, L.N.; SOFRONITSKIY, P.A.;  
KHAIN, V.Ye.; SIMONENKO, T.N.; SOKOLOV, V.N.; YAKOVLEV, O.N., gidrogeolog

[Comparative analysis of the oil and gas potential and tectonics  
of the West Siberian and Turan-Scythian platforms.] Srovnitel'nyi  
~~analiz nefti~~ analiz nefti i gazozhiznosti i tektoniki Zapadno-Sibirskoi i Turano-  
Skijskoi plit. Leningrad; Nedra, 1965. 322 p. (Leningrad.  
Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi  
institut. Trudy, no.236) (MIRA 18:6)

ACC NR: AT6028375

(N)

SOURCE CODE: UR/0000/65/000/000/0104/0110

AUTHOR: Simonenko, T. N.

ORG: none

TITLE: Anomalous magnetic field and tectonics of the USSR

SOURCE: International Geological Congress. 22d, New Delhi, 1964. Geologicheskiye rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady sovetskikh geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 104-110

TOPIC TAGS: magnetic field, magnetic anomaly, earth magnetism, platform, sedimentary rock, *tectonics*

ABSTRACT: This article presents some aspects of the anomalous magnetic field and tectonic structure of the USSR. The distribution of magnetic anomalies in the USSR is shown on a map compiled from aeromagnetic  $\Delta T$  survey data and from airborne and land  $\Delta Z$  survey data. The Earth's uniform magnetization and world anomalies are represented as the normal field. In a weak field, the smallest interval between the  $(\Delta T)_a$  isoline is 100 gammas. As a results of the aeromagnetic survey, certain differences have been established between characteristics of the magnetic field of ancient platforms and of Epihercynian platforms and folded areas of different ages. The magnetic field of Precambrian platforms, particularly that of the Russian platform, clearly reveals the block character of the folded basement structure. Some blocks of the basement extending for 100 km are shown as areas of a specific magnetic field which

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L 2772B-66 FBD/EWT(1)/EWT(m)/EEC(k)-2/T/EWP(k)/EWA(h) IJP(c) WH/WG  
ACC NR AP6015429 SOURCE CODE: UR/0051/66/020/005/0853/0858

AUTHOR: Dukhopel, I. I.; Simonenko, T. V.; Urnis, I. Ye.

ORG: none

TITLE: Investigating the peak coherence of ruby laser emission

SOURCE: Optika i spektroskopiya, v. 20, no. 5, 1966, 853-858

TOPIC TAGS: laser emission, ruby laser, light interference, laser emission coherence

ABSTRACT: The authors study the integral coherence of laser emission together with emission coherence at isolated peaks. The specimens used were 6 cylindrical ruby crystals with diameters of 6.5 and 13 mm measuring 65 and 80 mm in length respectively with dielectric coatings on the end or placed in a resonator with plane mirrors. All specimens were oriented at 90 degrees to the optical axis and 4 of the crystals had polished lateral surfaces. The other 2 cylinders were frosted on the sides--one completely and the other partially. Radiation from the specimen was sent through a diaphragm with 2 narrow vertical slits and a section of the interference field formed was then cut off by a horizontal slit and photographed. It was found that interference patterns are formed at all peaks regardless of crystal quality, the distance between vertical slits in the diaphragm, or the level of pumping energy. The pattern contrast is extremely high for most of the peaks. Most of the interference patterns

UDC: 621.375.9: 535

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ACC NR: AP6015429

show a characteristic relative shift in the interference bands at the individual peaks. This shift is usually lower at the beginning and end of emission, increasing noticeably at the midpoint. The shift is irregular, sometimes taking place extremely slowly and sometimes reaching half the width of the interference band in adjacent peaks. Among the fundamental causes for this relative shift are: 1. A change in band width due to variations in wavelength during emission, 2. A variation from peak to peak in the inclination of the beams falling on the diaphragm with vertical slits, 3. A change from peak to peak in the phase difference between the sections of the waves cut off by the slits. It is shown that the first effect is insignificant. The effect of a change in beam inclination on the band shift at the peak is experimentally confirmed. These experiments also show that there is coherent interaction between beams traveling in different directions as well as between beams emitted by different sections at the end of the laser. In conclusion the authors thank V. P. Linnik for directing this work. Orig. art. has: 6 figures. [14]

SUB CODE: 20/

SUBM DATE: 18Feb65/

ORIG REF: 002/

OTH REF: - 007/

ATD PRESS: 5002

Card 2/2 BKG

St. ... K0, V., prepodavatel'

Practice on virgin soil. Prod.-tek. obr. 18 no.1:18 Ja '61.

(MI A 14:2)

1. Aposlennoye uchilichnoye posredniztsii sel'sko otdozhystva  
No.6, Sumskaya oblast'.

(Smyy Provinc --Farm Administration--Study and teaching)

SEMONENKO, V., master proizvodstvennogo obucheniya

Technical control in a group. Prof. tekhn. obr. 21 no. 11:21  
N '64 (MIRA 18:2)

1. Professional'no-tekhnicheskoye uchilishche No. 3, Klintsey.

SIMONENKO, V., kand. geograf. nauk, dotsent

Famous captain of the icebreaker fleet. Mor. flot 25 no.10:  
41-42 0 '65. (MIRA 18:11)

1. Luganskiy pedagogicheskiy institut imeni T.G. Shevchenko.



L 45386-63 EWT(1)/EWP(m)/EPA(s)-2/EPF(n)-2/ENG(v)/EMA(d)/EPR/FCS(k)/EWA(h)/EWA(G)  
 EWA(1) Pd-1/Pe-5/Ps-4/Pt-7/Pi-4/PU-4  
 UR/0040/65/029/002/0334/0336  
 63  
 ACCESSION NR: AP5010632

AUTHORS: Zababakhin, Ye. I. (Moscow); Simonenko, V. A. (Moscow)

TITLE: Converging shock wave in heat-conducting gas

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 2, 1965, 334-336

TOPIC TAGS: shock wave, heat conduction, radiation heat transfer, adiabatic flow, specific heat ratio, pressure distribution

ABSTRACT: The temperature distribution behind a converging shock wave was determined analytically. First, the case of a planar wave is considered, and in the usual gas dynamic conservation equations the following radiation energy term is included  $Q = -\frac{1c}{3} \frac{d}{dx} \left( \frac{4}{3} \sigma T^4 \right)$ . Solving these equations for the half width  $S$  of the heated region ahead of the shock, the following simple expression is obtained  $(\gamma = 1.4) S = 1.73 \cdot 10^{-3} \frac{L_0 \mu^4 D^2}{P_0 R^2}$ . For a converging wave  $D = A/r^\alpha$ ,  $\alpha = 0.395$ , and the resulting expression for the maximum temperature is given by  $T_{max} = \text{const } \rho_0^{0.265} R^{0.049} \mu^{-0.040} A^{0.673} (L_0)^{-0.265}$ . This shows that in the presence of thermal conduction (radiation) the shock wave temperature is finite but arbitrary,

Card 1/2

L 45386-65

ACCESSION NR: AP5010632

depending on the magnitude A. Orig. art. has: 10 equations and 2 figures.

ASSOCIATION: none

SUBMITTED: 19Oct64

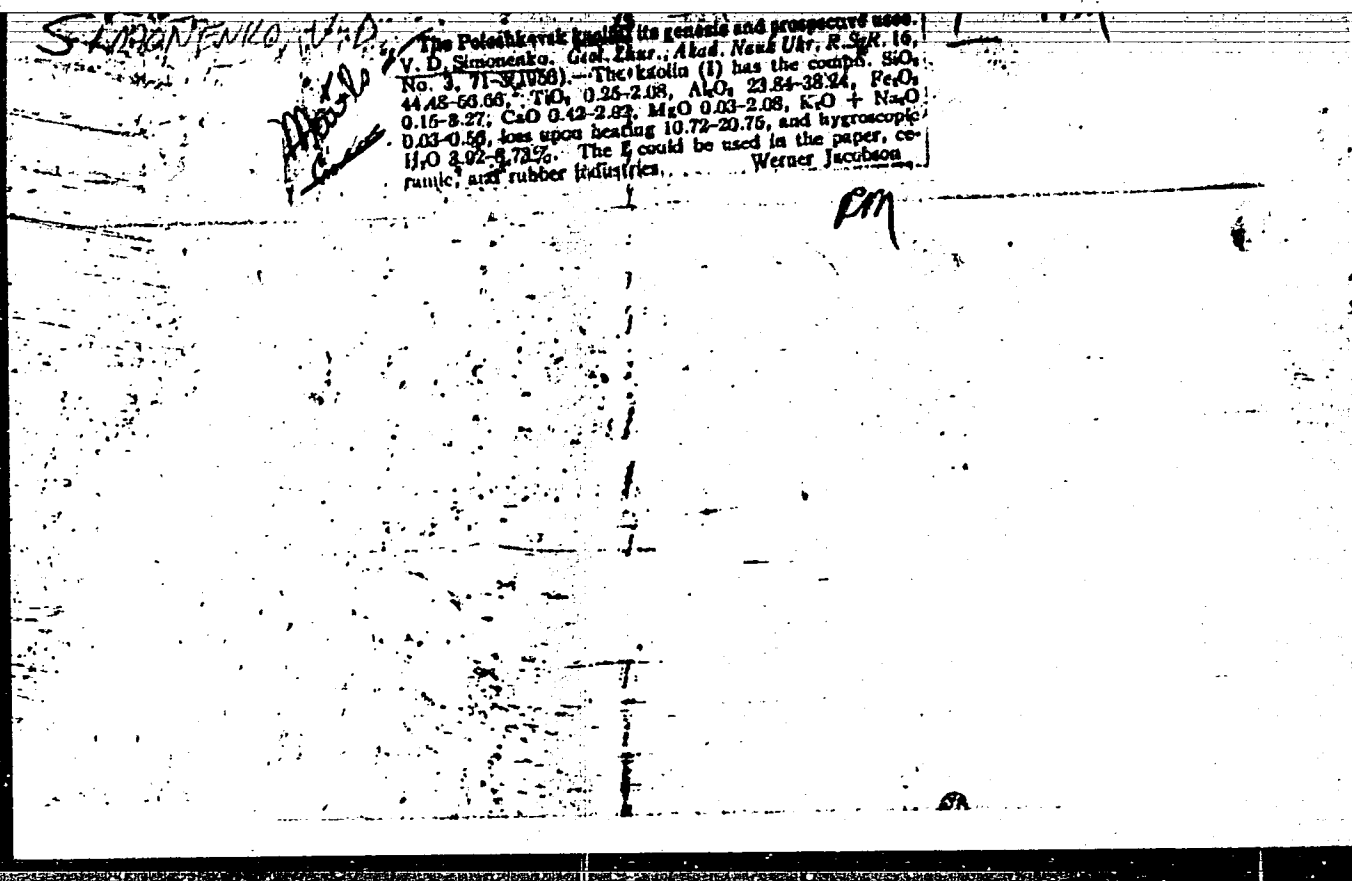
ENCL: 00

SUB CODE: ME

NO REF SOV: 002

OTHER: 001

*bjp*  
Card 2/2



TOPORKOV, I.D.; SIMONENKO, V.D. (Lugansk)

Calendar of noteworthy dates. Geog. v shkole 25 no.4:86-88  
Jl-Ag '62. (MIRA 15:8)

(Arsen'ev, Vladimir Klavalevich, 1872-1930)

(Voronin, Vladimir Ivanovich, 1890-1952)

(Sedov, Georgii Iakovlevich, 1877-1914)

KARPOV, A.K.; SIMONENKO, V.F.

Methods of studying the hydrogen sulfide content of natural gases.  
Gaz.prom. 5 no.6:11-13 Je '60. (MIRA 13:6)  
(Gas, Natural) (Hydrogen sulfide)

SIMONENKO, V.F., starshiy agronom

Practices in controlling whiteflies. Zashch. rast. ot vred. i  
bol. 6 no.12:33 D '61. (MIRA 16:5)

ALEXSIK, A.A.; SIMONENKO, V.F.

Specific gravity of formation waters as an indicator of hydrodynamic conditions in Paleozoic sediments in the southeastern part of the Russian Platform. Trudy VNIIGAZ no. 25:95-102 '65. (MIRA 18:12)

SIMONENKO, V. I.

Cand Phys-Math Sci - (diss' "Study on the theory of singular integrals, boundary problems of analytic functions, and singular integral equations." Tbilisi, Pub. Academy of Sciences Georgian SSR, 1961. 6 pp; (Academy of Sciences Georgian SSR, Tbilisi Mathematics Inst imeni A. M. Razmadze); 200 copies; free; bibliography on pp 5-6 (12 entries); (KL, 6-61 sup, 195)



SIMONENKO, V.K. [Symonenko, V.K.], student biolog.fakul'teta; VOROB'EV,  
A.I. [Vorobiov, A.I.], prof., nauchnyy rukovoditel';  
SAGAYDAK, I.M. [Sahaidak, I.M.], dots., nauchnyy rukovoditel'

Studies on intergeneric vegetative hybridization of tomatoes  
with the Bolgarskii 14 eggplant. Pratsi Od.un. Zbir.stud.rob.  
149 no.5:183-185 '59. (MIRA 13:4)

1. Odesskiy gosudarstvennyy universitet.  
(Tomatoes) (Eggplant)

Simonenko A. I.

Smelting acid-proof steel EYaIT in a thirty-ton electric furnace. Ya. P. Simonenko, A. Ya. Gol'dman, and Z. M. Ratner. *Sud 7*, 806 (02, 1947). Stainless steel was successfully produced in an arc furnace from a charge of either malleable Fe or malleable Fe + retracts from previous runs. For good results the proven charging schedule given in detail must be followed. The slag should contain Cr ore; the electrode tips, carefully spaced. The submitted procedure enables the use of a charge of 40-45% retracts; 95-98% of the Cr in the retracts was recovered in the alloy. M. Hosh

SIMONENKO, Ye.

Tugboat hook with semiautomatic recoil. Rech. transp. 19 no.10:  
43 0 '60. (MIRA 13:11)  
(Tugboats)

ALEKSEYEV, A.G.; SIMONENKOV, Ye.A.; CHICHERIN, Ye.G.

Knurling key gaps in toothed clutches. Mashinostroitel'  
no.12:27-28 D '63. (MIRA 17:1)

GOLOVNINA, M.V. [Holovnina, M.V.], prepodavatel'; CHERNITSKAYA, M.V. [Chernyts'ka, M.V.], prepodavatel'; RUDA, O.Ya., prepodavatel'; PANCHENKO, Z.P., prepodavatel'; OLEYNIKOVA, G.F. [Oleinykova, H.F.], prepodavatel'; VIRTEL', L.M., prepodavatel'; YAMPOL'SKAYA, A.M. [Iampol's'ka, A.M.], prepodavatel'; ALEKHNO, S.T., prepodavatel'; OKREPILOVA, E.P. [Okrepylova, IE.P.], prepodavatel'; SIMONENKO, Ye.M. [Symonenko, E.M.], prepodavatel'; TSIGEL'MAN, F.M., prepodavatel'; SHCHEPELYAYEVA, O.P. [Shchepeliaieva, O.P.], prepodavatel'; ZAIKA, N.P., prepodavatel'; BARSUKOVA, M.M., prepodavatel'; IZAROVA, N.O., prepodavatel'; IVCHENKO, T.P., prepodavatel'; NEKRASOVA, K.S., prepodavatel'; ALEKSEYEVA, P.O. [Aleksieieva, P.O.], prepodavatel'; GAVRILOVA, G. [Havrylova, H.], red.; GORKAVENKO, L. [Horkavenko, L.], tekhn.red.

[Dressmaking] Krii ta shyttia. Vyd.6, perer. i dop. Kyiv, Derzh.vyd-vo tekhn.lit-ry URSR, 1960. 692 p.

(MIRA 14:2)

(Dressmaking--Pattern design) (Sewing)

SIMONENKO, Z.A.

Characteristics of the functional state of the uterus in parturients with premature bursting of waters. Akush. i gin. 39 no.3: 92-96 My-Je'63 (MIRA 17:2)

1. Iz kafedry akusherstva i ginekologii ( rukovoditel' - prof. A.G. Butylin) Kurskogo meditsinskogo instituta.

SIMONAKO, Z.A.

Study of the functional activity of the uterus in parturients in premature bursting of waters by the method of two-channel external myotography. Sbor. trud. Kursk. gos. med. inst. no.16:281-286 (MIRA 17:9)

1. Iz kliniki akusherstva i ginekologii (nat. - prof. A.G. Davylin) Kurskogo meditsinskogo instituta.

L. 00738-67 EWT(d)/T/EWP(1) LJP(c) BB/GG  
ACC NR: AP6005387 SOURCE CODE: UR/0413/66/000/001/0135/0135

50  
B

AUTHOR: Simonenkov, V. I.

ORG: none

TITLE: A system of program control with correction of the program. Class 49,  
No. 177762

SOURCE: Izobreneniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 135

TOPIC TAGS: computer programming, ~~automatic control system~~, milling machine, programmed automatic control

ABSTRACT: This Author Certificate presents a system for a program control and for correcting the analog type program of a milling machines. The information is recorded on a magnetic tape and is based on the method of phase modulation. This system makes it possible to enter a correction into the program in the course of working the parts (if the cutter diameter does not correspond to the design value). The correction is accomplished by using a supplementary track with the correction information for each independent coordinate. The correction information is entered into the program information in the phase accumulator by the cumulative-differential phase bridges. This method allows conducting the summation of the information with a phase difference reaching 180° and insures a minimum of parasitic amplitude modulation. For correction information it is possible to use the coordinate information calculated for a cutter diameter smaller than the rated diameter

UDC: 621.914.3-503.55

Card 1/2



L 00738-57  
ACC NR: AP6005387

under the condition that the maximum phase difference between the correction information and the program information should not exceed  $180^\circ$ . The fine adjustment regulator serves to change the dimensions of the part being processed without changing the program (in the conversion of a  $180^\circ$  phase shift of the program).

SUB CODE: 09, 13/

SUBM DATE: 25Jun63

Card 2/2 *IC*

SHEVCHENKO, N.A.; RETIVYKH, Yu.I.; SIMONENKOV, Ye.A.

Milling slots with high-pressure cooling. Stan. 1 Instr. 35  
no.10;28-29 0 '64. (MIRA 17-12)

GOLYNETS, Yu.F.; PONOMAREVA, L.I.; Primali uchastiye: SIMETSKAYA, N.A.;  
SIMONENKOVA, R.A.

Estimating the reproducibility of the results of analyses  
of sulfur-containing substances. Trudy Kom.anal.khim. 13:  
137-138 '63. (MIRA 16:5)  
(Sulfur—Analysis) (Sulfur organic compounds)

*C-2 Organic, this report*

*Ex. ab.*

318. (Determination of) the auto-oxidation capacity of Benzoin  
 (vegetable) oil. G. V. Alexa and C. Simionescu (*Bul. Inst. Nat.  
 Res. Tec. Romania*, 1947, 8, 81-87).—The method is based on that  
 of Machey (*J. Soc. chem. Ind., Lond.*, 1929, 1A, 9); the apparatus  
 comprises a double-walled Cu cylindrical water-jacket, the inside of  
 which forms the oxidation chamber. The cylinder is provided with a  
 lid holding a thermometer and air inlet and outlet tubes, and an  
 internal 110-mm H<sub>2</sub>-glass cylinder resting on a brass cone, this  
 cylinder being coated with cotton, asbestos, wool, or cellulose  
 acetate wool washed in the oil to be tested. The water-jacket is  
 heated to 100° and the temp. rise inside the apparatus is noted  
 at intervals. Using the same glass and coating, the oils can be  
 checked according to their total oxidation index,  $T = 100t/D_{100}$

and the internal index,  $I = 100(t_{100} - 100)/(D_{100} - D_{100})$ , where  
 $t_{100}$  is the max. temp. reached,  $D_{100}$  the time taken to reach  $t_{100}$   
 and  $D_{100}$  the time taken to reach 100°. D. R. Fuchs.

S. MIHNEȘCU, C.

Oil from seeds of *Cuscuta europea*. Cristofor Simionescu and Margareta Ciugoraș. *Acad. rep. populare Române, Filiala Iași. Studii cercetări științ.* 3, 157-61(1952).—The vaporization of *C. europea* (I) for the production of vegetable oil was studied. The physicochem. characteristics and the component fatty acids of the glycerides of I were detd.  
Emanuel Merdinger

Med. 3

SIMIONESCU, CRISTOFOR

✓ Production and industrial use of plant proteins. IV. Proteocellulose fibers. Cristofor Simionescu, Elena Calistru, Vasile Diaconescu, Dorel Feldman, and Ioan Oprea. *Acad. rep. populare Române, Filiala Iasi, Studii cercetări științ.* 3, 162-90(1952); cf. *C.A.* 49, 8526c. — From an alk. soln. of plant protein and viscose, proteocellulose fibers were prepd. They appear to result from very complicated reactions. Their quality depends on the conditions of ripening of the proteins and viscose. The optimum appears to be 24-48 hrs.; beyond this time the percentage of incorporated N is lower and the quality of the fiber inferior. N can be introduced by org. solvents, but this increases the cost of production. The dyeing properties of the fiber, comparable to those of wool; are due to (1) adsorption resulting from the polarity of the colloid, and (2) chem. reaction between the active groups of fibers and dye. The microscopic structures of the fibers are similar to those of animal fibers. The new fiber is 46% stronger than viscose fibers; the wet strength is higher than that of pure cellulose fiber. Treated with  $CH_2O$  the fibers maintain their elasticity, while their strength and elongation increase. Cf. *C.A.* 50, 14265c. Emanuel Merdinger

Matta 5

Rumania/Chemical Technology - Chemical Products and Their Application. Synthetic  
Polymers. Plastics, I-

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 63131

Author: Simionescu, Cristofor; Grigoras, Marg.; Popa, Eugen; Stejaru, Grigore

Institution: None

Title: Industrial Utilization of Vegetable Proteins for the Production of  
Plastics. Communication VI

Original  
Periodical: Consideratiuni asupra obtinerii si industrializarii proteinelor  
vegetale mase plastice (Comunicarea VI). Studii si cercetari  
stiint. Acad. RPR fel Las1, 1953, 4, No 1-4, 245-256; Rumanian;  
Russian and French resumés

Abstract: On condensation of vegetable protein (for example from sunflower or  
pumpkin waste) in strongly acid medium with formalin or in a weakly  
acid or weakly alkaline medium with furfural a condensation product  
is obtained from which a plastic is produced by mixing with plasti-  
cizers (glycerol, tricresyl phosphate, dibutyl phthalate, Na-butyrates)

Card 1/2

Rumania/Chemical Technology - Chemical Products and Their Application. Synthetic  
Polymers. Plastics, I-

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 63131

Abstract: etc) and filler (glass powder, graphite, carborundum, etc). Fabrica-  
tion of articles from these plastics is effected at 90-120<sup>o</sup> and pres-  
sure of 700-800 kG/cm<sup>2</sup> (for 10-60 minutes). The articles thus ob-  
tained have satisfactory electric insulating properties.

Card 2/2



SIMIONESCU, CRISTOFOR

*Matt's*

✓ The effect of ultraviolet light on cellulose. Cristofor  
 Simionescu and Emanoil Poppel. *Acad. rep. populare*  
~~romana, Filiala Iasi, Anul cercetari stin.~~ 4, No. 1/4, 257-63  
 (1953).—The effect of ultraviolet light on cellulose K.S.  
 and on a filter paper was studied. Various tests of the  
 inhibition with antioxidants (I) in alc. solns. did not show  
 modifications which could be reflected upon its Cu no. or the  
 α-cellulose content of the samples. I did not evidence an  
 independent photochem. reaction, in presence of O, or a  
 classical oxidation process, such as the O<sub>2</sub> effect on cellulose  
 resulting in oxycellulose. The effect of O on modified  
 glucosidic links decrease its polymerization rate or increases  
 the Cu no. The practical results consist in the use of I in  
 documents or papers for special use and in the cellulose-  
 textile industry. T. Z. Dănesy

*PM 208*

mass

SIMIONESCU, S.; CALISTRU, D.; OPREA, I. .

"Consideration of the way to obtain and industrialize vegetable proteins;  
Factors which affect the viscosity of proteide solutions". p. 133.

"Journal on science issued by the Iasi Branch, Rumanian Academy; with French and  
Russian summaries. Quarterly". (STUDII SI CERCETARI STIINTE). VOL. 5, no.  
1/2, Jan./June 1954. (Iliana Iasi.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol.4, No. 5, May  
1955, Uncl.

SIMIONESCU, I.; CALISTRU, E.; FELDMAN, D.

"Consideration of the way to obtain and industrialize vegetable proteins; union exchange of resins". p. 151. "Journal on science issued by the Iasi Branch, R Rumanian Academy; with French and Russian summaries. Quarterly". (STUDIUL SI CELEBRTARI STIINTIFICE, Vol. 5, no. 1/2, Jan./June 1954. \* Filiala Iasi.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol.4, No. 5, May 1965, Uncl.

SIMIONESCU, CRISTOFOR

**RUM .**

The study and uses of vegetable proteins. II. Cristofor Simionescu, Vasile Diaconescu, Elena Calistru, Dorel Feldman, Margareta Grigoras, and Ioan Oprea (Zassy Polytech. Inst., Rumania). *Rev. chim. (Bucharest)* 6, No. 1, 7-18(1965).—A discussion on the applicability of such by-products as mill cakes, slaughterhouse blood, and liming waters in the paper, fiber, plastics, and glue industries. Gerard Aufleger

SIMIONESCU, Cristofor

**M** Factors influencing the permanence of paper. Cristofor Simionescu, Emanoil Poppel, and Nikolai Asandei (Polytech. Inst. Jassy, Moldavia, Romania). *Eumash. Prom.* 30, No. 11, 5-10(1955).—The influence of additives (size and fillers) on the aging of paper was studied. A bleached sulfite was sized with various materials and artificially aged under a quartz lamp (330-750 m $\mu$ ) at 25° and 65% relative humidity. At 0 hrs. irradiation, paper sized with 2.8% Bewoid rosin size and 2.8, 5.0, and 8.0% chlorinated paraffin had a breaking length of 5344, 4918, 4160, and 5080 m.; double folds of 44, 57, 98, and 192; brightness of 45, 44, 43, and 44; and pH values of 5.2, 6.4, 6.5, and 6.5; after 10 hrs. irradiation the breaking length was 4720, 4020, 3297, and 3960; double folds 13, 15, 6, and 20; brightness 39, 35, 35, and 35; and pH 4.8, 5.8, 5.6, and 5.8; after 20 hrs. aging the breaking length was 4320, 3530, 3189, and 3730; double folds 5, 4, 5, and 11; brightness 36, 33, 33, and 34; and pH values 4.6, 5.5, 5.4, and 5.4. Map paper (50% bleached sulfite, 50% rag stock) was sized with 2.8% rosin and 2.8% melamine resin and irradiated. After 0, 10, and 20 hrs. aging the rosin-treated paper had a breaking length of 3438, 3388, and 8140 m.; double folds of 141, 69, and 34; brightness of 56, 50, and 46; and pH values of 5.0, —, and 4.2; comparable values for the melamine-treated samples were 6608, 6800, and 6665; 832, 108, and 97; 49, 48, and 45; and 4.4, —, and 4.35. Bleached sulfite (45° Schopper-Riegler) sized with 0, 2.5, and 5.0% rosin size, after 0 aging gave a breaking length of 4572/5010, and 4694 m.; double folds of 293, 385, and 317; brightness of 46, 45, and 47; and pH values of 7.2, 6.5, and 6.4; corresponding values after 10 hrs. aging were 4170, 4300, and 3980; 74, 58, and 71; 41, 41, and 42; and 6.8, 6.0, and 5.9; and after 20 hrs. were 3800, 3544, and 3640; 12, 8, and 16; 40, 41, and 41; and 6.5, 5.9, and 5.8, resp. Aging was less severe when the paper was sized in alk. medium, and the pH drop was less, compared with sizing in acid medium (pH 4.5-5.5). The addn. of fillers (4.5-7.5% clay pickup) did not have an appreciable influence on the aging of paper sized in alk. or acid medium. The addn. of rag stock to a sulfite furnish resulted in less severe aging.  
John Lake Keays

(2)

✓ The fractionation of cellulose with sulfuric acid. Christofor Simionescu and Elena Calistru (Polytech. Hochschule Romania). *Faserforsch. u. Textiltech.* 7, 171-5(1956).

— Cotton, rayon, and other wood celluloses are pretreated 0.5 hr. with 50% H<sub>2</sub>SO<sub>4</sub> at room temp., then at -20° are added to sufficient 72% H<sub>2</sub>SO<sub>4</sub> to bring its concn. to 60-3% (e.g., when 43 cc. 50% H<sub>2</sub>SO<sub>4</sub> is used the mixt. is made up to 100 cc. by dropwise addn. of 72% H<sub>2</sub>SO<sub>4</sub> at -20°), the mixt. is kept with occasional shaking 0.5-1 hr. at -20° in a refrigerator, the concn. of the H<sub>2</sub>SO<sub>4</sub> in the filtered soln. is detd., and the soln. divided into 4 portions and dild. with H<sub>2</sub>O to H<sub>2</sub>SO<sub>4</sub> concns. of 15, 30, 35, and 40%. The pptd. cellulose fractions are filtered off and the cellulose content of the original soln., in the ppts., and in the filtrates is detd. according to a modification of the Bray-Andrews method (C.A. 17, 1714). The results are given in several tables. Of the cotton (in 60.5% H<sub>2</sub>SO<sub>4</sub>) 0.38, 3.82, and 8.5%, resp., is dissolved; of the filter paper (in 62.32% H<sub>2</sub>SO<sub>4</sub>) 0.6, 1.61, and 3.47%; of rayon pulp (in 61.5% H<sub>2</sub>SO<sub>4</sub>) 4.57-7.09, 6.05-7.80, and 9.4-14.95%; and of 2 wood celluloses for paper (in 62.5% H<sub>2</sub>SO<sub>4</sub>), 8.32 and 2.89, 9.20 and 11.63, and 10.99 and 13.4%, resp. The disadvantage of the method is that only 3 fractions are obtained because of difficulties in the filtration of the ppt. at acid concns. of over 45% and of the necessity for such low temps. in order to prevent a degradation of the cellulose. F. E. Brauns

*Chem*

5  
2 M.A. YOUTZ  
3 cc p: cs

*PM*

Country : Rumania H-32  
Category :  
Doc. Jour. : 48064  
Author : Calistru, E.; Simionescu, N. < Simionescu, C.  
Instit. : Rumanian Academy  
Title : Some Factors affecting Viscose Stability  
Orig. Pub. : Studii si cercetari stiint. Acad. RPR Fil. Ia  
si Chim., 1950 (1957), 7, No 2, 149-190  
Abstract : Study of kinetics of viscose ripening at  
elevated temperature and on action of different additives.  
Results were evaluated on the basis of changes in ripeness,  
viscosity, and degree of esterification. It was found that  
addition of vulcacite T, as well as of sodium sulfide and  
urea, retards ripening of viscose; at the same time no  
changes are observed in the physico-chemical indices of the  
fiber obtained, which is confirmed by experiments at the  
"Filatura Lupen" factory. Antioxidants do not interfere  
with colloidal-chemical ripening Cystin and acetamide are  
accelerators of the process of ripening of viscose solution.  
Card: 1/2

DOC. NO. : RUMANIA 8-55  
CATALOG : :

ABST. JOUR. : RUMANIA, No. 15 1959, No. 5981

AUTHORS : Simionescu, C. and Calistru, S.  
TITLE : In the Fractionation of Cellulose from H<sub>2</sub>O  
Solvent. Communication III.

DATE, PUB. : Rev. Univ. (Rumania), 2, No 2, 221-230 (1957)

ABSTRACT : The authors present experimental data on the utilization of H<sub>2</sub>SO<sub>4</sub>, H<sub>2</sub>PO<sub>4</sub>, and mixtures of these acids in the fractionation of cellulose (C) with reprecipitation with water and describe the experimental procedures used. The precipitation of C from 70-97% H<sub>2</sub>PO<sub>4</sub> by the addition of water until a 10-50% H<sub>2</sub>PO<sub>4</sub> solution is obtained gives a lower microviscous fraction content in the cellulose (MC) than precipitation of the C from 61.6-66.5% H<sub>2</sub>SO<sub>4</sub>. Thus H<sub>2</sub>PO<sub>4</sub> when used as a solvent lowers

CARD: 1/3



COUNTRY : Rumania H-55  
CATEGORY :  
ABS. JOUR. : REXHAU, No. 15 1959, No. 59371  
TITLE :  
ORIG. PUB. :  
SUMMARY : The recovery of MC, which are of greatest interest in the production of artificial fibers. When H<sub>2</sub>SO<sub>4</sub> is used, the MC are more accurately determined. The authors note the desirability of using this method [H<sub>2</sub>SO<sub>4</sub> ?] in the comparison of a series of C with celluloses produced abroad. The authors have shown that the behavior of C during chemical processing is determined by the presence of MC in 20, 30, 40, and 50% solutions of H<sub>2</sub>SO<sub>4</sub> and H<sub>2</sub>O, and by the average degree of polymeriza-

CARD: 2/5

292

RUMANIA / Chemical Technology, Chemical Products and Their  
Application. Chemical Wood Products. Hydrolysis  
Industry.

H-24

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 17067

Author : Simionescu, C.; Feldman, D.

Inst : Not given

Title : Investigation of the Primary Hydrolysis of Reed. Part I

Orig Pub : Bul. Inst. politehn. Iasi, 1957, 3, No 1-2, 91-100

Abstract : Experiments pertaining to the primary hydrolysis of hemicellulose, that follows hydrolysis of cellulose, were conducted. A stem portion between the knots of reed was used as raw material. Hydrolysis was performed under laboratory conditions with water, having ratios varied in the following limits: 1:2; 1:5; 1:10; 1:7.5; 1:4; 1:2, and pressure from 5 to 9 atm, while the time of process was held constant. The hydrolyzed material yield

Card 1/2

SIMIONESCU, K. [Simionescu, Christopher] (Rumynskaya Narodnaya Respublika);  
KALISTRU, K. [Calistru, Constantin] (Rumynskaya Narodnaya Respublika).

Scientific cooperation of Russian and Rumanian chemists. Vop. 1st.  
est. i tekhn. no. 4:172-178 '57. (MIRA 11:1)

1. Chlen-korrespondent AN Rumynskoy Narodnoy Respubliki (for  
Simionescu).

(Russia--Relations (General) with Rumania)  
(Rumania--Relations (General) with Russia)

SIMIONESCU Ch.

RUMANIA/Chemical Technology. Chemical Products and Their  
Applications. Cellulose and Cellulose Products.  
Paper.

K-5

Abs Jour: Ref Zhur-Khimiya, 1958, No 1, 3283

Author : Simionescu, Feldman, Grigoras

Inst :

Title : Lignin Determination in Reed by Klason's Method Modified  
by F. P. Komarov

Orig Pub: Celulosa si hirte, 1957, 6, No 2, 51-53

Abstract: It was established that the Klason-Komarov method  
was applicable to lignin determination in reed pro-  
vided that certain modifications proposed by the  
author be introduced.

Card : 1/1

SIMIONESCU, C.

"Some current problems of macromolecular chemistry discussed at the 9th Conference on Physics and Chemistry of Macromolecular Combinations, held in Moscow in 1957."

p. 376 (Celuloza Si Hirtie) Vol. 6, no. 11, Nov. 1957  
Bucharest, Rumania

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

SIMIONESCU, C. ; CALISTRU, C.

Life and works of Petru Poni. p. 12.

STUDII SI CERCETARI STIINTIFICE. CHIME. Iasi, Rumania  
Vol. 8, No. 1, 1957.

Monthly List of East European Accession (EEAI). IC, Vol. 8, No. 9, Sept. 1959  
Uncl.

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 22002

Author : Asandei, N., Vasiliu, Gh., Simionescu, Cr.

Inst : Rumanian Academy, Iasi Branch.

Title : The Radioactivity of Thorium and Uranium  
Compounds of Carboxymethylcellulose.

Orig Pub : Studii si cercetari stiint. Acad. RFR Fil.  
Iasi. Chim., 1957, 8, No 1, 201-210

Abstract : For investigating the structure of cellulose and its derivatives, a method was developed for determining the degree of replacement of celluloseglycol acid by means of the utilization of the natural radioactive properties of thorium and uranium compounds of carboxymethylcellulose. Also, an

Card : 1/2

RUMANIA High Molecular Chemistry

Obtaining cellulose in high yield. V. Diaconescu, Emanuel Poppel, Gh. Nichitus, Erna Weiss, Elena Calistru, Dorel Feldman, C. Patase, N. Asandei, Gh. Rozmaran, and Cristofor Simionescu. Bul. inst. politeh, Iasi (N.S.) 4, 213-26(1958).--High yields of cellulose (up to 65%) are obtained by digesting 6000 kg. wood with NaOH (570 kg.), and 70 kg. Na<sub>2</sub>S, so that the total alky. is 13.2% (on the wood basis). The so-called active alky. is 11.67%. The digestion required 2 hours and 10 min. at max. pressure, maintaining this for another 10 min., degassing for 5 min., and then washing for 6 hrs. The pulp contained 77.5% cellulose, 14.86% lignin, 6.30% pentosans, and 70.69%  $\alpha$ -cellulose.  
Mella Paecht-Horowitz



COUNTRY : Rumania 8-33  
 CATEGORY :  
 Abs. Jour. : RZKhim., No. 21 1958, No. 77002  
 Author : Simionescu, Cr. and Popuel, E.  
 Inst : Inst Politehnic Institute  
 Title : Methods Used in the Determination of the Degree of Sizing of Paper  
 Orig. Pub. : Bul Inst Politehnic Iasi, 4, No 1-2, 227-236 (1958)  
 Abstract : The results obtained from the determination of the degree of sizing of unpressed and pressed papers sized with Bavard size by the mark method, Yayne method, and by the electrolytic method (EM) are compared. In the EM the region of capillary penetration by the solution and the region of penetration into the intermicellar space [sic] were studied. A modified EM has been found to be suitable for the evaluation of the quality of papers which do not differ markedly in degree of sizing. A diagram of the apparatus is given.  
 From authors' summary  
 PAGES: 1/1

RUMANIA/Wood Chemical Production. Hydrolysis Industry.

H.

Abs Jour : Ref Zhur - Khimiya, No 19, 1958, 65652

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550710011-0"

Author : Simionescu, Cr., Calistru, E., Feldman, D., Simionescu, N.  
 Inst :  
 Title : Determination of Lignin in Reed by the Kyurshner and Shveytspakherovaya Method.  
 Orig Pub : Celuloza si hirtie, 1958, 7, No 2, 71-72.  
 Abstract : On the basis of an experimental comparison with the Klason-Komarov method, a conclusion has been made concerning the possibility of the utilization of the Kyurshner-Shveytspakherovaya method for the determination of lignin in reed.  
 See RZhKhim, 1955, 19089, 29285.

Card 1/1

19

1)  
 Author : Simionescu, Cr., Calistru, E., Feldman, D., Simionescu, N.  
 Inst :  
 Title : Cellulose from Reed, Its Chemical Processing and the Production Therefrom of Synthetic Fibers of a Viscose Silk Type.  
 Orig Pub : Celuloza si hirtie, 1958, 7, No 5, 171-177.

COUNTRY : ROMANIA  
DEPARTMENT : Chemical Technology, Chemical Products and  
Their Applications, Cellulose and Its  
APP. JOUR. : RZKhim., No. 23 1959, No. 24325  
AUTHOR : Simonescu, C.; Calistru, E.  
INST. :  
TITLE : Viscose Cellulose Derived from Reed

ORIG. Pgs. : Celul. si hirtie, 1959, 8, No 4, 111-117

ABSTRACT : Based on the investigation of morphological structure and on uniqueness in the degree of polymerization of macromolecules of the reed viscose cellulose (VC), the conclusion was made that the reed VC quality is not inferior to VC derived from wood pulp. The morphological structure was investigated by the K. Heide method, employing 80% H<sub>3</sub>PO<sub>4</sub> for the wood VC and 83% H<sub>3</sub>PO<sub>4</sub> for the reed VC, as well as with 60% H<sub>3</sub>PO<sub>3</sub>. The degree of polymeriza-

\*Derivatives. Paper.

CARD: 1/2

H - 142

COUNTRY :  
CARTON :  
ABS. JOUR. : ZHURN., No. 23 1953, No. 24325  
AUTHOR :  
REF. :  
TITLE :  
ORIG. PUB. :  
ABSTRACT : zation was determined from solubilities in  
Cond  $H_2PO_4$  and by a special fractionation method  
of the solutions, employing the precipitation  
with  $H_2SO_4$  at low temperatures, that insures  
a possibility of finding criteria for the clas-  
sification of celluloses depending on the fra-  
ctions entering solution and on the initial  
acidity of the medium.  
CARD: 2/2

SIMIONESCU, Cristofor; FELDMAN, Dorel

Study of the prehydrolysis of reed grass. Note III. Studii chimie  
Iasi 10 no.1:79-88 '59. (KEAI 9:5)

1. Filiala Iasi a Academiei Republicii Populare Romine.  
(Grasses) (Hydrolysis)

SIMIONESCU, Cr., prof; CALISTRU, Elena; SIMIONESCU, Natalia

Studies on the lignin extracted from a beech tumor. Studii chimie Iasi  
10 no.2:303-309 '59. (EAI 10:1)

1. Redactor responsabil adjunct, Studii si cercetari stiintifice,  
Chimie. Membru correspondent al Academiei Republicii Populare  
Romine (for Simionescu, Cr.)  
(Beech) (Lignin)

SIMIONESCU, Cristofor, prof.; DIACONESCU, Eleonora; FELDMAN, Dorel

Contributions to the knowledge of the chemical composition of reed.

I. Esters of glycerin and higher alcohols. Studii chimie Iasi 10  
no.2:311-321 '59. (EEAI 10:1)

1. Redactor responsabil adjunct, Studii si cercetari stiintifice,  
Chimie, Membru correspondent al Academiei Republicii Populare  
Romine (for Simionescu)

(Grasses) (Glycerol) (Esters) (Alcohols)

SIMIONESCU, Cristofor, prof; GRIGORAS, Margareta

On the variation of the main chemical components of some species of Rumanian trees. Studii chimie Iasi 10 no.2:323-337 '59. (EEAI 10:1)

1. Academia Republicii Populare Romine, Filiala Iasi; Insitutul de Chimie "Petru Poni." 2. Membru corespondent al Academiei Republicii Populare Romine (for Simionescu)  
(Rumania--Trees) (Cellulose) (Lignin)

COUNTRY:	: Czechoslovakia	H-33
CATEGORY:	:	
RES. JOUR.	: ZKHM, No. 22 1959 No.	20534
AUTHOR:	: Gligorescu, G. and Galistro, E.	
TITLE:	: Cellulose	
ORIG. INFO:	: Papir a Celul, 17, No 3, 32-36 (1959)	
ABSTRACT:	: The authors have investigated the morphological and molecular structure of cellulose (C) from Phragmites communis. It is shown that type C is in all respects equal to type E. The molecular polydispersities (an important characteristic in the production of viscose C) is better in case C than in case E.	
		For authors' summary

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SIMIONESKU, Kristofor Z. [Simionescu, C.], prof.

Paper made of reeds. Nauka i zhizn' 26 no.9:33-34 S '59.  
(MIRA 13:1)

1.Chlen-korrespondent Rumynskoy AN, rektor i ~~na~~veduyushchiy kafedroy  
tsellyulozy, bumagi i iskusstvennogo prirodnykh makromolekul Yasskogo  
filiala AN.

(Rumania--Paper industry) (Reed (Botany))

SIMIONESCU, Cristofor; DIACONESCU, Eleonora; FELDMAN, Dorel

Contribution to the study of the chemical composition of reed. I.  
Esters of glycerin and higher alcohols. Rev chimie 5 no.1:57-65 '60.

(EEAI 10:2)

1. Section de Chimie Macromoleculaire de l'Institut de Chimie "P.Poni"  
de l'Academie de la Republique Populaire Roumaine, Jassy. 2.

Academie de la Republique Populaire Roumaine, Membre correspondant de

l'Academie de la Republique Populaire Roumaine, Comite de redaction,

Revue de chimie (for Simionescu)

(Grasses) (Esters) (Alcohols) (Glycerol)

SIMIONESCU, Cristofor, prof.; ASANDEI-CERNATESCU, Agata

On the chemical composition of some lignecus species of Rumania  
(Pinus montana and Juniperus communis) Studii chim Iasi 11 no.1:  
87-96 '60. (EEAI 10:3)

1. Membru corespondent al Academiei R.P.R., Comitetul de redactie,  
Studii si cercetari stintifice, Filiala Iasi, redactor resp.  
adjunct (for Simionescu)  
(Rumania--Pinus montana) (Rumania--Juniper)

SIMIONESCU, K. [Simionescu, C.]; KALISTRU, E. [Calistru, E.]; Simionescu,  
Nataliya [Simionescu, Natalia]

Study of some chemical changes during the development of the  
tumors caused by Bacterium tumefaciens. Rev chimie 6 no.2:  
235-243 '61.

1.Otdeleniye prirodnykh makromolekul Khimicheskogo instituta  
"Petru Poni", Yaskiy filial Akademii RNR 2. ~~Chlen~~-correspondent  
Akademii RNR. Membre du Comité de rédaction, "Revue de chimie"  
(for C. Simionescu)

SIMIONESCU, Cr., prof.dr.ing.; CALISTRU, E., ing., candidat in Stiinte  
Tehnice.

Comparative study on the chemical pulps from Arundo-donax  
and Phragmites communis. Cel hirtie 10 no.7/8:268-276  
Jl-Ag '61.

1. Membru Corespondent al Academiei R.P.R. (for Simionescu).

POPPEL, E., ing.; DIACONESCU, V., prof.ing.; SIMIONESCU, Cr., prof.dr.ing.

Chemical, technological, and energetic research in the field  
of high efficiency sulfate pulps. Gel hirtie 10 no.9:322-328  
S'61.

1. Membru corespondent al Academiei R.P.R. (for Simionescu).

SIMIONESCU, Cr., prof.dr.ing.

Present problems of cellulose chemistry and technology. Cel  
hirie 10 no.10:337-341 0'61

1. Membru Corespondent al Academiei R.P.R.

SIMIONESCU, Cr., prof.dr. ing.; CALISTHU, E., candidat in Stiinte Tehnice;  
MIHAILESCU, S., ing.

Chemical cellulose obtained from reed (*Phragmites communis*)  
grown in the Danube Delta. Cel hirtie 10 no.10:341-350 0'61

1. Membru Corespondent al Academiei R.P.R. (for Simionescu).



GRIGORAS, M., ing.; ASANDEI-CERNATESCU, A., ing.; SIMIONESCU, Cr., prof.dr.  
ing.

Some observations on the main components of century-old trees.  
Cel hirtie 10 no.10:355-360 0'61

1. Membru Corespondent al Academiei R.P.R. (for Simionescu).

SIMIONESCU, Cr., prof. dr. ing.; POPPEL, E., ing.; ROZMARIN, Gh., ing.

Aspects of the photochemical and thermal degradation of some pulps and paper products. *Cel hirtie* 10 no. 11: 228-403 N° 61

1. Membru Corespondent al Academiei R.P.R. (for Simionescu).

SIMIONESCU, Cristofor, prof.; CALISTRU, Elena

Studies on the chemical transformations during the development of the tumors produced by *Bacterium tumefaciens*. II. Chromatographic study of sugars. *Studii chim Iasi* 12 no.2:227-232 '61.

1. Institutul de chimie "P.Poni," Sectia de chimie macromoleculara.
2. Membru corespondent al Academiei R.P.R., Membru al Comitetului de redactie si Redactor responsabil adjunct, "Studii si cercetari stiintifice, Chimie" (for Simionescu).

SIMIONESCU, Cristofor, prof.; SIMIONESCU, Natalia

Chemical transformations in a tumor of *Prunus cerasifera* var. mirabolana. *Studii chim Iasi* 12 no.2:233-239 '61.

1. Institutul de chimie "Petru Poni" al Academiei R.P.R., Filiala Iasi, Sectia de chimie macromoleculara. 2. Membru al Comitetului de redactie si Redactor responsabil adjunct, "Studii si cercetari stiintifice, Chimie" (for Cristofor Simionescu).

SIMIONESCU, Cristofor, prof.; CALISTRU, Elena; SIMIONESCU, Natalia;  
HRIHOROV, Marta

Action of antioxidants on the process of tumor growth in  
vegetables. Studii chim Iasi 12 no.2:241-249 '61.

1. Filia Iasi a Academiei R.P.R., Institutul de chimie  
"P.Poni," Sectia de chimie macromoleculara. 2. Membru  
corespondent al Academiei R.P.R., Membru al Comitetului de  
redactie si Redactor responsabil adjunct, "Studii si  
cercetari stiintifice, Chimie" (for Cristofor Simionescu).

15-8010

Z7004

R/003/61/012/009/003/006  
D019/D105

AUTHORS: Simionescu, Cr., Professor, Corresponding Member of the Rumanian Academy, Feldman, D., Instructor, and Vasiliu, Cleopatra, Assistant

TITLE: Cellulose and graft cellulose derivatives

PERIODICAL: Revista de Chimie, v. 12, no. 9, 1961, 525 - 538

TEXT: Based on a great number of Eastern and Western publications, the article presents a comprehensive description of the synthesis and properties of graft copolymers. The authors studied copolymers based on (1) chain transfer; (2) formation of reactive groups in the primary chain and (3) formation of active centers in the primary chain. The first method is based on the solution of the  $(A)_n$  polymer in a suitable solvent, in which the polymerization of the B monomer is conducted. The basis of the second method is the presence in the chain of the primary polymer of a reactive functional group capable of initiating the polymerization of any monomer. Primary chains with macroradical characteristics may also be produced by mechanical destruction, supersonic vibration, electric discharges,  $\gamma$ -radiations, etc. With regard to these methods, the authors refer to

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some Western, and the following Soviet-bloc publications: A. Chapiro (Ref 5: Mezhdunarodnyy simpozium po makromolekulyarnoy khimii [International symposium on macromolecular chemistry], Moscow, 1960, section III-a, 156 - 163); A.A. Berlin, A.G. Kronman, D.M. Yanovskiy, and V.A. Kargin (Ref 31: Vysokomolekulyarnyye soyedineniya, nr. 12, 1960, 1839 - 1844); H.U. Usmanov (Ref 4: Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, Moscow, 1960, Section III-a, 344 - 348); H.U. Usmanov (Ref 6: Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, Moscow, 1960, Section III, 170 - 175); I.P. Losev and E.B. Trostyanskaya (Ref 7: Khimiya sinteticheskikh polimerov [Synthetic Chemistry of Polymers], Goshimizdat, Moscow, 1960, 188 - 192); M. Imoto (Ref 9: Khimiya i tekhnologiya polimerov [Chemistry and Technology of Polymers], 2. 1957, Inlitizdat, p 131); M.S. Akulin, N.I. Parlashkevich and I.N. Kogan (Ref 10: Plasticheskiye massy, no. 6, 1960, 2 - 3); and, H.U. Usmanov and C.A. Azimov (Ref 16: Vysokomolekulyarnyye soyedineniya, no. 10, 1960, 1,459 - 1,462). In most cases homopolymers form concomitantly with the grafting reaction. The kinetics of these two simultaneous reactions could be studied by separating the individual polymers from the reaction medium. Such studies on the grafting of styrene on polyisobutene were conducted

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by J. Sebban-Danon (Ref 21: Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, Moscow, 1960, Section III, 177 - 182) and several other Western scientists. Chapter 4 of the article dealing with the production of graft cellulose copolymers, was presented at the plenary session of the institutul de chimie "P. Poni" ("P. Poni" Chemical Institute) at the Iași branch of Rumanian Academy on June 4, 1961. The synthesis of copolymers grafted on cellulose chains or other polysaccharides is treated little in the literature. The authors refer to a few Western publications and to H. U. Usmanov (Ref. 4). To obtain cellulose products with well-defined characteristics, the authors have grafted polyacrylonitrile on a number of cellulose derivatives, e.g. carboxy-methyl cellulose (CMC) with  $\eta = 0.9$ , by using for the initiation of the reaction energy produced by ultraviolet rays, ultrasonic waves, X-rays, etc. As to grafting of CMC, the only literature known is a paper by Z.A. Rogovin, V.A. Derevitskaya, Tun Suni, Veigan Chizhan, and L.S. Galbraikh [Abstracter's note: the last three names are written Suni Tun, Cijan Veigan and Galbraih in the Rumanian original] (Ref 33: Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, Moscow, 1960, Section III, 302 - 308) who obtained grafted copolymers of CMC and polyenanthalamide by polycondensation of the methyl ester of amino-enanthic acid with the methyl ester

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of CMC, or of the CMC amide with the methyl ester of amino-enanthic acid. For the production of graft cellulose derivatives, 30 - 40-~~A~~-thick CMC films were introduced into a slightly acid aqueous solution, containing the monomer and a ceric salt. The polymerization of the monomer on CMC chains was achieved under the action of energy sources mentioned above. The grafting of the cellulose and of its derivatives presented a topochemical characteristic. The CMC-copolymer, whose homopolymer has been removed by rinsing with dimethyl formamide at a normal temperature, is a brittle product, less transparent than the initial CMC film. The grafted film begins to turn yellow when heated to 170°C. At 210°C its color changes to dark brown and at more than 220°C it deteriorates considerably, while at 245°C the material will be fully carbonized. The graft copolymer is stable against 80%-sulfuric acid solutions. In 90%-sulfuric acid, a viscous solution of grafted carboxy-methyl cellulose is produced which can be re-precipitated by dilution. By increasing the grafting degree, the stability of  $[CMC]/g$  increases also against 90%-sulfuric acid. The grafted polymer dissolves in 37%-hydrochloric acid, no viscous solution being produced. It is insoluble in 58%-phosphoric acid and swells under the influence of concentrated solutions of 80-90%- $H_3PO_4$ . Evidence of the formation of a chemical

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compound by the action of various reactants on cellulose may also be obtained by X-ray research. In conclusion the authors emphasize that there is a universal trend to change the characteristics of natural and synthetic polymers, to improve their properties and to widen the range of use. Z.A. Rogovin and V.A. Kargin (Ref 35: *Khimicheskaya nauka i promyshlennost'* 6, 1959, 691) clearly pointed out the basic directions for the improvement of the quality of cellulose material used as natural polymers. There are 10 figures, 2 tables and 35 references: 20 Soviet-bloc, 11 non-Soviet-bloc and 4 unidentified. The four most recent references to English-language publications read as follows: H. Sobue, Y. Tazima and Y. Shimokawa: *Journal of Applied Polymer Sci.*, vol. IV, no. 11, 1960, 244; Y. Shimokawa and K. Tomioka: *Journal of Polymer Sci.*, vol. XLIV, no. 143, 1960, 195 - 211; E.G. Corgain, T.D. Pendle and D.T. Turner: *Journal of Polymer Sci.*, vol. XXXIX, no. 135, 1959, 419 - 426; and H. Kamagowa and T. Sakiya: "Graft polymerization of acrylamide onto cotton", - Paper sent for publication in the *Buletinul Institutului politehnic din Iasi* (being published) in 1960.

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ASSOCIATION: Institutul Politehnic-Iași, Catedra de celuloză, hirtie și fibre artificiale (Iași Polytechnic Institute, Department of Cellulose, Paper and Artificial Fibers)

Card 6/6

SIMIONESKU, K. [Simionescu, C.]

Concerning the problem of the inhibiting action of the natural and synthetic antioxidants in the process of cellulose decomposition. Rev chimie 7 no. 1: 521-529 '62.

1. Chlen-korr. Akademii RNR. Institut khimii "Petru Poni" Akademii RNR, Yassy.