

LUNGU, L.

"Batrachospermum anatinum Sirodot var. Polymorphum var. n. in flora
algologica din tara." Comunicarile, Academiei Republicii Populare Romine, Vol. 7,
No. 10, 1957.

LUNGU, L.; STEFURAEC, T.; POPESCU, A.

Aspects of the association with Buxbaumia aphylla L. in formations of spruce trees Picea excelsa (Lam.) Link with the Lotru-Paring Mountains of the southern Carpathians. P. 61.

(BULETIN STINTIFIC. SECTIA DE BIOLOGIE SI STINTE AGRICOLE. Vol. 9, No. 1, Jan./Mar. 1957. Bucuresti, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 10, October 1957. Uncl.

LUNGU, L.

New conceptions regarding investments for roads and forest railways in Rumania p. 455

(REVISTA PODURILOR. Vol. 71, No. 7, July 1957. Bucuresti, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 10, October 1957. Uncl.

LUNGU, L.; STEFUREAC, T.; POESCU, A.

New contributions to the knowledge of the flora and vegetation of Bryophyta in the Lotru valley. p. 7.

STUDIUL CERCETARI DE BIOLOGIE. SERIA BIOLOGIE BEGETALA. Bucaresti, Romania. Vol. 11, no. 1, 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960

Uncl.

LUNGU, M.

TECHNOLOGY

Periodicals: PETROL SI CAZE. Vol. 9, no. 9, Sept. 1958

LUNGU, M. Chemical cleaning of the calcareous scales from the condenser and refrigerator tubes in oil refineries. p. 400

Monthly List of East European Accessions (EFAI) IC, Vol. 8, No. 2,
February 1958, Unclass.

NASTAC, E.; LUNGU, M.; DONA, G.; RUTTER, G.

Experimental research on murine leukemia. V. Isolation of a cytopathogenic agent from line C-57 mouse leukemic products in human embryo cultures "in vitro". Stud. cercet. inframicrobiol. 14 no.2:155-160 '63.

1. Comunicare prezentata la Institutul de inframicrobiologie al Academiei R.P.R.

(LEUKEMIA, EXPERIMENTAL) (TUMOR VIRUSES)

NASTAC, E.; BALMUS, G.; POPESCU, Gr.; LUNGU, M.; RUTTER, G.; CIUFECU, E.

Virus-host cell relations in the case of infection of Ehrlich ascites tumor with different viruses. IV. The cultivation of agents AE.1 and AE.2 in the developing chick embryo. Stud. cercet. inframicrobiol. 15 no.3:241-244 '64.

NASTAC, E.; CIUFECU, E.; LUNGU, M.; ISAIA, G.; BALMUS, Gh.; DONA, G.;
HOZOG, M.; POPESCU, Gr.; RUTTER, G.

Experimental research on murine leukemia. VII. Some characteristics of the virus isolated from leukemic mice of the C.57 line.
Stud. cercet. inframicrobiol. 15 no.5:441-446 '64.

SAMUEL, I.; NASTAC, Elisabetaj; CIUFECU, Elviraj DUNGU, Mihaelias
BALMUS, G.; RUTTER, G.

Experimental research on murine leukemia. 8. Action of desoxyribonucleic acid extracted from murine leukemia tissues from the line C. 57 B. Stud. cercet. inframicrobiol. 16 no.1: 69-79 '65.

MILCU, St.-M., academician; NICOLESCU, CATARGI, Al.; LUNGU, Micaella;
LUNGU, Al.

The divergent evolution of basal metabolism and specific dynamic
action after lesion of the amygdaloid nuclei. Stud. cercet. endocr.
13 no.2:201-209 '62.
(GANGLIA, BASAL physiology) (BASAL METABOLISM)

RUMANIA

616.155.392

BALMUS, G., LUNGU, Micaella, NASTAC, Elizabeta, RUTTER, G., STOIAN, M., CAPOTA, Stela, and MANEA, Tanta, of the Institute of Inframicrobiology (Institutul de Inframicrobiologie) of the Academy of the Socialist Republic of Rumania (al Academiei Republicii Socialiste Romania).

"Experimental Studies in Murine Leukemia. X. The Pathogenetic Character of a Suspension of Human Fibroblast Cells Infected with Virus C57 for the Developing Chick Embryo."

Bucharest, Studii si Cercetari de Inframicrobiologie, Vol 17, No 2, 66, pp 105-109.

Abstract: The authors found that a suspension of 1,000,000 human fibroblast cells inoculated in vitro with virus C57 brought about the death of developing chick embryos in 100 percent of the observed cases. Death occurred after 3 to 5 days; the lesions observed were of the infiltrative and particularly of the proliferative type.

Includes 7 figures and 10 references, of which 5 Rumanian and 5 English-language. -- Manuscript submitted 3 January 1966.

1/1

- 42 -

RUMANIA

612.441:619:616.988

LUNGU, Micaella, ATHANASIU, Pierrette, and BURDUCEA, O. , of the Institute of Inframicrobiology (Institutul de Inframicrobiologie) of the Academy of the Socialist Republic of Rumania (al Academiei Republicii Socialiste Romania).

"Morphofunctional Changes in the Thyroid Gland of White Rats Inoculation with Aujeszky Virus."

Bucharest, Studii si Cercetari de Inframicrobiologie, Vol 17, No 2, 66, pp 111-116.

Abstract: A study of the dynamics of radioactive iodine accumulation in the thyroid and of basal metabolism in white rats inoculated with Aujeszky virus shows that within three days after infection there appears a strong inhibition of iodine accumulation as well as a constant and definite lowering of basal metabolism; histological changes in the thyroid accompany these changes.

Includes 5 figures and 10 references, of which 6 Rumanian, one Russian, 2 German and one French, as well as one table. -- Manuscript submitted 5 January 1966.

1/1

LUNGU, Al.; LUNGU, Micaella

The influence of fasting and refeeding on the daily rhythms of
temperature and oxygen consumption. Stud. cercet. endocr. 13
no.2:237-249 '62.

(TISSUE METABOLISM) (FASTING experimental)
(NUTRITION) (BODY TEMPERATURE physiol)

NASTAC, E.; ISAIA, G.; DONA, G.; LUNGU, M.; RUTTER, G.; POPESCU, Gr.

Virus-host cell relations in case of infection of Ehrlich ascites tumor with different viruses. II. Some characteristics of the cytopathogenic agents isolated from the tumor after inoculation in situ of adenovirus, type 3. Stud. cercet. inframicrobiol. 14 no.3:295-304 '63.

(ADENOVIRUS) (CARCINOMA, EHRLICH TUMOR) (ANTIGENS)
(ANTINEOPLASTIC AGENTS)

RUMANIA

E. NASTAC, M. LUNGU, G. DONA and G. RUTTER, Inframicrobiology Institute of the Rumanian Academy [of Science] (Institutul de Inframicrobiologie al Academiei R.P.R., [Bucharest.])

"Experimental Investigations in Murine Leukemia. Part 5. Isolation of a Cytopathogenic Agent from Murine Leukemic Products Line C57 in "in vitro" Human Embryo Cultures."

Bucharest, Studii si Cercetari de Inframicrobiologie, Vol 14, No 2, 1963; pp 155-160.

Abstract [English summary modified]: From blood and brains of C57 mice which are susceptible to spontaneous leukemia, a cytopathogenic agent was isolated to human embryo tissue. Series transmission was possible. It is not clear whether agent is primary or acts by activating latent viruses. Three photomicrographs; 20 Western, 1 Soviet, 1 Japanese and 7 Rumanian references.

1/1

NASTAC, E.; DONA, G.; RUTTER, G.; LUNGU, M.; ISAILA, G.

Virus-host cell relationships in infection of Ehrlich ascites tumor with various viruses. I. An agent with double antigenicity obtained after the inoculation of adenovirus, type 3. Stud. cercet. inframicrobiol. 13 no.6:701-704 '62.

1. Comunicare prezentata la Institutul de inframicrobiologie al Academiei R.P.R.

(CARCINOMA, EHRLICH TUMOR) (ADENOVIRUS)
(TUMOR VIRUSES)

NASTAC, E.; ISALIA, G.; DONA, G.; LUNGU, M.; RUTTER, G.; POPESCU, Gr.

The changes in adenovirus, type 3, after its inoculation in mice with Ehrlich's ascites carcinoma. Rev. sci. med. 8 no.3/4: 147-150 '63.

(CARCINOMA, EHRLICH TUMOR) (ADENOVIRUS)
(ANTIGENS)

NASTAG, E.; BALMUS, G.; POPESCU, Gr.; RUTTER, G.; LUNGU, M.

Experimental research in murine leukemia. VI. The experimental and histopathological study of developing chick embryos inoculated with murine leukemic products from line C 57. Stud. cercet. inframicrobiol. 14 no.4:417-426 '63.

1. Comunicare prezentata la Institutul de inframicrobiologie al Academiei R.P.R.

(LEUKEMIA, EXPERIMENTAL) (TUMOR VIRUSES)
(VIRUS CULTIVATION) (BLOOD) (LIVER)
(SPLEEN) (TISSUE CULTURE)

VERINA, V.N.; LINGU, R.I.; MIRSKIY, D.A.; RADUL, M.M.; RUSANOVSKIY,
V.G.; TODIKA, M.P.; PODRUKHINA, V., red.; KURMAYEVA, T.,
tekhn. red.

[Geography of the Moldavian S.S.R.] Geografia Moldavskoi SSR;
uchebnoe posobie dlia VIII klassa. Kishinev, Gos.izd-vo
"Kartia moldoveniaska," 1962. 112 p. (MIRA 15:11)
(Moldavia--Geography)

Lungu, S.N.

MT

MT

A mechanism of the crystallization of glass. S. N. Lungu. *Comun. Acad. Rep. Populare Romane* 2, 243 (1952). The rate of crystn. of glass was studied by detg. the rate of growth of the crystals. A mechanism of the increase of growth of crystals and the soln. of crystals in fused glass is presented. The O atoms form the links Si-O-Si, and this process takes place homogeneously on the surface without disturbing the heterogeneous nucleation. The formula obtained gives the abs. value of the rate of crystn. observed experimentally and the value of the const. which appears in the empirical formula in the literature for the rate of crystn. of Ca-Na glass. Emmanuel Merdinger

MT

LUNGU, S.N.

Rumania/Chemical Technology - Chemical Products and Their Application. Silicates.
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62294

Author: Lungu, S. N., Popescu-Has, D.

Institution: None

Title: Ceramic Bodies Produced by Crystallization of Fused Silicates

Original

Periodical: Mase ceramice obtinute prin cristalizarea topiturilor de silicati,
Studii si cercetari chim., 1955, 3, No 3-4, 225-232; Rumanian;
Russian and French resumes

Abstract: Presented are the results of experiments on crystallization of
glass at viscosity values of 10^7 - 10^{11} poises. The purpose of the
work was production of fine ceramic bodies of the type of porce-
lain according to the technology of glass manufacture but with the
substitution of annealing by a thermal treatment of a different
kind. In solving the problem the authors made use of high rate of
crystallization of fluorine salt nuclei around which the silicates

Card 1/2

Rumania/Chemical Technology - Chemical Products and Their Application. Silicates.
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62294

Abstract: undergo subsequent crystallization. Thus small heterogeneous crystals are formed. The property of forming heterogeneous crystals is exhibited by silicates of the systems $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-MgO-Na}_2\text{O}$ or K_2O in which O_2 is partially replaced by F. Studies of 3-10 compositions thus produced conducted by X-ray and dilatometric methods have shown that the material has a fine crystalline structure and consists of crystals of uniform size of the order of 10^{-4} cm (having a mica-type structure) included in the body of glass. Strength of the material thus obtained (in kg/cm^2): tensile $>1,000$, bending $>1,500$, compression 7,000; impact strength is 2-3 times greater but electric properties are below those of articles made from hard porcelain; thermal properties approximate those of porcelain. Technology of production of these materials is characterized by the fact that glass annealing operation is replaced by heat treatment at $600\text{-}1,000^\circ$. Low cost of raw materials, low specific expenditure of F (5-10%) and simplicity of production process lower costs of the products by 2-3 times in comparison with porcelain.

Card 2/2

~~LUNGU, S.~~

"Contributions to the calculation of the annealing of glass products."

p. 172 (Industria Usoara) Vol. 4, no. 4 Apr. 1957
Bucharest, Rumania

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

Lungu Stelian N.

RUMANIA/Chemical Technology - Chemical Products and Their
Application. Ceramics. Glass. Binders. Concrete.

H-7

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 2024

Author : Lungu Stelian N.

Inst : -

Title : Analysis of the Process of Evaporation of Alkali and
Fluorides in Fused Glass in the Presence of Flue Gases.

Orig Pub : Ind. usoara, 1957, 4, No 5, 215-217

Abstract : An analysis of the effect of an atmosphere of flue gases
on the loss of alkali and fluorides from fused glass.

Card 1/1

LUNGU, S. N.

RUMJIL/Chemical Technology. Chemical Products and Their
Application. Ceramics. Glass. Binding Materials.
Concrete.

H

Abs Jour: Ref Zhur-Khim., No 10, 1959, 35739.

Author : Lungu, S. N. and Popescu-Has, D.

Inst :

Title : Thin Ceramic Bodies Produced by the Crystallization
of Glass (Porcelain From Glass)

Orig Pub: Ind Usoara, 5, No 2, 63-65 (1958) (in Rumanian with
summaries in German, English, French, and Russian)

Abstract: The authors are reporting the results from investi-
gations undertaken for the purpose of investigating
the possibility of producing porcelain from glass (G)
by crystallization (C). The principal condition
which must be met by such wares is the achievement of a

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RUMANLI./Chemical Technology. Chemical Products and Their
Application. Ceramics. Glass. Binding Materials.
Concrete.

H

Obs Jour: Ref Zhur-Khim., No 10, 1959, 35739.

sufficiently rapid rate of homogeneous C at temperatures corresponding to a minimum viscosity of 10^{10} - 10^{11} poises in order to avoid softening and deformation during heat treatment of the G. Experiments have shown that G containing very small additions of F meet the above requirement. The use of F is based on the known property of fluorides to crystallize out of G at very high viscosities. The simplest systems in which homogeneous crystallization was observed are the following: SiO_2 -MgO- Na_2O ; SiO_2 -MgO- K_2O ; SiO_2 - Al_2O_3 -MgO- Na_2O ; SiO_2 - Al_2O_3 -MgO- K_2O ; and SiO_2 - Al_2O_3 -MgO-CaO. The crystals which are formed

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RUMANIA/Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concrete.

H

Abs Jour: Ref Zhur-Khim., No 10, 1959, 35739.

have an average size of 1-5 μ , a needle-like shape, and form spherulites about a given center. The dependence of the degree of C on the composition was measured quantitatively by the change in the density. The data obtained indicate that in the system $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-MgO-Na}_2\text{O}$ the degree of C depends on the sum of the concentrations of Al_2O_3 and MgO. Curves giving the dependence of the increase in the coefficient of expansion on the SiO_2 content of the body, of the change in density during C on the Al_2O_3 content, of the variation of the degree of C on the heat treatment time, and of the change in the deformation under load as a

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Card : 4/4

HUNGARY/Chemical Technology. Chemical Products H-13
and Their Applications. Ceramics. Glass.
Binding Materials. Concrete.

Abs Jour : Ref Zhur-Khiniya, No 77, 1959, 24093

Author : Lungu, S., Popescu-Has, D.

Inst :
Title : The Theoretical Basis for the Obtainment of
Porcelain from Glass.

Orig Pub : Epitoanyag, ¹⁴³⁷1858, 10, No 3, 86-89

Abstract : The new method of obtaining porcelain consists of the normal process of glass manufacture, of shaping from it (by one of the available methods) various articles, and then, by means of a special thermal treatment, of converting them from the glass-like into an

Card : 1/7

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HUNGARY/Chemical Technology. Chemical Products
and Their Applications. Ceramics. Glass.
Binding Materials, Concrete.

H-13

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24093

entirely crystallized-out mass that has the structure of porcelain. The crystallization process, which constitutes the basis of obtaining porcelain from glass, is a new one insofar as physical chemistry of silicates is concerned, since the process occurs at low temperatures and results in the homogeneous crystallization of glass at viscosities of 10¹⁰ - 10¹¹ poises. Chemical composition and mineralogical structure of porcelain made of glass are entirely new and uncommon, and the formed crystals of silicates have different character-

Card : 2/7

HUNGARY/Chemical Technology. Chemical Products
and Their Applications. Ceramics. Glass.
Binding Materials. Concrete.

H-13

Abs Jour : Ref Zhur-Khiniya, No 7, 1959, 24093

ristics, are more uniform in size and are homogeneously distributed. The above facts permitted the authors to propose a new theory of their formation. The first of the unusual properties of the "porcelain" glass pertaining to the thermodynamics of crystallization is their complete crystallization during the thermal treatment. The second unusual characteristic is the crystallization at viscosities exceeding 10^5 poises, a viscosity, at which crystallization of common glass occurs ($10^3 - 10^5$ poises). It has been proved, that the formation

Card : 3/7

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HUNGARY/Chemical Technology. Chemical Products
and Their Applications. Ceramics. Glass.
Binding Materials. Concrete.

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Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 24093

of silicate crystals in a glass mass starts from nuclei of the impurity particles present on the surface of the mass or on the surface of other crystals. The formation of crystals within the mass is the direct result of the presence of foreign particles. The direction of crystal growth is always from the surface toward the interior, or from the surface containing impurities. Thus produces mass lacks homogeneity. In the case of porcelain glass, on the other hand, crystallization proceeds throughout the entire mass. With respect to orientation and distri-

Card : 4/7

HUNGARY/Chemical Technology. Chemical Products
and Their Applications. Ceramics. Glass.
Binding Materials. Concrete.

H-13

Abs Jour : Ref Zhur-Khiniya, No 7, 1959, 24093

transition from the first stage, in the manner described below. The appearance of heterogeneous nucleation on the fluoride crystals is assumed. Such a nucleation passes through intermediate stages, in which the subsequent crystal layers, progressively richer in oxygen ions, are formed which form a progressive stronger bondage with the fluorine ions. These intermediate stages are possible and realistic under the equality conditions of the ionic radii of fluorine and of oxygen (1.33 Å and 1.32 Å). This theory explains well basic properties of porcelain.

Card : 6/7

~~Stelian N. Lungu~~ LUNGU, S. N.

4

Theoretical basis for the production of porcelain from glass.
 Stelian N. Lungu and Dumitru Ponescu-Has (Research
 Inst. Materials Construction, Bucharest, Romania). *Sil-*
icates Inds., 23, 391-5 (1956). -- By partial low-temp. crystn.
 of fluoride contg. silicate melts it is possible to develop
 bodies having the appearance and properties of porcelains.
 As a principal advantage of this process is mentioned the
 homogeneity of the structure by a regular distribution of
 controlled cryst. phases. The viscosity of the crystg. glass
 melt is high, namely 10^{10} to 10^{11} , i.e. by 10^6 higher than in
 usual devitrification; and not starting from inclusions or
 step of such a crystn. is a segregation of fluoride centers as
 microheterogeneities, comparable to the development of
 sulfide-selenides in colored glasses. The 2nd step is the
 crystn. of silicates by heterogeneous nucleation. The simi-
 larity of the anions F⁻ and O²⁻ is one of the important rea-
 sons for such an induced crystn. The silicate crystals are of
 mica type (e.g. Na phlogopite) with transitions to compds.
 written e.g. Mg₂(F₂/Al₂O₄F₂). A curve is discussed (of
 S-shaped type) for the degree of crystn. as a function of time

of the thermal exposure at const. temp. A detailed analyti-
 cal derivation of the concn. of the cryst. material under the
 conditions involved is also given. The exper. results do
 not strictly correspond to the math. requirements of the
 calcn. by a distinct time function of the viscosity. There
 is a viscosity optimum for the homogeneous crystn., called
 the "apparent equil. viscosity" which is higher than that of
 rapidly cooled melts. The process of homogeneous crystn.
 is somewhat comparable to that of annealing equil.

RB
4/1

W. R. ... [Signature]

LUNGU, S.; POPESCU-HAS, D.

Theoretical bases for obtaining porcelain from glass. p. 177

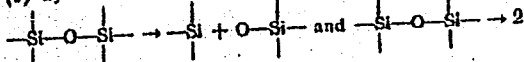
INDUSTRIA USOARA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din
România si Departamentul Industriei Usoare din Ministerului Industriei
si Comerțului Bucuresti, Rumania; Vol. 6, no. 5, May 1959.

Monthly List of East European Accessions (EEAI) IC Vol. 8, No. 9, ^{Sept.} 1959

Uncl.

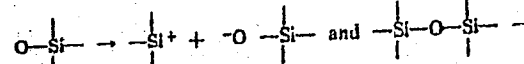
Theory of the viscosity of glassy silicates. Stelian N. Lungu (Inst. Construction Material Research, Bucharest, Romania). *Silicates Inds.* 24, 124-36 (1959) [in English].
 The different mechanisms and model concepts on which previous authors based their theoretical calculus of the viscosity from the mol. state of glasses are discussed in the formulas given (1) by Frenkel, Eyring, Seddon, and Bockris and Love; (2) by Douglas, Dienes, and Hodgdon and Stuart; (3) by Jeuckel, Oldekop and Holzmüller. The criticisms are chiefly directed against 1 and 3. Starting from the viscosity measurements of SiO₂ glass (by Solonits and Volarovich-Leontjeva, cf. Eitel, *The Physical Chemistry of the Silicates*, 1954 (C.A. 48, 9178a)) P. considers 2 different activation processes, activation (a) by at., and (b) by ionic dissoen. For a are the decisive reactions:

3
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$\begin{array}{c} | \\ \text{---Si---} \end{array} + \text{O}$, for which the free energies $\Delta F \approx \Delta H$ are calcd.

For b are valid the following dissoen. mechanisms: $\begin{array}{c} | \\ \text{---Si---} \end{array}$



$\begin{array}{c} | \\ \text{---Si}^+ \end{array} + \text{O}^- + \begin{array}{c} | \\ \text{---Si---} \end{array}$. The thermodynamic theory of the

interactions of these reactions developed for the "inner mobility" of the whole system is sufficiently general and uniform; and has the special advantage over others that it can be expressed in phys. parameters to be immediately interpreted.
 W. Eitel

LUNGU, S.N.; POPESCU HAS, D.; TEODORESCU, I.; MARTALOGU, N.

Selective crystallization and volume hysteresis in the microcrystallized masses of the system $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-Li}_2\text{O}$ and in the derived systems. (EEAI 10:8)
Studii cerc fiz 11 no.4:851-857 '60.

1. Institutul de fizica atomica, Bucuresti.
(Alumina) (Lithium oxide) (Crystallization)
(Hysteresis) (Systems(Chemistry)) (Silica)

COMSA, George; LUNGU, Stelian; SIMIONESCU, Constantin

A tight and degasifying clamp. Studii cerc fiz ll no.4:1057-1059
'60. (EEAI 10:8)

1. Institutul de fizica atomica, Bucuresti.
(Clamps) (Insulation(Heat)) (Gases) (Vacuum)

LUNGU, S.N.

Diagram of equilibrium and the mass obtained from the fusion of the system silicon dioxide--uranium dioxide. Studii cerc fiz 13 no.5:739-746 '62.

1. Institutul de fizica atomica, Bucuresti.

LUNGU, Stelian N.

Irradiation action on the volume and mechanical resistance
of ceramic masses obtained by silicate melting. Studii cerc
fiz 14 no.6:815-817 '63.

1. Institutul de fizica atomica, Bucuresti.

Lungu, T.

~~MIHAILSCU, A.~~
~~BUCHARA (in case); Given name~~

3

Country: Rumania

Academic Degree: Conf. Dr. ✓

School of Veterinary Medicine (Facultatea de Medicina Veterinara), Bucharest. ✓

Source: Bucharest, Problema Zootehnica si Veterinara, No 8, Aug 1961, pp 51-62.

Title: "Parenteral Treatment of Sheep Dictyocaulosis."

Co-authors:

- ✓ LUNGU, T., Veterinarian, School of Veterinary Medicine, Bucharest
- ✓ PACALIA, I., Veterinarian, School of Veterinary Medicine, Bucharest.

CENTEA, Alexandra, dr.; LUNGU, Tr., dr.; PETRESCU, G., dr.

Clinico-radiological aspects of bilio-bronchial fistulas.
Med. intern. (Bucur) 17 no.2:237-240 F'65.

1. Lucrare efectuata in Clinica de ftizologie, Institutul
medico-farmaceutical, Cluj (director: prof. L. Daniello).

RUMANIA

LUNGU, Tr., Veterinarian, and MILA, C., Veterinarian of the Faculty of Veterinary Medicine (Facultatea de Medicina Veterinara) Bucharest, and OGNERU, D., Dr. of the Buftea Veterinary Circumscription (Circumscriptia Veterinara Buftea), Racara Raion.

"Therapeutic Observations Concerning the Babesiosis of Ruminants."

Bucharest, Revista de Zootehnie si Medicina Veterinara, Vol 13, No 11, Nov 63, pp 52-55.

Abstract [Authors' English summary modified]: The authors report the results of using the imported product Berenyl for babesiosis of cattle and sheep. A single intramuscular injection in a dose of 3.5 mg per kg live weight, in 7 percent aqueous solution, led to the complete recovery of the animals. The solution was freshly prepared. The chemical prophylactic effect for sheep that had received a single therapeutic dose was evident for 12 days thereafter. Includes 2 tables and 6 Rumanian references.

GENTEA, Alexandra, dr.; GHERMAN, Gr., dr.; MOISESCU, V., dr.; LUNGU, Tr., dr.

Considerations on 3 cases of association of pulmonary tuberculosis and leukemia. Med. intern. (Bucur.) 16 no.11:1377-1382 N '64

1. lucrare efectuata in Clinica de ftiziologie, Institutul medico-farmaceutic, Cluj (director: prof. I. Daniello).

RUMANIA/Diseases of Farm Animals. Diseases Caused by
Helminths.

R

Abs Jour:Ref Zhur-Biol., No 15, 1958, 69492.

Author : Vladutiu, O.; ~~Lungu, V.~~; Murgu, I.; Blidaru, T.
Inst : Institute of Agronomy "N. Balcescu"
Title : Surgical Treatment of Coenurosis in Sheep.

Orig Pub: Lucrarile Sesiunii stiint. Inst. agron. "N. Balcescu",
1955. Bucuresti, 1955, 1, 379-391.

Abstract: No abstract.

Card : 1/1

POU'KIN, S.I.; ZHAVORONOK, V.I.; LUNIN, V.D.

Using tanning substances obtained from Kazakhstan and
Central Asia plants for the flotation of certain minerals.
Izv.vys.ucheb.zav.; tsvet.mst. 8 no.2:18-20 '65. (MIRA 19:1)

1. Kafedra obogashcheniya rud redkikh i radioaktivnykh metallov
Moskovskogo instituta stali i splavov.

LUNGU, Virgil

Liver fluke in the Rumanian People's Republic (epizootiology and control). Wiadomosci parazyt., Warsz. 5 no.4-5:345-355 1959.
(DISTOMIASIS, veterinary)

RUMANIA

Dr V. LUNGU, Veterinary Research and Immunotherapy Institute "Pasteur."

"Treatment and Prevention of Chicken Coccidiosis."

Bucharest, Revista de Zootehnie si Medicina Veterinara, Vol 13, No 5,
May 63; pp 60-68.

Abstract [English summary modified]: A review of epizootiology of
coccidiosis in chickens based on published Western and Soviet data.
Many data are detailed regarding results reported with various
sulfonamides, nitrofurans, antibiotics and other chemotherapeutic agents
in the treatment. Eight Western, 7 Soviet and 5 Rumanian References.

1/1

LUNGUIONESCU, Gh.

SURNAME (in caps); Given Names

Country: Rumania

Academic Degrees: Engineer

Affiliation: Selection Center of the Ministry of Agriculture (Centrul de
Selectie al Ministerului Agriculturii), Timisoara.

Source: Bucharest, Probleme Zootehnice si Veterinare, No 7, Jul 61,
pp 12-19.

Date: "How Has the Production of Milk Increased at the Grabat State
Farm."

ROMANIA

LUNGULESCU, Gh., Eng, of the Banat Selection Center (Centrul de Selectie Banat).

"Breeding of Milk Cows at the Bulgarus State Farm, Sinnicolau Mare Raion, Banat Regiune."

Bucharest, Revista de Zootehnie si Medicina Veterinara, Vol 13, No 6, Jun 63, pp 37-40.

Abstract: Describes the various measures adopted by the farm to increase its stock of cattle, and the importance accorded to pasturing, animal selection based on zootechnical evaluations, and proper care. The increased milk yield and overall economic advantages due to a rational activity in this sector are emphasized. Contains 3 tables and 1 figure.

1/1

RIMNICMANU, C.; MICLEA, C.; LUNGULESCU-DRAGAN, M.

Glycogenesis during development of the chick embryo. Bul. stiint.,
sect. med. 7 no.3:960-980 July-Sept 55

(EMBRYO
develop. of chick embryo, glycogenesis in)
(GLYCOGEN
glycogenesis during develop. of chick embryo)

NECIU, St.; POPESCU, S.; AURELIAN, M.; LUNGURAN, V.

Problems connected with polarographic determination of indium.
Rev chimie Min petr 14 no.9:528-531 S '63.

NICOLAESCU, V.; BINIG, L.; LUNGUREAN, V.; UDRESCU, F.

Polarographic determination of germanium. Rev chimir Min petr
13 no.7:431-432 J1 '62.

LUNIAK, Maciej

----- Certain problems connected with the formation of the avifauna in cities. Przegl zool 3 no.2 162-165 '64.

1. Institute of Zoology, Polish Academy of Sciences, Warsaw.

LUNICHENKO, M.V.

Avulsion of the upper arm and shoulder blade. Ortop., travm. i protez.
17 no.1:65 Ja-F '56. (MIRA 9:12)

1. Iz 2-y Nikopol'skoy gorbol'nitsy (glavnyy vrach - V.P.Spivak)
(SHOULDER JOINT--WOUNDS AND INJURIES)

SAFRONOV, I., general-mayor aviatsii; LUNICHEV, A., podpolkovnik

It is not enough to pledge. Av. 1 kosm. 48 no.8:33-37 Ag '65.

(MIRA 18:7)

LAZARIS, A.Ya.; ZIL'BERMAN, Yo.N.; LUNICHEVA, E.V.; VEDIN, A.M.

Study of the formation of by-products during hydrogenation of
adiponitrile. Zhur. prikl. khim. 38 no.5:1097-1101 My '65.
(MIRA 18:11)

LUNICHKINA, A. N. (Krasnoyarsk)

File-driver equipment mounted on the D 271 bulldozer. Suggested
by A. N. Lunichkina. Stroi. truboprcv. ? no.4:27 Ap '63.
(MIRA 16:4)

(Piling(Civil engineering)—Equipment and
supplies)

LUNICHKINA, K. P.

SOV/78-3-9-16/28

AUTORS: Shevchenko, J. B., Fovitskiy, N. S., Solovkin, A. S., Shilin, I. Ya., Lunichkina, K. P., Yevetkova, Z. N.

TITLE: The Extraction of Nitric Acid With Tributyl Phosphate (Ekstraktsiya azotnoy kisloty v tributilfosfat)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958. Vol 3, Nr 9, pp 2109-2112 (USSR)

ABSTRACT: The distribution of nitric acid between the aqueous and the organic phase containing tributyl phosphate in dependence on the aqueous phase and the nature of the solvent of tributyl phosphate was investigated. From the results may be concluded that K_p considerably depends on the nature of the solvents of tributyl phosphate. The influence of the nature of the solvents on the distribution of nitric acid between water and tributyl phosphate was investigated in the case of an ionic strength of the solution of 1, 0,5 and 3. The maximum value of K_p in nitric acid solution with the ionic strength of 3 is obtained if toluene is used as solvent for tributyl phosphate. The change of K_p by the nature of the solvent in the case of an ionic strength of 3 is to be divided as follows: toluene, benzene, kerosene, CCl_2F-CCl_2F , CCl_4 . The following variation of the above sequence takes place if the ionic strength is reduced to 1: kerosene, toluene, benzene, CCl_2F-CCl_2F , CCl_4 . Comparative investigations of the extractions in $HClO_4$ and HNO_3 solutions showed that the complex $HClO_4 \cdot TBP$ is to a greater extent polar than the complex $HNO_3 \cdot TBP$. There are 2 figures, 1 table, and 9 references, 4 of which are Soviet.

SUBMITTED: August 3, 1957

Card 1/2

Card 2/2

S/078/60/005/009/015/017
B015/B064

AUTHORS: Solovkin, A. S., Povitskiy, N. S., Lunichkina, K. P.

TITLE: Formation of the Third Phase in the System
 $UO_2(NO_3)_2 - HNO_3 - H_2O - \text{Tri-n-butyl Phosphate}$ - "Kerosene"

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 9,
pp. 2115-2118

TEXT: The formation of a third phase of the system mentioned in the title was investigated. The uranium content was gravimetrically determined, and the tributyl phosphate content in the organic phase (after separation) was colorimetrically measured with a CФ-27(SF-2) spectrophotometer. All experiments were conducted at room temperature. It was found that the formation of a third phase was independent of the concentration of uranyl nitrate (at sufficiently high acidity) (Table 1). A decrease of acidity below a certain point leads, also in the presence of large amounts of uranyl nitrate, to the vanishing of the third phase (Table 2). Absorption spectra (recorded by L. V. Lipis) showed that uranium appeared in the organic phase as neutral, non-ionized molecules $UO_2(NO_3)_2$ solvated with

Card 1/2

Formation of the Third Phase in the System S/078/60/005/009/015/017
UO₂(NO₃)₂ - HNO₃ - H₂O - Tri-n-butyl Phosphate - B015/B064
- "Kerosene" ✓

two tributyl phosphate molecules. The determination of the solvation number showed (Table 3) that the complex compound formed in the third phase corresponded to the formula $H[UO_2(NO_3)_3] \cdot 2$ tributyl phosphate. There are 1 figure, 3 tables, and 9 references: 5 Soviet, 2 British, and 1 German.

SUBMITTED: April 21, 1959

Card 2/2

LUNICHKINA, K.P.; POVITSKIY, N.S.; SOLOVKIN, A.S.

Three-phase demixing in the system $UO_2(NO_3)_2 \cdot HNO_3 - H_2O -$
diisooamyl ester of methylphosphinic acid - "kerosine" in
the presence of oxalic acid. Zhur. neorg. khim. 7 no.8:
2019-2020 Ag '62. (MIRA 16:6)

(Uranyl nitrate) (Systems(Chemistry))

LUNIEWSKI, ADAM

PA 30730

POLAND/Geology

Jun 1947

"Notes on Geology in the Vicinity of Radomsko," Adam Luniewski, 10 pp

"Biuletyn, Panstwowy Instytut Geologiczny" No 38

Posthumous publication of research on the Jurassic formation of Radomsko (Central Poland), with sections on stratigraphy, tectonics, fresh water formation, etc. Two geological maps of the area.

SI

30730

LUNIEWSKI, ADAM

PA 30T31

POLAND/Geology

Jun 1947

"Four Deep Bore Holes in Kujawy," Adam Luniewski,
23 pp

"Biuletyn, Panstwowy Instytut Geologiczny" No 38

Posthumous publication of the results of borings at
Kujawy, in North Poland, on a continuation of the
Swiety Krzyz Mountains to the north-northwest. In-
cludes lists of the results of the bores, and
graphical summary of findings.

SI

30T31

LUNIEWSKI, Bohdan, mgr inż.

Eleventh International Congress on Cooling Engineering in Munich.
Przegl techn 84 no.42:9 20 0 '63.

LUNIEWSKI, Jan

The satellite Pegasus. Problemy 21 no.4:243 '65.

KAZIMIRSKIY, P.S. [Kazimirs'kiy, P.S.]; LUNIK, F.P. [Lunyk, F.P.]

Complement of a one-row matrix to a reversible matrix over a non-commutative ring. *Dop. AN USSR no.6:706-710 '65.*

(MIRA 18:7)

1. L'vovskiy politekhnicheskii institut.

LUNIK, Z. I.

USSR/Nuclear Physics - Tb isomer

Jul/Aug 53

"Study of Tb 160 Emission," L. Ya Shavtalo

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 503-505

Studied radioactivity of long-lived (74d) isomer of Tb160. After plotting Fermi's graph, author obtained values of upper limits of partial spectra, shown in graphs. Indebted to Ye. F. Klyukvina and Z. I. Lunik. Rec 9 Jul 53.

272T49

L 13086-63 EPF(c)/EWP(j)/BDS/EWT(m) Pr-l/Pc-l RM/RW
ACCESSION NR: AP3002830 S/0152/63/000/005/0057/0062

AUTHOR: Paushkin, Ya. M.; Lunin, A. F.; Myrtychan, V. R. 64
63

TITLE: The effect of ultraviolet irradiation on the process of isomerization of cyclohexane into methylcyclopentane 1

SOURCE: IVUZ. Neft' i gaz, no. 5, 1963, 57-62

TOPIC TAGS: ultraviolet irradiation, cyclohexane, methylcyclopentane, aluminum chloride, methylcyclopentane, cyclohexane

ABSTRACT: A detailed study of the effect of ultraviolet irradiation on the process of isomerization of cyclohexane into methylcyclopentane is presented. It was shown that when the isomerization reaction is conducted at a temperature of 80C in a liquid phase in the presence of only aluminum chlorides as a catalyst, the rate of attaining equilibrium is almost five times slower than in the case where ultraviolet irradiation is used simultaneously with the catalyst. Isomerization of cyclohexane under the influence of only ultraviolet irradiation proceeds at a very slow rate; however, the temperature does not affect the rate of isomerization. The isomerization of cyclohexane in the vapor phase using aluminum chloride catalyst was also investigated. The optimum conditions in this case are at a temperature of 150C and raw material infeed of 0.05 hr sup-1 with an aluminum chloride
Card 1/2

L 13086-63
ACCESSION NR: AP3002830

content in the catalyst of 5% and simultaneous subjection to ultraviolet irradiation. The isomerized product after the above treatment consisted of 60% methylcyclopentane and 40% of the unreacted cyclohexane. Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. I. M. Gubkina (Moscow Institute of Petrochemical and Gas Industry)

SUBMITTED: 06Dec62 DATE ACQ: 24Jul63 ENCL: 00
SUB CODE: 00 NO REF SOV: 006 OTHER: 006

Card 2/2

PAUSHKIN, Ya.M.; LUNIN, A.F.; MKRTCHAN, V.R.; LANKA, A.M.

Isomerization of cyclohexane in methyl cyclopentane. Trudy
MINKHIGP no.44:58-63 '63. (MIRA 18:5)

L 11109-63

EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD/ESD-3/RPL Pc-l/Pr-l

EM/EN/WW/JW/MAY/JWD/H

ACCESSION NR: AP3001407

S/0020/63/150/004/0823/0825

AUTHOR: Paushkin, Ya. M.; Lunin, A. F.

78
77

TITLE: Synthesis of new nitrogen- and hydroxy-containing polymers with conjugated bonds from sodium carbonate and ammonium chloride

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 823-825

TOPIC TAGS: polycyanamide, polycyanic acid, synthesis, decomposition, solubility, polymerization, IR spectrum, EPR spectrum, polymer, conjugated system, polymer semiconductor

ABSTRACT: Polycyanamide $\left[- \overset{\text{NH}_2}{\text{C}} = \text{N} - \right]_n$ and polycyanic acid $\left[- \overset{\text{OH}}{\text{C}} = \text{N} - \right]_n$ have been synthesized for the first time, with yields of 48 to 87%, by heating solid NH_4Cl and Na_2CO_3 and NaHCO_3 in the presence of ZnCl_2 for 5 to 30 hr at 250 to 300C and 20 to 25 atm in the absence of oxygen. Polycyanamide, a brown, infusible, fine crystalline powder, decomposes at over 700C. Polycyanic acid is also infusible and has a decomposition temperature of the same order. The polymers are soluble in formamide and dissolve in organic and inorganic acids with liberation of heat. Their solubility drops with an increase in the degree of polymerization. The

Card 1/2

L 11109-63

ACCESSION NR: AP3001407

structure of the polymers was determined by IR spectral analysis and EPR spectra. The intrinsic viscosity of polymer solutions in formamide varied between 0.10 and 0.175. The work was presented by Academician A. V. Topchiyev. Orig. art. has: 2 figures, 2 formulas, and 1 table.

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promy*shlennosti im. I. M. Gubkina (Moscow Institute of Petrochemical and Gas Industry)

SUBMITTED: 25Jun62

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: CH,MA

NO REF SOV: 001

OTHER: 000

Card

16/gch
2/2

L 33538-65 EPA(s)-2/EWT(m)/EPF(c)/EPR/EWP(j)/T/EWA(c) Pc-l/Pr-l/Ps-l/Pt-10

RPJ NW/RM

ACCESSION NR: AT5006930

S/2982/64/000/051/0043/0047

AUTHOR: Paushkin, Ya. M.; Lunin, A. F.; Karpov, A. A.

45
44
B+

TITLE: Homopolycondensation of urea to polycyanamide

SOURCE: Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti. Trudy, no. 51, 1964. Neftekhimiya, neftekhimicheskiye protsessy i neftepererabotka (Petroleum chemistry, petrochemical processes and oil refining), 43-47

TOPIC TAGS: polycyanamide synthesis, urea polymerization, homopolycondensation reaction, zinc chloride catalyst

ABSTRACT: A semiconducting, thermally stable, polycyanamide was prepared from urea by the reaction



which proceeded in a single step during heating of urea at 300-500C with zinc chloride. Equimolar amounts of urea and ZnCl₂ gave optimum yields; the yield increased with reaction time and the viscosity of the polymers in sulfuric acid solution increased with

Card 1/2

L 33535-65

ACCESSION NR: AT5006930

condensation temperatures. The polymers were dark brown, non-fusible powders, soluble in formic or sulfuric acid but insoluble in organic solvents. The proposed structure was confirmed by determination of the amine number, by diazotization and volumetric determination of amino nitrogen, and by elemental and infrared analysis. EPR spectroscopy indicated the presence of delocalized electrons as expected. Orig. art. has: 4 figures, 1 table and 4 formulas.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti, Moscow (Petro-chemical and gas industry institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 004

OTHER: 002

Card 2/2

ACCESSION NR: A15006933

AUTHOR: Lunin, A. F.; Paushkin, Ya. M.; Aleksandrova, V. A.

TITLE: Heteropolycondensation of ammonium bicarbonate with acetaldehyde to form conjugated polymeric systems

SOURCE: Moscow, Institut neftekhimicheskoy i gazovoy promyshlennosti. Trudy, no. 51, 1964. Neftekhimiya, neftekhimicheskiye protsessy i neftepererabotka (Petroleum chemistry, petrochemical processes and oil refining), 60-65

TOPIC TAGS: organic semiconductor, semiconducting polymer, polycondensation, ammonium bicarbonate, acetaldehyde

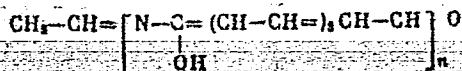
ABSTRACT: A study has shown the feasibility of polycondensation of ammonium bicarbonate with acetaldehyde. The aim was to prepare a copolymer having an irregular structure, which would not be poorly soluble in organic solvents, infusible, and stiff like polycyanic acid and the acetaldehyde homopolycondensation product, and therefore would not be difficult to process. Polycondensation was carried out in the presence of $ZnCl_2$ and in the absence of O_2 at 300—400C. The polymers, which were obtained in 19—38% yield, were dark-brown powders melting at 200—230C, soluble in most organic solvents including methanol, and precipitated by heptane and ethyl ether. A high-molecular-weight fraction was insoluble in organic solvents

Card 1/2

L 31340-65

ACCESSION NR: AT5006933

but readily soluble in concentrated sulfuric and formic acids. On the basis of elemental analysis and IR spectroscopy, the following structure was assigned to the polymers:



The polymers show a narrow EPR signal characteristic of conjugated polymers. Their electrical properties are being studied. Orig. art. has: 2 tables, 4 figures, and 6 formulas. [SM]

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti, Moscow (Institute of the Petrochemical and Gas Industry)

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 002

OTHER: 001

ATD PRESS: 3201

Card 2/2

ACCESSION NR: AP4032575

S/0190/64/906/004/0734/0736

AUTHOR: Paushkin, Ya. M.; Lunin, A. F.; Omarov, O. Yu.

TITLE: Polymers with conjugated bonds from ammonium carbonate or bicarbonate

SOURCE: Vy*sokomolek. soyedin., v. 6, no. 4, 1964, 734-736

TOPIC TAGS: organic semiconductor, semiconducting polymer, polycyanamide, poly(cyanic acid), semiconducting polymer preparation

ABSTRACT: Conjugated polymers—polycyanamide and poly(cyanic acid)

having the structures $\left[\begin{array}{c} \text{NH}_2 \\ | \\ -\text{C}=\text{N}- \end{array} \right]_n$ $\left[\begin{array}{c} \text{OH} \\ | \\ -\text{C}=\text{N}- \end{array} \right]_n$ —have been synthesized

at the Institute of the Petrochemical and Gas Industry imeni I. M. Gubkin. They were prepared in 10—50% yields by heating solid ammonium carbonate or bicarbonate with solid zinc chloride at 250—350°C in the absence of oxygen at 20—45 atm(abs) for 5—30 hr. The polymers are fine, crystalline, infusible, brown powders which decompose at above 600C. They are insoluble in organic solvents and partly soluble in

Card 1/2

ACCESSION NR: AP4032575

96—98% sulfuric acid and 85% formic acid. With increasing degrees of polymerization, they become completely insoluble. Their structures were confirmed by IR and EPR spectra and elemental analysis and, in the case of polycyanamide, also by NH_2 group determination. Orig. art. has: 6 formulas.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promy*shlennosti im. I. M. Gubkina (Institute of the petrochemical and gas industry)

SUBMITTED: 29May63

DATE ACQ: 11May64

ENCL: 00

SUB CODE: CH,PH

NO REF SOV: 002

OTHER: 001

Card 2/2

ACCESSION NR: AP4043785

S/0190/64/006/008/1467/1470

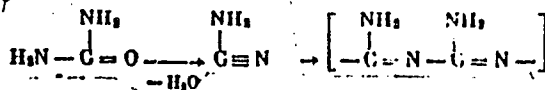
AUTHOR: Lunin, A. F.; Paushkin, Ya. M.

TITLE: Homopolycondensation of urea to polycyanamide — a nitrogen-containing polymer with conjugated double bonds

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 8, 1964, 1467-1470

TOPIC TAGS: polycyanamide, polycyanamide preparation, urea, zinc chloride, organic semiconductor, semiconducting polymer

ABSTRACT: A new preparative method for conjugated polymers containing heteroatoms in the backbone has been used to prepare polycyanamide. The presence of nitrogen atoms both in the conjugated backbone and in the side chain was expected to have a desirable effect on the electrical properties of the polymer. The method involves the newly discovered polycondensation of urea, which is assumed to proceed as follows:



Card 1/2y

ACCESSION NR: AP4043785

The polycondensation was carried out in the absence of oxygen by reacting zinc chloride catalyst with urea without solvent at 300-500C for 1-20 hr. The effect of temperature, time, and urea/ZnCl₂ ratio on polymer yield was determined. The polymers are dark brown infusible powders, with high thermal stability. The intrinsic viscosity in 96% H₂SO₄, amine number of the polymers, and the amount of nitrogen evolved on the decomposition of diazotized polycyanamide were determined and the structure confirmed by IR spectroscopy. The polymer gives an EPR signal. Orig. art. has: 1 table, 3 figures, and 2 formulas.

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. Gubkina (Moscow Institute of the Petrochemical and Gas Industry).

SUBMITTED: 28Sep63

ATD PRESS: 3092

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 006

OTHER: 002

Card 2/2

L 4579-66 EWT(m)/EPA(s)-2/EPF(c)/EWP(j)/T RM

ACC NR: AP5026987

SOURCE CODE: UR/0020/65/164/005/1065/1068

AUTHOR: Paushkin, Ya. M.; Polak, L. S.; Lunin, A. F.; Patalakh, I. I.

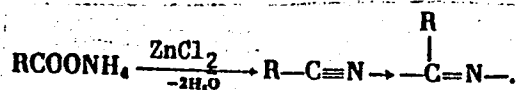
ORG: Moscow Institute of the Petrochemical and Gas Industry im. I. M. Gubkin (moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti); Institute of Petrochemical Synthesis im A. V. Topchiyev, Academy of Sciences, SSSR (Institut neftekhimicheskogo sinteza. Akademii nauk SSSR)

TITLE: New synthesis method for nitrogen-containing polymers with conjugated bonds and their electrical properties

SOURCE: AN SSSR. Doklady, v. 164, no. 5, 1965, 1065-1068

TOPIC TAGS: organic semiconductor, semiconducting polymer, polynitrile, polymerization, electric property

ABSTRACT: A new preparative method has been developed for polynitriles. The method involves the heating of amides or ammonium salts of mono- and di-basic organic acids with a dehydrating agent (ZnCl₂):



Card 1/3

UDC: 541.64.67

09010812

L 4579-66

ACC NR. AP5026987

The method makes it possible to prepare polynitriles without resorting to such scarce starting materials as hydrocyanic acid. The polynitriles shown in Table 1 were pre-

Table 1. Structure and electrical and physical properties of polymers

No.	Starting material	Polymer structure	Cryst.		IR spectrum		Thermo-stability
			Temp. (°C)	Time (min)	ν _{max} (cm ⁻¹)	ν _{min} (cm ⁻¹)	
1	CH ₂ CH=CH ₂		2.0*10 ⁴	0.5	2.2*10 ⁴	2.5	-2.0
2	CH ₂ CH=CH ₂		2.0*10 ⁴	0.5	2.2*10 ⁴	2.5	-2.0
3	HOCH ₂ CH ₂ OH		2.5*10 ⁴	0.5	2.8*10 ⁴	3.5	-2.0
4	HOCH ₂ CH ₂ OH		2.0*	0.5	2.2*10 ⁴	2.5	-
5	COOH		1.5*10 ⁴	0.5	1.8*10 ⁴	2.5	-
6	CH ₂ CH=CH ₂		1.5*10 ⁴	0.5	2.2*10 ⁴	2.5	-
7	CH ₂ CH=CH ₂		1.5*10 ⁴	0.5	2.2*10 ⁴	2.5	-
8	CH ₂ CH=CH ₂		2.0*10 ⁴	0.5	2.2*10 ⁴	2.5	-2.0
9	CH ₂ CH=CH ₂		2.0*	0.5	2.2*10 ⁴	2.5	-2.0

Card 2/3

* Prepared for the first time

L 4579-66

ACC NR: AP5026987

pared. The optimum preparative conditions were determined. The polymers were dark-brown to black, infusible and insoluble in the common solvents, and exhibiting high thermal stability. Weight losses at 800C were 7-12%. IR spectra and elemental analysis data of the polymers were identical to those of polynitriles prepared by polymerization of the nitriles, confirming the proposed reaction mechanism and structures. X-ray structural analysis indicated the high crystallinity of the polymers. Table 1 shows the electrical properties of the polymers measured for pressed pellet samples. A correlation was found between activation energy for conduction and chemical structure of polymer repeat unit. This correlation is interpreted in terms of probability of disruption of conjugation. Orig. art. has: 1 figure and 2 tables. [SM]

SUB CODE: OC, EN/ SUBM DATE: 16Mar65/ ORIG REF: 008/ OTH REF: 002/ ATD PRESS:

4136

Card 3/3 DP

ACC NR: AP7005630 (AN) SOURCE CODE: UR/0413/67/000/002/0087/0087

INVENTOR: Paushkin, Ya. M.; Omarov, O. Yu.; Mkrtychan, V. R.; Lunin, A. F.;
Liakumovich, A. G.; Michurov, Yu. I.; Golubovskaya, L. P.

ORG: none

TITLE: Method of preparing polyoxyphenylenes. Class 39, No. 190566

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 87

TOPIC TAGS: phenol, diatomic phenol, polyoxyphenylene, inert gas

ABSTRACT: This Author Certificate introduces a method of obtaining polyoxyphenylenes. To simplify the process of synthesis, the diatomic phenol is heated at 200—300 C in the presence of zinc chloride in an inert-gas atmosphere. [Translation of abstract] [NT]

SUB CODE: 11/SUBM DATE: 21Jul65/

Card 1/1

UDC: 678.644'14

LUNIN, B.

PA5/49T33

USSR/Geography
Soil Science

May/June 48

"I. V. Vyukhodtsev's 'Russian Explorers in Kirgiz Territory (Geography, Soil Studies, Botany),'"
B. Lunin, 1 p

"Iz v-s Geog Obshch" Vol LXXI, No 3

Lunin reviews subject article unfavorably. Considers treatment of subject short and superficial. ("Iz Kirgiz Fil Ak Nauk SSSR" No 2/3, 1945, pp 75-81)

5/49T33

LUNIN, B.A.

Emisaaries of Peter I in Central Asia and their role in studying
the geography of Tien Shan; summary. Uch.zap.Geog.fak.Kir.un.
no.1:108 '55. (MLRA 10:2)
(Soviet Central Asia--Discovery and exploration)

KARATOV, Mikhail Mikhaylovich, kand. geogr. nauk; LUNIN, B.A., red.;
KABIROV, I.V., tekhn. red.

[Frunze Province; brief sketch of its economic geography]
Frunzenskaia oblast'; kratkii ekonomiko-geograficheskii
oчерk. Frunze, Kirgizskoe gos. izd-vo, 1956. 157 p.

(MIRA 16:8)

(Frunze Province--Economic geography)

LUNIN, B.A.

Visit to the Tien Shan of an embassy of Peter the First
headed by Ivan Unkovskii. Izv.Vses.geog.ob-va 88 no.6:
546-549 N-D '56.

(MLRA 10:2)

(Asia, Central--Description and travel)

B. A. LUNIN (Kirghiz Univ.) and Yu. A. USMANOV (Bashkir Inst. of Agriculture)
V. D. BOBOK AND N. H. DZENS-LITOVSKAYA (Leningrad Univ.) K. G. RAMAN (Latvian
Univ.) V. A. DEMENT'YEV (Byelorussian Univ.), A. V. STUPISHIN (Kazan' Univ.)

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[The inner Tien Shan] Vnutrennii Tian'-Shan'. Pod red.
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(MIRA 14:4)

(Tien Shan--Physical geography)

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SOV/10-59-2-9/29

AUTHOR: Lunin B.A.

TITLE: On the Origin and the Use of the Geographical Designation Tyan'-Shan'.

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1959, Nr 2, pp 77-79 (USSR)

ABSTRACT: The author gives a short historical survey of the various designations of the mountain system now known under the name "Tyan'-Shan'" and concludes that, as in the old Chinese literature, the borders of this system still cannot be called stable. The name "T'yan'-Shan'" is of Chinese origin and means "Heavenly Mountains". There are 9 Soviet references.

ASSOCIATION: Kirgizskiy gosudarstvennyy universitet (Kirgiz State University) Kafedra fizicheskoy geografii (Chair of Physical Geography)

Card 1/1

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1. Geograficheskoye obshchestvo SSSR. Kirgizskiy filial.
2. Zaveduyushchiy Otdelom geografii AN Kirgizskoy SSR, predsedatel' Kirgizskogo filiala Geograficheskogo obshchestva SSSR (for Otorbayev).
3. Dekan geograficheskogo fakul'teta Kirgizskogo gosudarstvennogo universiteta (for Umurzakov).
4. Zamestitel' direktora instituta geologii AN Kirgizskoy SSR (for Korolev).
5. Rukovoditel' sektora geomorfologii Otdela geografii AN Kirgizskoy SSR (for Isayev).
6. Chlen-korrespondent, zaveduyushchiy sektorom Instituta geologii AN Kirgizskoy SSR (for Kashirin).

(Continued on next card)

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7. Direktor Tyan-Shan'skoy vysokogornoy fiziko-geograficheskoy stantsii Otdela geografii AN Kirgizskoy SSR (for Zabiroy).
8. Otdel geografii AN Kirgizskoy SSR (for Ryazantseva). 9. Chlen-korrespondent, direktor Instituta energetiki i vodnogo khozyaystva AN Kirgizskoy SSR (for Bol'shakov). 10. Zaveduyushchiy Otdelom pochvovedeniya AN Kirgizskoy SSR (for Mamytov). 11. Chlen-korrespondent, vitseprezident AN Kirgizskoy SSR (for Yanushevich).
12. Zaveduyushchiy kafedroy fizicheskoy geografii Kirgizskogo gosudarstvennogo universiteta (for Lunin).
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