

SECRET

S OCS 50 001 005 005 005
1125 1027

Research on the Oxidation of High-Purity Silicon for Semiconductors. Part 2.
Production of Boron-Free Silicon from Silicon Trichloride and Lithium-Aluminum Hydride

from SiCl_4 in successive phases as follows: 1) Preparation of lithium. According to Refs. 10 and 11, lithium metal can be prepared by reduction of the lithium salt by vacuum metallurgy and by electrolysis of the molten salt. The second method is more advantageous. Lithium chloride was obtained by treating Li_2CO_3 with HCl . 2) Preparation of lithium hydride. According to Refs. 12 and 13, LiH can be obtained by direct hydrogenation of molten lithium at temperatures ranging from 400 - 700°C. Novak (Ref. 13) prepared lithium by hydrogenating lithium amalgam. Another procedure (Ref. 14) consists in the reduction of LiCl with Mg. The authors used the hydrogenation of lithium. 3) Preparation of lithium-aluminum hydride. $\text{Li}[\text{AlH}_4]$ studied by Schlegel and Fuchs (Ref. 15) can be prepared by reaction of LiH and AlCl_3 or of LiH and AlBr_3 in etheric solution. Although the second method proved to be more advantageous, AlCl_3 was used for the industrial production of $\text{Li}[\text{AlH}_4]$ because AlBr_3 is less available. Silane was produced by introducing SiCl_4 into an etheric solution of $\text{Li}[\text{AlH}_4]$, reacting in excess of 10% against SiCl_4 . The decomposed SiCl_4 is passed through filtering devices into the decomposing chamber, where it is deposited on a 200 mm long 2 mm

Card 2/3

85087

R 008 50/011/008/008/008
A125/A026

Research on the Production of High-Purity Silicon for Semiconductors. Report I.
Production of Boron-Free Silicon Rods from Silicon Tetrachloride and Lithium-Alumi-
num Hydride

in diameter tube-shaped tantalum wire, having a wall thickness of 0.45 mm, and heated to a temperature of 1,000°C. Thus, a homogeneous deposition of an 8 mm in diameter and 170 mm long rod-shaped silicon, was obtained. Traces of Cu, Mg and Al were detected in the silicon. Out of 145 gr of $SiCl_4$ a total of 22.5 gr of silicon with an efficiency of 94% were obtained. This silicon then has to be processed, in order to obtain a monocrystal. There are 2 figures and 18 references: 6 Soviet, 1 Rumanian, 1 Czechoslovak, 7 English, 2 German and 1 French. Subject article is based on a paper presented at the Meeting "Semiconductoare și aplicațiile lor". (Semiconductors and Their Application) on December 9 to 11, 1959.

Card 3/3

44308

S/058/62/000/012/046/048
A062/A101

18 9500

AUTHORS: Rittenberg, V., Roman, P., Didiv, B.

TITLE: A simple method of preventing "whisker" formation in growth of silicon single crystals in vacuo

PERIODICAL: Referativnyy zhurnal, Fizika, no. 12, 1962, 6, abstract 12-4-115h ("Studii și cercetări metalurgie Acad. RPR", 1962, 7, no. 1, 115 - 116, Rumanian)

TEXT: Formation of "whiskers" occurs in the zone melting process in vacuo as a result of the intensive evaporation of Si from the melted zone and of the formation of a residue deposit on the inner surface of the quartz tube. When displacing the molten zone, the residue layer is cooled and contracted, which results in the detaching of whiskers from the layer. The whiskers, torn away, fall onto the sample which is being cleaned. As far as the admixtures evaporate first, the whiskers constitute a source contaminating the single crystal; moreover, they form on the boundary between the solid and liquid phases, crystallization centers that are obstacles to the growth of single crystals. To avoid these

Card 1/2

A simple method of preventing...

S/058/62/000/012/026/028
A062/A101

phenomena, it is necessary to grind the inner surface of the quartz tube with carborundum; this ensures a strong cohesion of the layer, formed during evaporation, with the glass. There is 1 reference. *J*

N. S.

[Abstracter's note: Complete translation]

Card 2/2

45761

S/194/62/000/012/050/101
D271/D308

189500

AUTHORS: Rittenberg, V., Roman, P. and Didiv, B.

TITLE: A simple method for preventing whisker formation when growing silicon single crystals in vacuum

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 6, abstract 12-4-11 sh (Studii si cerce-tari metalurgie Acad. RPR, v. 7, 1962, no. 12 115-116 (Rum.))

TEXT: Whisker formations arise during zone melting in vacuum as a result of intensive evaporation of Si in the molten zone and its settling on the inner surface of the quartz tube. As the molten zone moves, the settled layer is cooled and compressed, leading to whisker separation from the layer. The whiskers tear off and fall on the purified specimen. As impurities are the first to evaporate, whiskers become a source of impurity in the single crystal: they also become crystallization centers on the boundary between solid and liquid phases, and disturb the growth of single crystals. In

Card 1/2

A simple method for ...

S/194/62/000/012/050/101
D271/D308

order to avoid these effects it is necessary to polish with carborundum the inner surface of the quartz tube, thus ensuring firm adhesion to the glass of the layer formed through evaporation. ✓

[Abstracter's note: Complete translation.]

Card 2/2

R/003/62/013/011/002/002
D272/D307

AUTHORS: Roman, P., and Nicolau, Pl.

TITLE: The preparation of high purity silicon bars by the reduction of trichlorosilane with hydrogen

PERIODICAL: Revista de Chimie, no. 11, 1962, 653-660

TEXT: Results are presented of a study of the reduction of trichlorosilane with hydrogen, carried out at the Institutul de cercetari electrotehnice (Electrotechnical Research Institute) in 1960-1961. HSiCl_3 was prepared by the method described earlier (Nicolau, Pl. this journal, no. 8, 1960, 463), and was then purified by distillation on a Cu-packed, 33 theoretical plates column to eliminate SiH_4 , metallic impurities, and any S compounds, and was further distilled on a Mo-packed, 10 theoretical plates quartz column. Final purification was by adsorption in an alumina-packed column. Hydrogen was purified by expansion from 125 to 0.2 - 0.5 atm, mist elimination, oxidation and retention of organic and reducing matter in $\text{K}_2\text{Cr}_2\text{O}_7$, CO_2 -elimination with NaOH , drying with CaCl_2 , retention of O on Cu depo-
Gard 1/2

The preparation of high purity ...

R/003/62/013/011/002/002
D272/D307

sited on diatomite and palladized asbestos, passing through a trap with active carbon or silica gel cooled with solid CO_2 acetone, elimination of N_2 in Hg-CaO (1:1), passing through a second trap, and a second mist eliminator. The HSiCl_3 was entrained by part of the H_2 and was then reduced in a special unit upon a thin Ta filament, obtaining at $\text{H}_2/\text{HSiCl}_3$, 60:1 and 1150°C a yield of 47% polycrystalline Si, at a productivity of 8 g Si/hr. Si enveloping the Ta filament thickened to 8-14 mm in diameter as a function of the time of reaction, and the current for heating the filament increased from 50 to 120 a and the voltage from 35 to 50 v. After 12-20 hours bars 300-400 mm in length were obtained. Increasing the $\text{H}_2/\text{HSiCl}_3$ ratio increased the productivity but reduced the yield of Si. The Ta filament was dissolved rapidly in 40% HF and after a sequence of washings the bar was submitted to floating zone purification, when the p-type polycrystalline Si changed into p-type monocrystals, with 50-100 ohm cm resistivity (portions with max. 350 ohm cm were obtained). There are 15 figures and 3 tables.

SUBMITTED: December 30, 1961

Card 2/2

DIDIV, B.; RITTENBERG, V.; ROMAN, P.

Distribution of impurities in an ingot of semiconducting materials, starting from an alloyed tablet through repeated zone melting and with application to the alloying of silicon. Studii cerc metalurgie 7 no.1:63-72 '62.

RITTEMBERG, V.; DIDIV, B.; ROMAN, P.

Dislocation and macles in silicon monocrystals obtained
by zone melting. Studii cerc metalurgie 7 no.1:51-61
'62.

RITTENBERG, V.; ROMAN, P.; DIDIV, B.

A simple method for avoiding awn deposits at the increase
of silicon monocrystals in vacuum. Studii cerc metallurgie
7 no.1:115-116 '62.

ROMAN, P.

Bukharin's Study of Structural Transformation, Vol VII, No 1, 1962

1. "The Thermodynamic Transformation of Iron into the Form of the Ferrite of Steels," Oxidn Sidera and Metallurgiya, pp 7-12.
2. "Conducting Alloys with a Transition State for Thermoelectric Refrigeration," Metallurgiya and Niobiy Plazma, pp 3-19.
3. "Interaction and State in Silicon Monocrystals Obtained by the Method of Zone Melting," V. RITLBERG, S. DIDIV and P. ROMAN, pp 51-54.
4. "Study on the Distribution of Impurities in an Ingot of Technological Material Starting from an enriched ferrite silicon metal and zone melting with impurities of silicon monocrystals," S. DIDIV, V. RITLBERG and P. ROMAN, pp 53-72.
5. "Considerations on the Content of Gases and Non-metallic Inclusions in Indispensable for Pie Iron," L. SOREKVI, G. GOSLAVI, L. VIKTORI and S. PRIGIT, pp 72-81.
6. "Experimental Studies on the Influence of the Deformation Intensity on the Mechanical Properties of Certain Types of Thin Laminated Sheets at High Temperatures," A. SISCHID and I. SAGOR, pp 93-101.
7. "Contributions to the Elaboration of Thermoelectric Devices in Agricultural Technology," Alexander DUBS, Levin DUBS and Aleksis PAVLAVI, pp 101-113.
8. "Single Method to Avoid the Deposit of 'Karatshen' during the Growth of Silicon Monocrystals in Vacuum," V. RITLBERG, P. ROMAN and S. DIDIV, pp 115-116.

22
217

ROMAN, P.

Bushnetz, Studia et Experimenta de Metallurgia, No 1, 1952.

1. "On the Metallographic Transformations of Iron in the State of Solidity," Oxidation of Iron and Steel, pp 7-12.
2. "Semiconducting Alloys with a Tellurium Base for Thermoelectric Refrigerators," Metallurgiya and Vysokaya Temperatura, No 1, 1959.
3. "Dislocations and Vacancies in Silicon Monocrystals Obtained by the Method of Special Melting," Vysokaya Temperatura and Vysokaya Energia, pp 51-52.
4. "Study on the Displacement of Impurities in an Iron of Semiconducting Material Starting from an annealed State," Metallurgiya, Metallurgiya, Vysokaya Temperatura and Vysokaya Energia, pp 51-52.
5. "Considerations on the Content of Gases and Non-metallic Inclusions in Indispensable Pure Iron," Vysokaya Temperatura, Vysokaya Energia and Vysokaya Energia, pp 73-87.
6. "Experimental Studies on the Influence of the Deformation Intensity on the Mechanical Properties of Certain Types of Thin Layered Sheets at High Temperatures," Vysokaya Temperatura and Vysokaya Energia, pp 89-101.
7. "Contributions to the Elaboration of Magnetic Powder Devices in Agricultural Technology," Vysokaya Temperatura, Vysokaya Energia and Vysokaya Energia, pp 103-113.
8. "Single Vapors and the Deposit of 'Whiskers' during the Growth of Silicon Monocrystals in Vacuum," Vysokaya Temperatura, Vysokaya Energia and Vysokaya Energia, pp 115-116.

22
217

ROMAN, P.

Publinter: Studia et Documenta de Veterinaria, Vol VII, No 1, 1962

1. "The 'Anaphrotherpic' Transformations of Iron II to Some of the Properties of Iron II Oxide and Iron Oxide", pp 7-12.
2. "Semi-conducting Alloys with Gallium Base for Thermoelectric Refrigeration", Material Research and Applications, pp 3-9.
3. "Oxidation and Anneal in Silicon Monocrystals Obtained by the Method of Zonal Melting", V. RITTSBERG, S. DIDY and P. ROMAN; pp 51-61.
4. "Study on the Distribution of Impurities in an Ingot of Semi-conducting Material Starting from an enriched Particle through Reverse Zonal Melting with Applications to Silicon Enrichment", S. DIDY, V. RITTSBERG and P. ROMAN; pp 63-72.
5. "Considerations on the Content of Gases and Compressible Inclusions in Ingots from the Point of View of the Quality of the Material", L. SOARE, G. COMANARU, E. NIGOLIU and S. PRUDENIU; pp 73-81.
6. "Experimental Studies on the Influence of the Duration of Time Lagged Shocks at High Temperatures, at 1500°C and 1.2000°C", pp 93-101.
7. "Contributions to the Absorption of Magnetic Powders Based on Agricultural Technology", Asesul de Cercetari, Lavin BOBNA and Aralia PATRIVICI; pp 103-113.
8. "Simple Method to Analyze the Decoat of 'Nucleated' during the Growth of Silicon Monocrystals in Vacuum", V. RITTSBERG, P. ROMAN and S. DIDY; pp 115-116.

32
327

CS: 2000

ROMAN, P.; POPESCU, I.

Improved methods in the exploitation of coal deposits in the Jiu River valley.
p. 445.

REVISTA MINELOR. (Ministerul Minelor, Ministerul Industriei Petrolului si
Chimiei, Directia Exploatarilor Miniere si Asociatia Stiintifica a Inginerilor
si Tehnicienilor din Romania) Bucuresti, Rumania. Vol. 10, no. 11, Nov. 1959

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

uncl.

69348

R/003/60/011/04/033/041
D0015/D3001

5(2)

5.2400

AUTHORS: Cruceanu, E., and Roman, F.

TITLE: Spectral Titration of Some Impurities in Silicon for Semiconductors

PERIODICAL: Revista de Chimie, 1960, Vol 11, Nr 4, p 240

ABSTRACT: The article contains a communication presented to the meeting on "Methods of Analysis for the Titration of Rare and Dispersed Elements", held by the Comisia de Chimie Analitică a Secției de Chimie din Consiliul Central ASIT (Analytical Chemistry Commission of the Chemistry Section at the ASIT Central Council) from 21-22 December 1959. The paper deals with a method of determining the Mg, Al, Cu, Zn and Fe elements which appear as impurities in silicon for semiconductor equipment. The author explains a) the preparation of pure spectral strontium sulfate; b) the preparation of test samples; and c) the spectral determination of impurities, with an "IPS-28" spectro-

Card 1/2

69348

R/003/60/011/04/033/041

D0015/D3001

Spectral Titration of Some Impurities in Silicon for Semiconductors

meter. The margin of detection of impurities was, upon completion of recalculation, $10^{-2}\%$. The process may be applied to any element emitting characteristic visible or ultraviolet lines.

Card 2/2

X

BUKHARA, N. I., KUMAR, S. A.

Role of vision and musculocutaneous sense in the reproduction of passive movements (flexion of the arm in the elbow joint). Zhurn. vys. nerv. deiat. 14 no. 6:953-956 N-D '64.

(MIRA 1035)

1. Chair of Physiology, Central Institute of Physical Training, Moscow.

ROMAN, N.; ROMAN, St.

Fagus orientalis Lipsky and *Fagus taurica* Popl., and their distribution in Rumania. *Studii cerc biol veget* 14 no. 1:29-32 '62.

1. Comunicare prezentata de C. C. Georgescu, membru corespondent al Academiei R.P.R.

ROMAN, St.; ROMAN, N.

Glinus lotoides L., a new plant in the flora of Rumania. Comunicarile
AR II no.11:1339-1342 N '61.

1. Comunicare prezentata de C. C. Georgescu, membru corespondent al
Academiei R.P.R.

ROMAN, Stere

Problems of production in debating groups. Constr Buc 15 no.728:4
21 D '63.

1. Secretarul comitetului sindicatului Intreprinderii de
instalatii-montaj-izolatii a D.G.C.M., Bucuresti.

SPINU, I.; BALDOVIN-AGAPI, Coralia; BIRZU, I.; MIHALCO, Florica; ROMAN, V.
ROMAN, Stela; BORSAI, Leia; TOMESCO, Elena; KY, Tran

Distribution, according to phage groups and antibiotic sensitivity,
of pathogenic strains of staphylococci isolated in North Vietnam.
Arch. roum. path. exp. microbiol 21 no.1:143-153 Mr '62.

1: Travail du Ministere de la Sante et des Prevoyances Sociales,
Direction Generale Sanitaire Antiepidemique, de l'Institut, "Dr.
I. Cantacuzino" -Service des Cocci Pathogenes et de l'Institut de
Microbiologie de Hanoi.

(STAPHYLOCOCCUS) (ANTIBIOTICS) (DRUG RESISTANCE, MICROBIAL)

ROMAN, Tiberiu

Sixth International Mathematics Olympiad. Gaz mat B 16 no.3:
100-103 Mr '65.

Solutions of the problems proposed at the Sixth International
Mathematics Olympiad, 1964. Ibid.:103-111

ROMAN I., biolog; ROMAN, Liliana, biolog; CONSTANTINESCU, O., ing. chim.
CONSTANTINESCU, Emilia, ing. chim.

Research on the factors determining reed growth and development.
Gel hirtie 13 no.11/12:393-399 N-D '64.

ROMAN, Tiberiu

Conference on the Applications of Mathematics in the Economy.
Gaz mat fiz 70 no.2:67-70 F '65.

ROMAN, T., conf. univ. (Bucuresti)

Groups of symmetry of bicolored frames in relief. Gaz mat fiz
15 no.3:120-133 Mr '63.

ROMAN, Tadeusz

Influence of the level of beheading on the quality and quantity of
the hybrid Machorka Pomorska X Selvaggio. Rocznik roln. 86
no. 2: 379-389 1962.

ROMAN, Tadeusz

Influence of the time of planting on the quantity and quality of
the hybrid Machorka Pomorska X Selvaggio. Rocznik nauki rolniczej 36
no.2:391-401 '62.

ROMAN, Tiberiu, conf. univ.

On the occasion of the hundredth anniversary of the Union of
Czechoslovak Mathematicians and Physicists. Gaz mat fiz 14 no.10:
557-559 0 '62.

ROMAN, Tiberyu (Bukharest, Rumyniya)

Symmetry of border ornaments in $n + 1$ -dimensional space. Dokl.
AN SSSR 147 no.5:1038-1041 D '62. (MIRA 16:2)

1. Predstavleno akademikom A.V. Shubnikovym.
(Groups, Theory of) (Aggregates)

ROMAN, T., biolog; ROMAN, L., biolog

Contributions to the knowledge of cryptogamic diseases of reed and their effect on the plant development. Cel hirtie 13 no.10: 353-358 0 '64.

ROMAN, V.

(6)

RUMANIA

Prof Gh. LUPASCU, Dr Aspasia BOSSIE-AGAVRILOAEI, Dr M. SMOLINEKI, Dr Eugenia NEGULICI-BALLIF, Dr Piereta CONSTANTINESCU, Biologist Tr. ISFAN, Dr D. PETREA, Dr V. MAZILU and Dr V. ROMAN; Institute "Dr. I. Cantacuzino," Laboratory of Malaria and Pathogenic Protozoa (Laboratorul de malarie si protozoare patogene) Center of Sanitation of Paludism (Centrul de impaludare terapeutica) "Berceni", Hospital (Spitalul) "Gh. Marinescu" and Malaria Stations (Statii de malarie.)

"The Problem of Quartan Malaria and the Malaria Eradication Program."

Bucharest, Microbiologia, Parazitologia, Epidemiologia, Vol 8, No 2, Mar-Apr 63; pp 99-112.

Abstract [English summary modified]: Quartan malaria seems especially difficult to eradicate due to spontaneous recurrence of ancient infection and cases where parasitemia is so slight as to be virtually undiagnosable, causing transmission via transfused blood. In 1949, 215 of 50,000 (0.4%) cases were quartan; 1960-1962, 71 of 1341. Graph, 2 tables; 3 case reports; 11 Rumanian, 3 Soviet, 12 Western references.

1/1

RUMANIA

010.704-00117

SPINU, I., Lect, BIBERI-MOROIANU, Sanda, Dr, POPA, S., Dr, and ROMAN, V., Dr. Work performed at the Central State Health Inspectorate (Inspectoratul Sanitar de Stat Central) of the Ministry of Health and Social Welfare (Ministerul Sanatatii si Prevederilor Sociale).

"Considerations Concerning the Program for the Eradication of Diphtheria in the Socialist Republic of Rumania."

Bucharest, Microbiologia, Parazitologia, Epidemiologia, Vol 11, No 4, Jul-Aug 66, pp 289-300.

Abstract [Authors' English summary modified]: The authors present the concept on which Rumania's diphtheria control program was based and summarize the main measures taken and results obtained. The campaign was based on an interruption of the pathogenetic process rather than elimination of the pathogenetic microorganism; it involved primary immunization followed by 4 to 5 re-immunizations of the entire population below 18 years of age, and systematic control of the immunity obtained by means of the Schick test.

Includes 2 tables and 3 figures.

1/1

- 12 -

SPINU, I.; BALDOVIN-AGAPI, Coralia; BIRZU, I.; MIHALCO, Florica; ROMAN, V.
ROMAN, Stela; BORSAL, Leia; TOMESCO, Elena; KY, Tran

Distribution, according to phage groups and antibiotic sensitivity,
of pathogenic strains of staphylococci isolated in North Vietnam.
Arch. roum. path. exp. microbiol 21 no.1:143-153 Mr '62.

1. Travail du Ministere de la Sante et des Prevoyances Sociales,
Direction Generale Sanitaire Antiepidemique, de l'Institut, "Dr.
I. Cantacuzino" -Service des Cocci Pathogenes et de l'Institut de
Microbiologie de Hanoi.

(STAPHYLOCOCCUS) (ANTIBIOTICS) (DRUG RESISTANCE, MICROBIAL)

L 33714-66

ACC NR: AF6025153

SOURCE CODE: RU/0012/65/061/004/0567/0572

AUTHOR: Floschin, D. (Doctor; Colonel; Candidate of medical sciences); Marinescu, A.
(Doctor; Lieutenant colonel); Roman, V. (Doctor; Major)

ORG: none

TITLE: Treatment of arterial wounds in times of peace and under conditions of battle

SOURCE: Revista sanitara militara, v. 61, no. 4, 1965, 567-572

TOPIC TAGS: wound, circulatory system, military medicine

ABSTRACT: A survey of the various types of arterial wounds occurring in peacetime and under battle conditions. For each type of injury the discussion includes a brief literature survey, treatment advised, and a discussion of the authors' experiences, occasionally accompanied by case histories. [JPRS: 33,500]

SUB CODE: 06 / SUBM DATE: 22Jan65 / ORIG REF: 003 / OTH REF: 004

Card 1/1 PB

0976

0502

Waller, Walter

Industrial revolution in Rumania. Probleme econ 17 no.5:88-114
May '64.

IVAN, I. M.; SOLOMON, I.; TELNICEANU, A.; GHELASE, Maria; ROMAN, V.

Dynamics of the antipoliomyelitic seroneutralizing antibodies in children vaccinated with the attenuated live vaccine. Studii cerc inframicrobiol 12 no.4:467-473 '61.

I. Sanepidul central al Capitalei si Catedra de epidemiologie I.M.P., Bucuresti.

+

LUPASCU, Gh., prof.; BOSSIE-AGAVRILOAEI, Aspasia, dr.; SMOLINSKI, M.,
dr.; NEGULICI-BALLIF, Eugenia, dr.; CONSTANTINESCU, Piereta, dr.;
ISFAN, Tr., biolog.; PETREA, D., dr.; MAZILIU, V., dr.; ROMAN, V.,
dr.

The problem of quartan malaria and malaria eradication programs.
Microbiologia 8 no.2:99-112 Mr-Apr '63.

1. Lucrare efectuata in Institutul "Dr.I.Cantacuzino" Laboratorul
de malarie si protozoare patogene si Central de impaludare terapeutica
"Berceni", Spitalul "Ch.Marinescu", in colaborare cu Statile de
malarie.

ROMAN, V.

Problems connected with the finishing of fabrics from cellulose staple fibers. p. 102

INDUSTRIA TEXTILA. (Asociatia Stiintifica a Inginerilor si Technicienilor din
Romina si Ministerul Industriei Udostre) Bucuresti, Rumania. Vol. 10, no. 3,
Mar. 1959.

Monthly Lists of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959.

Uncl.

NIKOLAYEV, A. V.; TORGOV, V. G.; ROMAN, V. K.; MIKHAYLOV, V. A.;
KOTLYAREVSKIY, I. L.

Synthesis and study of compounds formed by uranyl salts with
pyridine oxide derivatives. Radiokhimiya 4 no.3:296-304 '62.
(MIRA 15:10)

(Uranyl compounds) (Pyridine)

ACCESSION NR: AP4019017

S/0062/64/000/002/0382/0384

AUTHORS: Shostakovskiy, M.F.; Komarova, L.I.; Pukhnarevich, V.B.;
Komarov, N.V.; Roman, V.K.

TITLE: 3,5-dinitrobenzoylhydrazones of organo silicon carbonyl compounds

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 382-384

TOPIC TAGS: dinitrobenzoyl hydrazone, dinitrobenzoyl hydrazide,
organo silicon carbonyl reagent, hydrozone, carbonyl

ABSTRACT: In the search for a reagent able to identify organo silicon carbonyl compounds, the authors found that 3,5-dinitrobenzoylhydrazide readily forms good crystallizing 3,5-dinitrobenzoylhydrazones with organo silicon aldehydes and ketones. In this respect, the reagent is different from 2,4-dinitrophenylhydrazine, semi-carbazide and hydroxylamine. The tendency of organo silicon aldehydes and ketones to form these compounds and yields greatly depends on their structure. Thirteen compounds were investigated from this point of view and their behavior recorded in a comprehen-

Card: 1/2

ACCESSION NR: AP4019017

sive table. The analytical method consists in dissolving approximately 0,001 M 3,5-dinitrobenzoylhydrazide in 10 ml ethanol, adding to it 0.0015 M silicoorganic carbonyl compound. The mixture is heated for half an hour to 50-60C and left standing to crystallize. Hydrazones so obtained are recrystallized from ethanol. They are white crystalline substances with a definite melting point and melt without decomposing. Orig. art. has: 3 formulas, 1 table.

ASSOCIATION: Irkutskiy institut organicheskoy khimii, AN SSSR
(Irkutsk Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 05Aug63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: 00

NR REF SOV: 001

OTHER: 000

Card. 2/2

The reg: EXCERPTA MEDICA Sec 9/Vol 13/5 SURGERY May 59 . is. with

2419. THE DISADVANTAGEOUS PROPERTY OF PENICILLIN IN SURGICAL POLICY (Russian text) - Roman L. I. and Yuhimets A. D. - VESTN. KHIR. 1958, 80/4 (89-95)

A bacteriological study of pus from 174 patients, using platiculture with standard paper discs, revealed a penicillin-resistant bacterial flora in 83.1% of patients. In 87 suppurations a staphylococcus growth was present, which proved resistant to penicillin in 73.4% of cases.

(IX, 50)

ROMAN, L.I.

Therapeutic drug-induced sleep in urological practice.

Nov.khir.arkh. no.1:72 Ja-F '58

(MIRA 11:11)

1. Kafedra khirurgii Chernovitskogo meditsinskogo instituta.
(SLEEP--THERAPEUTIC USE)
(URINARY ORGANS--DISEASES)

ROMAN, L.I., dotsent, YUKHIMETS, A.D., assistant

Hazards of use of penicillin in surgical practice [with summary
in English]. Vest.khir. 80 no.4:89-95 Ap'58 (MIRA 11:5)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - dotsent
D.K. Grechishkin) Chernovitskogo meditsinskogo instituta. Adres
avtorov: Chernovtsy, Teatral'naya ul., d.2, meditsinskiy institut.
(PENICILLIN, inj.eff.
masking of dis. in surg. (Rus))

Roman, L.I.
ROMAN, L.I., dotsent; SHINKERMAN, N.M., dotsent

Modern methods of treating male genital tuberculosis with special reference to morphological reactions in streptomycin therapy.
Urologiia 22 no.2:21-24 Mr-Apr '57. (MLRA 10:7)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. Ye.R.TSitritskiy) i kafedry patologicheskoy anatomii (zav. - dotsent N.M.Shinkerman) Chernovitskogo meditsinskogo instituta (dir. - dotsent M.M.Kovalev).
(TUBERCULOSIS, MALE GENITAL, ther. streptomycin)
(STREPTOMYCIN, ther. use tuberc., male genital)

BARDYSHEV, I.I.; ROMAN, L.V.

Investigation of the composition of turpentine and properties of
rosin from the resin of the pine (Pinus pithyusa var-Stankewiczii
Suk., Pinus stankewiczii Fon.). Zhur.prikl.khim. 31 no.11:1762-1765
N '58. (MIRA 12:2)

1. Belorusskiy lesotekhnicheskii institut imeni S.M. Kirova.
(Gum and resins) (Turpentine)

ROMAN MAREK

POLAND / Chemical Technology. Chemical Products H-5
and Their Application. Water treatment. Sewage
water

Abs Jour : Ref. Zhur. - Khimiya, No 2, 1958, No 5068

Author : Glinicki Zdzislaw, Roman Marek, Zakrzewski
Janusz

Inst : Not Given

Title : Effect of Water Purification by the Method
of Contact Coagulation

Orig Pub : Gaz, woda, techn. sanit., 1956, 30, No 8,
305-309

Abstract : The theoretical foundations of contact coagu-
lation are considered. An account is given of
the results of experiments, carried out in an

Card : 1/2

Abstract : experimental unit, on treatment of ground
water containing up to 1.15 mg/liter of Fe
(without coagulant and using $Al(SO_4)_3$). On

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445210012-1
Contact coagulation a better effect was achieved
than on bulk coagulation.

Card : 2/2

Author : Glinicki
Janusz

Inst : Not Given

Title : Participation of Individual Layers of the
Filter in the Process of Water Purification
by the Method of Contact Coagulation

Orig Pub : Gaz, woda, techn. sanit., 1956, 30, No 9,
335-339

Abstract : In developing previously performed work (see
preceding abstract) a study was made of the

ROMAN, M.; PIOTROWSKI, I.; GLINICKI, Z.

Application of the Rettger overflow to grit chambers. p. 43.

GAZ, WODA I TECHNIKA SANITARNA. (Stowarzyszenie Naukowo-Techniczne Inżynierów i Techników Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland.
Vol. 33, no. 2, Feb. 1959.

Monthly list of East European Accessions Index (EEAI), LC, Vol. 8, no. 6,
June 1959
uncla.

ROMAN, M.; GLINICKI, Z.

The effect of the water flow on the efficiency of a horizontal drainage system installed under a river bed. p. 230

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland.
Vol. 33, no. 5, June 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 9, September 1959
Uncl.

ROMAN, M.; ZAKRZEŃSKI, J.; GLINICKI, Z.

Role of individual filter layers in the process of water purification using the surface coagulation method. p. 335.
(GAZ, WOD: I TECHNIKA SANITARNA. Warszawa, Vol. 30, no. 9, Sept. 1956)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

ROMAN, MAREK

✓ Effect of purification of water by the method of surface
coagulation. Zdzisław Clinicki, Marek Roman, and Janusz
Zakrzewski (Politechnika, Warsaw). Gaz. Woda i Tech.
Sanit. 30, 305-9(1956).—Purification of water by surface
coagulation is as effective as coagulation in bulk or ordi-
nary filtration on rapid filters. A. Kępczewski

Handwritten initials and a circled number 3

ROMAN, MAREK.

Share of individual filter layers in the water-purification process by the surface-coagulation method. Zdzislaw Glinicki, Marek Roman, and Janusz Zakrzewski (Politechnika, Warsaw). *Gaz, Woda i Tech. Sanit.* 30, 335-9 (1956).—Lab. investigations have been made on the purification of water by surface coagulation. The results obtained confirm in general the theory of D. M. Mine (Sb. *Sanitarnaja Tichnika, Moscow, 1954*). A. Kręglewski

3

ROMAN, Modic

2

Chem abs 148

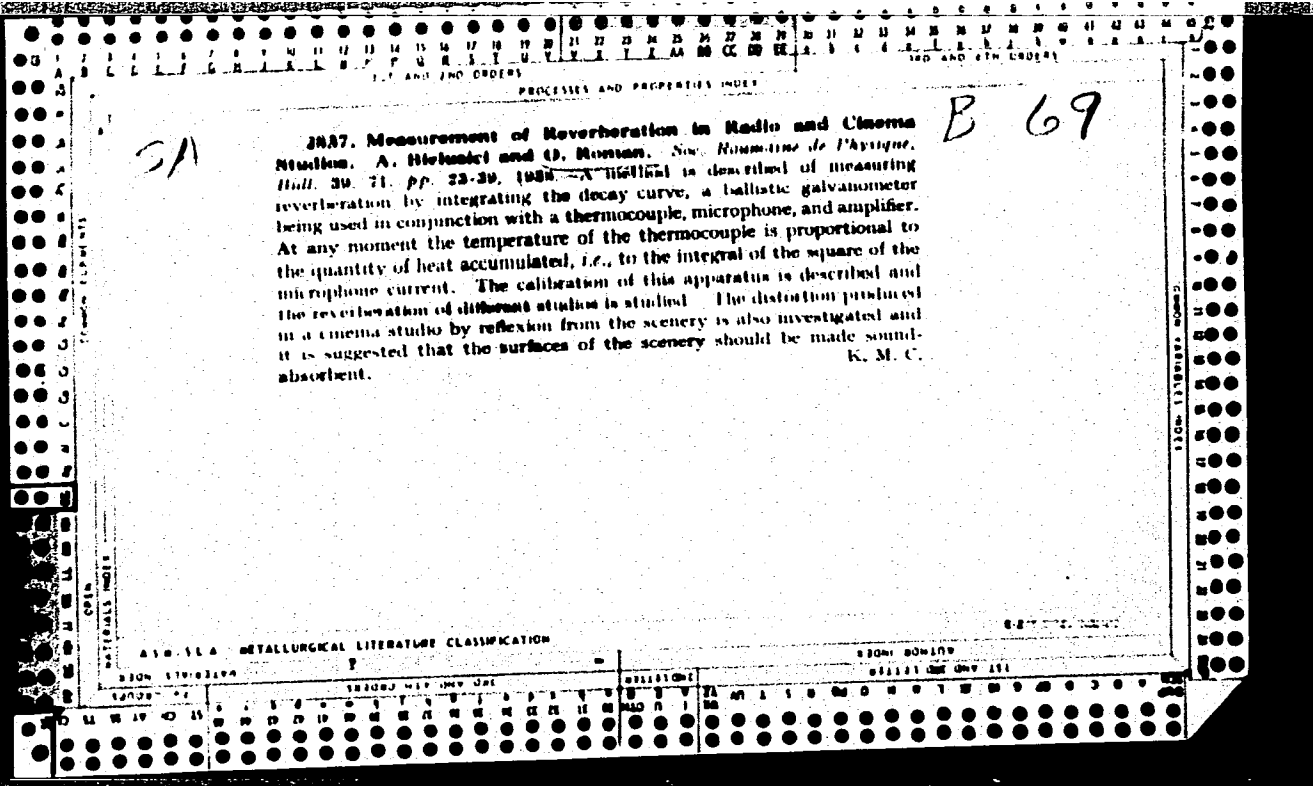
1-25-54

Miscellaneous

Industrial Products

✓ Some problems of the chemical industry in Slovenia.
Roman Modic. *Nota Proizvodnja* 3, 180-2(1952)

Router Leah 10-8-54
mf



ROMAN, L.I., dotsent

Prolonged intravenous drip infusions in the postoperative period. Khirurgiia no.7:42-46 J1 '55. (MLRA 8:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (sav.prof. Ye.B. Tsitritskiy) Chernovitskogo meditsinskogo instituta.

(INFUSIONS, PARENTERAL

prolonged intravenous drip infusions in postop.care)

(POSTOPERATIVE CARE

prolonged intravenous drip infusions)

Román, P.

Coal structure in the light of x-ray analysis. Roman Pampuch. *Przeegląd Górniczy* 9(40), 111-19 (1953).
Probably represents a special polymer consisting of graphite-like aromatic nuclei, to which various side systems are connected at random. Aromatic, aliphatic, and heterocyclic groups may be found in these positions. The process of carbonization proceeds stepwise, and the nucleus is little affected during its course. Conclusions: Increase of aromatization is parallel to the degree of carbonization (C:H ratio increases); the measurements of light-reflectivity indicate that the reflectivity varies with the degree of carbonization; crystallinity increases as the degree of carbonization increases; thermal stability follows the same pattern. It is assumed that the majority of changes of characteristics occurring during the carbonization may be correlated with the effect of carbonization on the sidechains connected to a graphite-like nucleus.

A. J. P.



CA

309

Statistical theory of atomic nuclei... R. Roman. *Acta Phys. Acad. Sci. Hung.* 1, 107-14(1951)(in English).—A so-called "non-quantum theoretical" picture of the nucleus, in which the zero-point kinetic energy of the nucleons is completely neglected, is used to develop a statistical model of nuclei. It is assumed that the field of force between the nucleons is a static and central scalar meson field and that the nucleons fill out the available space in the nucleus in some "pulverized" way. By using an approx. soln. of the potential equation, the binding energies of at. nuclei are calcd. and their surface tensions obtained. The results are numerically very good, even in the case of the lightest nuclei. M. McMahon

ROMAN, Zoltan, dr.

"An empirical demonstration of classical comparative cost theory" by Bela Balassa. Reviewed by Zoltan Roman. Stat szemle 42 no. 3:337-338 Mr '64.

1. Editorial board member, "Statisztikai Szemle."

ROMAN, Zoltan, dr.; SOMOGYI, Miklos, foelado

Fixed assets of the Hungarian national economy. Stat szemle 41
no.7:671-693 JI '63.

1. Kozponti Statisztikai Hivatal osztalyvezetoje (for Roman).
2. Kozponti Statisztikai Hivatal (for Somogyi).

ROMAN, Zoltan, dr., kandidatus

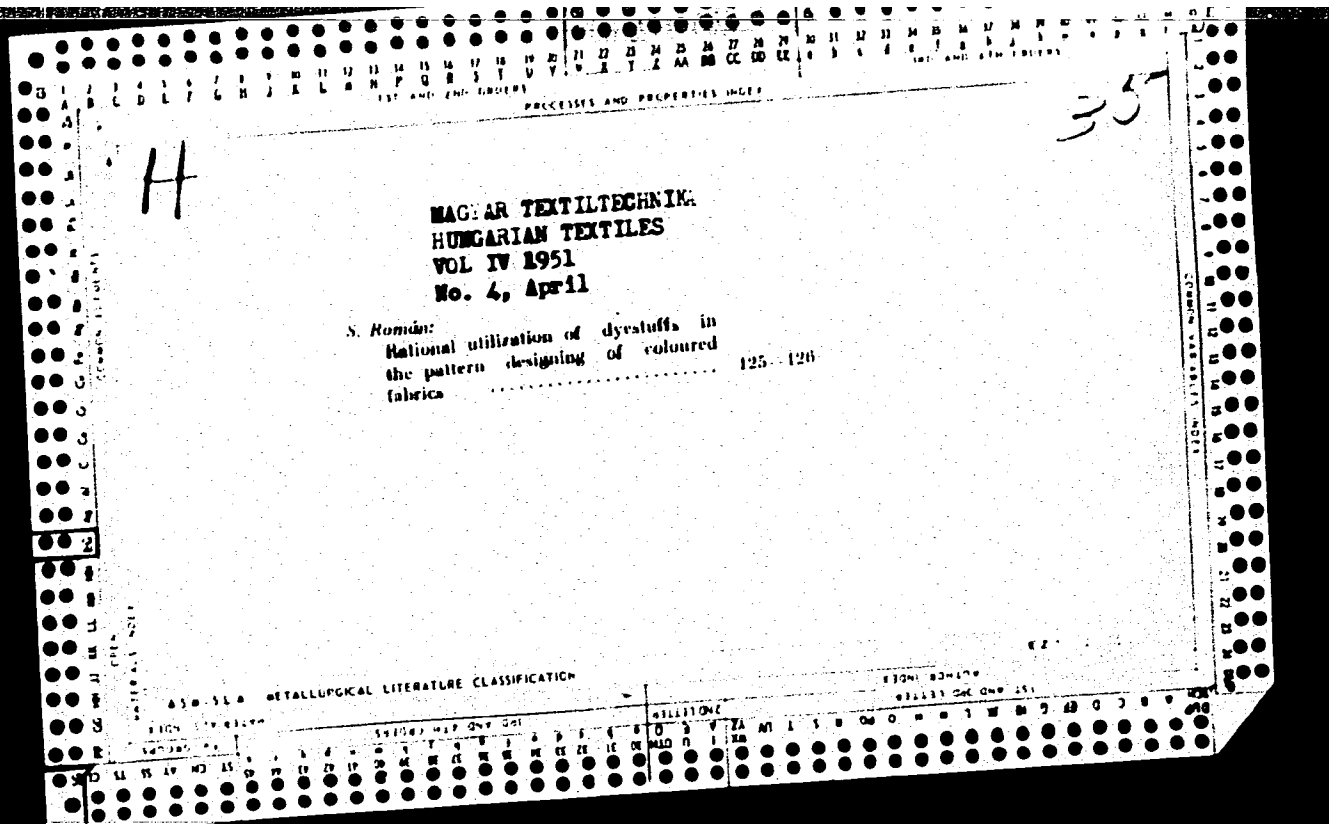
"Econometric analysis of cost and productivity measurement
at plant level in the Netherlands." Reviewed by Zoltan Roman.
Stat szemle 41 no.1:104-105 Ja '63.

1. Központi Statisztikai Hivatal osztályvezetője.

ROMAN, Zoltan, dr., kandidatus

Comparison of the volume of industrial production of various countries. Stat szemle 41 no.1:3-22 Ja '63.

1. Központi Statisztikai Hivatal osztályvezetője.



Romania - Silvas, D.

ROMANIA

BELO, K., MD; FODOR, Gy., MD; SCHRAMEI, K., MD; ROMAN-SILVAS, D.,
MD; OLTEANU, M., MD.

Institute of Medicine and Pharmacy, Tirgu Mures, Department of
Hygiene (Institutul de Medicina si Farmacie, Tirgu Mures,
Catedra de Igiene); Professor Horvath Miklos. - (for all)

Bucharest, Igiene, Vol XII, No 1, Jan-Feb 63, pp 67-70.

"Comments on the Value of the Ring Reaction in Milk for the
Detection of Brucellosis."

(5)

ROMAN, NANA

Trainees. Article Patrici (The Winds of the Fatherland), #6:22:June 55

ROMAN, I.

Activists at work. p. 14.
Visits to the airdrome. p. 15

Vol. 2, no. 1, Jan. 1956
ARIPILE PAIRIEI
Eucaresti, Rumania

Source: East European Accession List. Library of Congress.
Vol. 5, No. 8, August 1956

BUJOREAN, G.; ARVAT, A., [deceased]; SERBANESCU, I.; POPESCU, P. C.;
GRIGORE, S.; OPREA, Reghina; PADUREANU, O.; ROMAN, N.

Lythrum tribracteatum Salzm., a new plant in the flora of Rumania.
(Contributions to the flora of People's Republic of Rumania).
Studii agr Timisoara 8 no.1/2:119-128 '61.

(Rumania--Lythraceae)

ROMAN, N.

Lathyrus inermis Roch., a new species in the flora of Rumania.
Comunicare AR 11 no.6:647-651 Je '61.

1. Comunicare prezentata de C. C. Georgescu, membru corespondent
al Academiei R.P.R.

ROMAN, G.

Improvement in the supply and work of districe repair shops.

p. 446. (Mechanizace Zemedistvi. Vol. 7, No. 19, Oct. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 2,
February 1958

RE: REPAIR, C.

REPAIR, C. Supplying the district repair shops of machine-tractor stations with spare parts. p. 237.

Vol. 6, No. 12, June 1956.

MECHANISACE AGR. ADMINISTR.

AGRICULTURE

Prague, Czechoslovakia

See: East European Accession, Vol. 6, No. 3, March 1957

ROMAN, O. V.; BELIAEV, V. I.; KUTSER, M. Ya.

"The use of a product steel powder from ball bearing production in powder metallurgy."

report submitted for Intl Conf on Powder Metallurgy, New York, 14-17 June 65.

Belorussian Pol. technical Inst, Minsk.

Roman, P.

Distr: 4E3d

Marx, György; and Román, Pál. Energy and momentum in the general theory of fields. Magyar Tud. Akad. Mat. Fiz. Oszt. Közl. 6 (1956), 269-287. (Hungarian)

This paper contains an exposition of the different methods one can use to generate the energy-momentum tensor in field theories. These methods are based on the invariance of the Lagrangian under certain variations.

1) Hilbert's method: The invariance of the Lagrangian with respect to variations of the metric tensor gives the (symmetric) energy-momentum tensor; 2) Belinfante's method: The invariance of the Lagrangian with respect to variations which correspond to infinitesimal inhomogeneous Lorentz transformations enables us to construct a nonsymmetric canonical energy-momentum tensor which can be symmetrized, giving the energy-momentum tensor. The authors then show that the two methods generate the same energy-momentum tensor, if the system is closed (i.e., if the divergence of the energy-momentum tensor is zero); if the system is open, only method 1) can be used. Large numbers of applications are given; the authors construct the energy-momentum tensor for scalar fields, pseudo-scalar fields, spinor fields and Maxwell-fields, without and with sources.

N. L. Balass (Chicago, Ill.)

3
/

ROMAN PAI.

HUNGARY/Theoretical Physics - Quantum Field Theory

B-6

Abs Jour : Ref Zhur - Fizika, No 3, 1958, No 5202

Author : Marx Gyorgy., ~~Roman Pal.~~

Inst : Not Given

Title : Energy and Momentum in the General Theory of the Spinor Field

Orig Pub : Magyar tud. akad. mat. es fiz. tud. oszt. kozl., 1956, 6,
No 3-4, 269-287

Abstract : No abstract

Card : 1/1

34909

R/004/62/000/002/001/002

D014/D105

18.9500

AUTHORS: Roman, P., Rittenberg, V., Didiv, B., and Bălănel, E., (Bucharest)

TITLE: Production of high-purity silicon single crystals

PERIODICAL: Electrotehnica, no. 2-3, 1962, 41 - 52

TEXT: The article deals with the principles of pure silicon manufacture and investigations conducted by ICET - Institutul de cercetări electrotehnice (Electrotechnical Research Institute) on the production of high-purity silicon single crystals for transistors and rectifiers. The authors discuss the production of silicon bars by the reduction of trichlorosilane with hydrogen on a specially shaped tantalum wire, and the production of high-purity p-type silicon single crystals by the zone melting process and the single crystal seed drawing method. Described are a zone melting installation and a single crystal seed drawing installation, both made by ICET. Silicon bars, 300 mm long and 16 mm in diameter can be refined in the zone melting installation, supplying pure single silicon crystals with a resistivity of 30-300 Ω cm. The seed drawing installation was built for 150-gr silicon charges, but only 55-80-gr charges

Card 1/2

X

Production of high-purity silicon

R/004/62/000/002/001/002
D014/D105

were subjected to the seed drawing process. The diameter of the seed was 5-6 mm, while the silicon single crystals obtained were 100-110 mm long and 18-25 mm in diameter, with a resistivity of 10-150 Ω cm. In a few exceptional cases, the single crystals had sections where resistivity exceeded 1,000 Ω cm. The results can be improved by increasing the purity of trichlorosilane and by using the method of decomposition on silicon. There are 18 figures and 1 table. The most important English-language reference reads as follows:
W.G. Pfann: Trans. A.I.M.M.E., 197, 1952, 747.

ASSOCIATION: ICET

Card 2/2

X

POPIAN, I.; MAZU, GY.

Energy and impulse in the general theory of the fields of force. p. 209.
(KOZLEPISZLET, Vol. 6, no. 3/4, 1956. Budapest Hungary)

SU: Monthly List of East European Accessions (MEAL) LC, Vol. 6, no. 9, Sep. 1957. Uncl.

ROMAN, P.

On the antiproton. p.177.

(Fizikai Szemle, Vol. 6, no. 6, Dec. 1956, Budapest, Hungary)

SO: Monthly List of East European Accessions (BEAL) IC. Vol. 6, no. 9, Sept. 1957. Uncl.

1641111

Peaceful use of atomic energy. p. 465. TUDOMÁNYOS ÉS TÁRSADALOMTUDOMÁNYI (Társadalom- és Természettudományi Ismeretterjesztő Vallalat) Budapest. Vol. 113, no. 3, Aug. 1954

SOURCE: East European Accessions List (EAL), Library of Congress
Vol. 5, no. 6, 1956

ROMAN, P.
HUNG

530.143
6732. Quantization of the electromagnetic field in a new type of representation. P. ROMAN. *Acta phys. Hungar.*, 4, No. 3, 209-18 (1955) in German.
After reduction of the scalar field to give the Coulomb energy, the two transverse components of the electromagnetic field can be expressed in terms of one complex quantity. Equations are simple in terms of this quantity. Q. K. BROWN

2
[Handwritten scribbles and signatures]

ROMAN, P.

19
 / Isocovariance properties of leptons. P. Román (Rötveg
 Univ., Budapest). *Nuclear Phys.* 2, 651-9(1959/67). — The
 transformation character of leptons in isobaric space is detd.
 and the various selection rules are studied on the basis of a
 simple postulate regarding the weak interactions of baryons
 and leptons. The slow decay of strange particles also is
 considered. R. W. Pink

3
 1-2778

RMF
 jji

ROMAN, P

28
1-emp
Klyp

Roman, P. Quantelung des elektromagnetischen Feldes
 in einer neuartigen Darstellung. Acta Phys. Acad.
 Sci. Hungar. 4 (1955), 209-218. (Russian summary)
 Methods used by Green and Wolf [Proc. Phys. Soc.
 Sect. A. 66 (1953), 1129-1137] and Novobatzky [Z.
 Physik 111 (1938), 292-300], applicable only to the pure
 radiation field, are extended to fields in the presence of
 finite charged densities. The field equations without the
 Lorentz condition are used. A canonical formalism is
 developed in terms of functions whose Fourier coeffi-
 cients are complex combinations of those of the vector
 potential (longitudinal part eliminated) and the current
 density. This formalism is formally similar to that of a
 complex scalar field. Angular momentum is also discussed
 and the field is quantised. C. Strachan (Aberdeen).

1 - F/W

MS
PH

emp

Roman, P.

3
1- pink

✓ 4964
ON THE ISOCOVARANCE PROPERTIES OF LEPTONS, P.
Roman (R. Eotvos Univ., Budapest). Nuclear Phys. 2, 661-
1957, Feb.

On the basis of a simple postulate regarding the weak interactions of baryons and leptons, the transformation character of leptons in isobaric space is determined and various selection rules are studied. The slow decay of strange particles is also considered. (auth)

1
Handwritten initials

pink up

EXCERPTA MEDICA Sec.9 Vol.12/4 Surgery April 1958

2351. DIAGNOSIS AND SURGICAL TREATMENT OF SOME FORMS OF
HAEMATURIA (Russian text) - Hortolomey N., Roman S. and
Naznash N. - VESTN.KHIR. 1957, 78/1 (83-89)

Haematuria encountered in chronic nephritis and so-called haemorrhagic nephritis is caused by vasomotor disorders brought about by stimulation of the ANS coming from renal or extra-renal foci. These disorders should be considered in the treatment of these pathologic conditions. Good therapeutic results were obtained with novocaine blockades (Wiszniewski) or sympathectomy with decapsulation. Conclusions are based on clinical observations.

Zakryś - Lublin

RUMANIA / Pharmacology and Toxicology. Local Anaesthetic Agents. V-3

Abs Jour : Ref Zhur - Biol., No 16, 1958, No 75754

Author : Khortolomay, N.; Bushu, I.; Roman, S.

Inst : Not given

Title : Experimental Basis of Administration of a Novocain Perfusion in Surgery.

Orig Pub : Rumynsk. med. Obozreniye, 1957, 1, No. 1, 89-97

Abstract : Novocain (I) introduced into the tissue as a nerve block acts locally, by impairing the conductivity of impulses, and resorptively. The absorption rate of I and the duration of the resorptive effect depend on the place of introduction. The general effect of I is stopped with its destruction by a novocain-esterase of plasma. By using an internal infusion of a solution of I during operations, the authors observed the elimination of reflex impairments of respiration upon removal of internal organs. The experimental analysis of this fact showed that I exerts regulating

Card 1/2

RUMANIA / Pharmacology and Toxicology. Local Anaesthetic Agents. V-3
Abs Jour : Ref Zhur- Biol., No 16, 1958, No 75754

effect on respiration during vagotomy, during stimulation of the chemoreceptors of the carotid sinus and sensory ends, with changes of the gaseous composition of the blood. In animals with a removed brain cortex, I has little influence on the increase in respiratory rate caused by an increase in temperature. This effect of I appears in animals with undamaged brain cortex and is little expressed after its removal. The mechanism of the regulating influence of I on respiration is both central and peripheral. The anaesthetic, sympatholytic, vagolytic, antihistamine and antipotassic effects are most important during the resorptive action of I. The authors make wide use of the internal introduction of I during surgical interventions, for the prophylaxis of shock, in the postoperative period. A daily dose of 1-3 gives no side effects if there is no idiosyncrasy to I of liver diseases. With long infusion through each 3-4 hours lo-bleine is added in a solution of I. -- V. M. Vinogradov.

Card 2/2

KHOTOLOMEY, N., professor; ROMAN, S.; KHAZNASH, N. (Bukharest)

Diagnosis and surgical treatment of some therapeutic forms of
hematulia. Vest.khir. 78 no.1:83-89 Ja '57. (MLRA 10:3)

(HEMATURIA

diag. & surg. of therapeutic forms)

HORTOLOMEI, N.; ROMAN, S.; ENESCU, N.; MANESCU-CALARASI, I.

Surgery of gastroduodenal ulcers; statistics in 1450 cases.
Probl. ter., Bucur. 4:181-205 1956.

1. Comunicare prezentata la Institutul de terapeutica al
Academiei R.P.R., in sedinta din 1 noiembrie 1955.

(PEPTIC ULCER, surgery
incidence, compl. & results, Bucharest clinic
statist.)

ROMAN, S.

New textiles made of cotton and
viscose fibers. P. 176.
MAGYAR TEXTILTECHNIKA. (Textilipari
Muszaki es Tudomanyos Egyesulet)
Budapest.
No. 5, May 1956

SOURCES: EEAL - LC Oct. 1956 Vol. 5 No. 10

International Day. p. 2.
Aleksandr Fedorovich Kochaiskii; a biographical sketch. p. 3.
Teachers of the racing sport. p. 4.
MUNTIA RAZNIT, Bucuresti, Vol. 1, no. 3, Mar. 1955.

EN: Monthly List of East European Accessions, (1951), LC, Vol. 4, no. 10, Oct. 1955,
Incl.

HORTOLOMEI, N.; BUSU, I.; ROMAN, St.

Experimental support for the use of novocain perfusions in surgery.
Rumanian M. Rev. 1 no.1:81-87 Jan-May 57.

(PROCAINE, anesth. & analgesia
mechanism of action in surg.)

HORTOLOMEI, N., Academician; BUSU, I.; ROMAN, St.

Experimental bases for use of novocaine perfusions in surgery.
Probl. ter., Bucur. 3:231-240 1956.

(PROCAINE, anesthesia & analgesia
admin., indic. & mechanism of action)

Roman, ST.

Med

Action of procaine on respiration. II. N. Hortolomei, Gh. Proca, I. Busu, St. Roman, and I. N. Enescu. Comun. Acad. Rep. Populare Romine 5, 173-84(1955); cf. C.A. 50, 96041.—The main action of procaine (I) is on the central mechanism of respiration especially on the bulbar respiratory center and on the superior coordination system. On the bulb I diminishes the time of apnea. The action of I on the main centers is influenced by the conservation of cortical activity. I raises the frequency of respiration with intact cortex and sectioned pneumogastriacs, but in animals without cortex no such raise is observed. I shortens the duration of the reflex apnea by animals with whole cortex, but without cortex no action of I is manifested. I acts on the pneumotaxic centers as in thermal polypnea, lowers the frequency of respiratory movements. The absence of cortex is marked by a stronger lowering of this frequency

A. Halasz

HORTOLOMMI, H., academician.; ROMAN, St.; HASNAS, N.

Diagnosis and surgery of some medical hematurias. Probl. ter., Bucur.
Vol 1:181-190 1954

(GLOMERULONEPHRITIS, manifest.
hematuria, surg. indic.)

(HEMATURIA
differ. diag. & surg., indic.)

(KIDNEYS, surg.
enuervation & nephrectomy, in hematuria, indic)

(ANESTHESIA, REGIONAL
lumbar block in hematuria, indic.)

PARPALA, Ana; ANDREI, Dumitru; CHIOVEANU, Misu; DAN, Ion; STOICA, Cornel,
ing.; ROMAN, Stere

Contribution of 76 innovations. Constr Buc 16 no.761:3 8 Ag
'64.

1. Secretary of the Trade-Union Committee, Enterprise of Assembly
Constructions No.2 (for Parpala).
2. Chairman of the Trade-Union
Committee, Enterprise of Assembly Constructions No.1 (for Andrei).
3. Chief Engineer of the Enterprise of Assembly Constructions
No.4 (Chioveanu).
4. Chairman of the Trade-Union Committee,
Enterprise of Assembly Constructions No.5 (for Dan).
5. Head of the Construction Site, Enterprise of Assembly
Constructions No.3 (for Stoica).

POLAND/Chemical Technology - Chemical Products and Their Application. Food Processing Industry.

H-28

Abs Jour : Ref Zhur - Khiniya, No 17, 1958, 59203

Author : Roman Tadeusz

Inst : -

Title : The Suitability of Various Types of Summer Barley for Industrial Reprocessing into a Coffee Substitute.

Orig Pub : Tocz. nauk rolniczych, 1956, A74, No 1, 79-90.

Abstract : The types of summer barley investigated, except the Mlokhov multiple with very fine grain, are all suitable to about the same degree for the production of malt coffee. The bare barley grain because of the absence of a casing, needs a lower temperature of buring. Double-row barley suitable for fermentation production gives the best coffee. The influence of the albuin content on the quality of the product was not

Card 1/2

Card 2/2

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6204

Author : Roman, T.

Inst : Cracow Institute of Plant Selection and
Acclimatization

Title : The Evaluation of the Disposition of Wheat
Varieties to the Sprouting and Shedding of
Grain

Orig Pub : Hodowla rosl. aklimat. i nasienn., 1957, 1,
No 4, 541-558

Abstract : Data, collected at the Cracow Institute of
plant selection and acclimatization on the
determination of the tendency of winter wheat
varieties to sprouting and shedding of grain,
is given in this paper.

Card 1/1

16(1)- 16.2000

66402

7

AUTHOR: Roman, T.

SOV/20-128-6-6/63

TITLE: The Symmetry of Four-Dimensional Border Ornaments

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 6, pp 1122-1124 (USSR)

ABSTRACT: Let A be a unitary matrix and a be a four-dimensional vector. The transformation $y = Ax + a$ is written as (A, a) . The elementary set is a point set 1) which contains $(0, 0, 0, 0)$, 2) which is contained in a sphere, 3) the intersection of which with $x_1 = 0$ admits only diagonal transformations. The border ornament is a set which arises from an elementary set by all translations (E, kt) , k - integral, $t = \begin{pmatrix} 1 \\ 0 \\ 0 \\ 0 \end{pmatrix}$. If the mapping (A, a) transfers an ornament onto itself, then there is a symmetry. The author states that there exist 179 groups of symmetry for four-dimensional border ornaments (8 of which are groups of 16-th order, 64 of which are groups of 8-th order etc.). A geometrical representation is

4

Card 1/2

66402

The Symmetry of Four-Dimensional Border Ornaments SOV/20-128-6-6/6.3

reached by a consideration of three-dimensional transformations with consideration of the colour of the point.

The author mentions A.V.Shubnikov, and A.M.Zamorzayev.

There are 4 references, 3 of which are Soviet, and 1 Roumanian.

ASSOCIATION: Universitet imeni K.I.Parkhona, Bukharest, Rumyniya (University imeni C. I. Parhon, Bucharest, Roumania)

PRESENTED: June 12, 1959, by A.V.Shubnikov, Academician

SUBMITTED: June 10, 1959

4

Card 2/2

2
Roman, Tiberiu. Sur les groupes de symétrie des ornements de bordure en relief. An. Univ. "C. I. Parhon" București. Ser. Ști. Nat. 6 (1957) no. 16, 9-14. (Romanian. French and Russian summaries)

The seven one-dimensional space groups, or ways to repeat a pattern on a ribbon [see, e.g., Coxeter, Trans. Royal. Soc. Canada (3) Ser. III 51 (1957), 2-13] were developed into a family of 31 groups by Speiser [Theorie der Gruppen von endlicher Ordnung, Springer, Berlin, 1927, p. 86]. For each crossing of lines in the pattern, Speiser distinguishes between crossing over and crossing under, as in a braid. The author sketches the history of these "1½-dimensional space groups" and gives a new notation for them. H. S. M. Coxeter (Toronto, Ont.)

mzt
VI

SMW

ROMAN, T., biolog; ROMAN, L., biolog

Contributions to the knowledge of the keeping state of
piled reed. Cel hirtie 12 no. 11: 353-356 N°63.