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S/194/62/000/005/128/157
D271/D308

9.3230

AUTHOR: Nowak, W.

TITLE: The calculation of asymmetrically coupled lines by means of main axes transformation

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 5, 1962, abstract 5-7-38 b (Hochfrequenztechn. und Elektroakust., 1961, v. 70, no. 3, 92-99)

TEXT: The purpose of the work is to investigate whether methods used in the analysis of symmetrical multipole networks are applicable in the calculation of asymmetrical multi-pole circuits. The methods of matrix calculus are used in the study. The limits of application methods, used for symmetrical multi-pole networks, to asymmetrical multi-pole networks are shown. In the analysis of multi-pole networks, symmetrical with respect to a certain plane, wide use is made of the method of connecting in-phase or in-antiphase sources to the network inputs, symmetrical in relation to the network symmetry plane. A situation then arises in the symmetry plane which is equivalent to the short-circuit or open circuit. The possibility of ap-
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plying this method to asymmetrical multi-pole networks is considered; multi-directional systems of wide-band waveguide circuitry are an example of asymmetrical multi-pole networks. The mathematical analysis is based on the matrix theory of multi-pole systems. Various types of connections between transmission lines are classified as parallel - parallel, cascade - cascade, cascade - parallel and parallel - cascade. It is assumed that the transmission lines have the same propagation constants and are non-dissipative. Cascade - cascade connection is described by a resistance matrix, parallel - parallel connection - by a conductance matrix, and cascade - parallel (or parallel - cascade) connection - by the hybrid matrix:

x

$$\begin{vmatrix} U_1 \\ I_2 \end{vmatrix} = (H) \begin{vmatrix} I_1 \\ U_2 \end{vmatrix}.$$

Conductance or resistance matrices of four-pole networks are of the type:

$$\left. \begin{matrix} /Y/ \\ /Z/ \end{matrix} \right\} = \begin{vmatrix} j a & j b \\ j b & j c \end{vmatrix}.$$

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The hybrid matrix is:

$$/H/ = \begin{vmatrix} ja & b \\ -b & jc \end{vmatrix}.$$

Transmission lines are also described by line matrices. Transformation with respect to main axes is based on coordinate transformation of the linear vector function

$$/h/ = /A/ /x/$$

of such a type that

$$/x/ = /I/ /x̄/$$

$$/y/ = /I/ /ȳ/$$

where I is an arbitrary non-singular matrix. At the same time

$$/y/ = /I/^{-1} /A/ /I/ /x̄/.$$

Analysis performed on this basis shows that transformation with respect to main axes (transformation with respect to diagonals) can be applied to systems with quantitative asymmetry (e.g. parallel - pa-
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parallel or cascade - cascade connection of lines with different wave impedances) and with qualitative asymmetry (e.g. cascade - parallel connection). This transformation can be applied either to the parallel - parallel or to cascade - parallel connection, but not to both types of connection at the same time. Besides, in the case of the quantitative asymmetry, basic parameters of lines involved must be identical. In spite of these limitations, the method of main axes transformation used in symmetrical networks can be successfully applied in a number of cases (directional waveguide connections among them). The application of the method is illustrated on the example of an asymmetrical 8-pole waveguide system. 8 references: (Inst. für Hochfrequenztechnik und Elektronenröhren der TH Dresden, GDR) (Institute for High Frequency Engineering and Electron Tubes, Dresden Technical University, East Germany). [Abstractor's note: Complete translation].

Card 4/4

DMOCHOWSKI, Jerzy; NOWAK, Wanda

Critical periods in the water disposition of two varieties of
spring rape. Prace przyrod roln Szczecin 23 no.3:1-31 '64.

1. Department of Plant Physiology of the School of Agriculture,
Szczecin.

NOWAK, Zbigniew (Krakow)

Problem of nonlinear stability of a cylindrical orthotropic shell under hydrostatic pressure. Archiw bud masz li no. 3: 619-636 '64.

EAST GERMANY/Theoretical Physics - Quantum Mechanics.

Abstr Jour : Ref Zhur - Fizika, No 6, 1959, 12173

Author : Nowak, W., Tietz, T.

Inst : University, Lodz, Poland

Title : Simplification of the Sommerfeld Method of Polynomials.

Orig Pub : Ann. Physik, 1958, 1, No 4-5, 296-298.

Abstract : The Sommerfeld method for determining the eigenvalues of the Schroedinger equation is based on representing the equation in the form $R = yf_1$, where y insures the satisfaction of the boundary conditions $R(\infty) = R(0) = 0$. The function f_1 is represented by a power series and the eigenvalues are found from the condition of cutoff of this series. The author considers when the equation for f_1 is in the form

Card 1/2

- 3 -

NOWAK, W.

"Significance of the genus Hantkenina in stratigraphy," *Przeglad Geologiczny*,
Warszawa, No 9, Sept. 1954, p. 377.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

NOWAK, W.

~~NOWAK, W.~~

Sub-Silesian series in the region of Biala-Bielsko sheet; a summary of a report.

P. 460 (Przeegląd Geologiczny, Vol. 4, no. 10, Oct. 1956, Warszawa, Poland)

Monthly Index of East European Accessions (VFAI) LC. Vol. 7, no. 2,
February 1958

NOWAK, W.

The problem of the last lot in a geodetic layout. p. 85.
(PRZEGLAD GEODEZYJNY Vol. 12, no. 3, Mar. 1956. Warsaw, Poland)

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

NOWAK, Wieslaw

Palaeodictyum in the Carpathian Flysch. Kwartalnik geol 3 no.1:103-125
'59. (EEAI 9:8)

1. Karpacka Stacja Terenowa I.G.
(Carpathian Mountains) (Poland--Palaeodictyum)

POSZARSKI, Leszek; NOWAK, Wieslaw; ZYTKO, Kazimierz

Remarks on the age of the Godula beds. *Kwartalnik geol* 3 no.1:
127-151 '59. (EEAI 9:8)

1. Karpacka Stacja Terenowa I.G.
(Poland--Geology) (Carpathian Mountains)

LISZKOWA, Janina; NOWAK, Wieslaw

Some results of the comparative geological and palaeontological studies made in 1961 in the area of the Beskida of Moravia and Silesia. Kwartalnik geol 6 no.2:442-444 '62.

1. Karpacka Stacja Terenowa, Instytut Geologiczny, Warszawa.

NOWAK, Wieslaw

POLAND

NOWAK, Wieslaw

Carpathian Field Station of the Geological Institute
Karpacka Stacja Terenowa IG [Instytutu Geologicznego]

Warsaw, Kwartalnik geologiczny, No 5, 1965, pp 421-27.

"Preliminary Results of Study on Exotics from the Inoceranian Beds of the Skole Series, of Several Sites in the Przemyśl and the Bircza Carpathians".

NOWAK, Wieslaw

PPOLAND

NOWAK, Wieslaw; SIKORA, Wacław

Carpathian Field Station of the Geological Institute
(Karpacka Stacja Terenow IG [Instytutu Geologicznego])

Warsaw, Kwartalnik Geologiczny, No 3, 1963, pp 434-38.

"Preliminary Results of Comparative Examinations Made
in 1959 in the Flysch of the Region of Vienna".

NOWAK, Wieslaw

POLAND

NOWAK, Wieslaw

Carpathian Field Station, Geological Institute
(Karpacka Stacja Terenowa Instytutu Geologicznego)

Warsaw, Kwartalnik geologiczny, No 3, 1963, pp 552-54.

"Observations on the Occurrence of Certain Plankton
Microorganisms in Cavities of the Upper Malm of the
Bielsko Carpathians".

NOWAK, Wieslaw

Pithonella ovalis (Kaufmann) in the Eastern Flysch Carpathians.
Rocz geol Krakow 33 no.1/3:229-239 '63.

1. Instytut Geologiczny, Karpacza Stacja Terenowa, Krakow.

GEROCH, Stanislaw; NOWAK, Wieslaw

Profile of the Lower Cretaceous in Lipnik near Bielsko. Rocznik geol Krakow 33 no.1/3:241-264 '63.

1. Department of Geology, Jagellonian University, Krakow, and Geological Survey, Carpathian Branch, Krakow.

NOWAK, Wieslaw

Some recent data on the Goduly series of the Western Carpathians. Kwartalnik geol 6 no.4:793-794 '62.

1. Karpacka Stacja Terenowa, Instytut Geologiczny, Warszawa.

LISZKOWA, Janina; NOWAK, Wieslaw

Mottled Rotalipora marls in the Perechin Klippe of the Klippe belt in the Transcarpathian Ukraine (U.S.S.R.). Roczn geol Krakow 32 no.4:525-528 '62.

1. Instytut Geologiczny, Karpacka Stacja Terenowa, Krakow.

LISZKOWA, Janina; NOWAK, Wieslaw

Older Cretaceous elements of the Subsilesian Frydek series.
Kwartalnik geol 7 no.2:235-255 '63.

1. Karpacka Stacja Terenowa, Instytut Geologiczny, Krakow.

NOWAK, Wladyslaw A. (Krakow)

Relief of the Cretaceous edge in the Nida River Trough.
Czasop geograf 36 no.2:139-154 '65.

MARK, L.

"Planning the Thickness of Concrete Buried", p. 12, (DAMP), Vol. 12, No. 1, Jan. 1956, (London, London)

S.: Monthly List of East European Accessions, (MEL), 10, Vol. 1, No. 1, May 1955, Incl.

Nowak, Z.

COUNTRY : Poland B-9
CATEGORY :
ABS. JOUR. : RZKhim., No. 14 1959, No. 48828
AUTHOR : Krause, A. and Nowak, Z.
INST. : Not given
TITLE : On the Effect of the Carrier and of the Promoter
Concentration on the Catalytic Mutation of a
Complex Multicomponent Catalyst
ORIG. PUB. : Roczniki Chem, 32, No 3, 675-678 (1958)
ABSTRACT : The authors have investigated the activity of
three-component catalysts obtained by mixing
three solutions containing Cu(2+), Co(2+), and
[Fe(CN)₆]⁴⁻ in concentrations of 1 mg/ml, in
the decomposition of H₂O₂. It is shown that
maximum activity is obtained by the combination
Cu(2+) + Co(2+) + [Fe(CN)₆]⁴⁻ and that minimum
activity is obtained with the combination
[Fe(CN)₆]⁴⁻ + Cu(2+) + Co(2+). When these ions
are precipitated on a Cd(OH)₂ carrier, the

CARD: 1/2

URBANSKI, T.; NOWAK, Z.; MORAG, E.

Formation of tetranitromethane from nitroform and nitryl chloride.
Biul chim PAN 11 no.2:77-78 '63.

1. Technical Military College, Warsaw.

Now AK, Zdenek

Chem
1/1/50

✓ Polarographic control of water pipe corrosion Zdenek
 Nowak. *Wattenwirtschaft* 5: 1950, 221-223
 Methods to det. and control water pipe corrosion are pre-
 sented with particular emphasis on the practical application
 to the problem. Procedures for detg. the influence of
 ground and surface water on pipe corrosion are divided into
 a direct method: immediate handling of the metal surface
 affected by the water, and an indirect method: the phys-
 and chem. qualities and variations of the water. H_2 and
 CO_2 content, acidity, alk., elec. cond., pH, and absorp-
 tion are considered. The polarograph is utilized to study
 the production of drinking water from surface water,
 wherein coagulation and pptn. are employed in purification
 operations. R. J. Allister

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1/1/50

NOWAK, Z.; ROCZNIK, K.

Determination of iron content in polyester resins. Polimery
tworz wielk 9 no. 2: 66-67 F '64.

1. Pustkow Synthetic Textile Works, Pustkow.

NOWAK, Zbigniew (Krakow)

Nonlinear problem of stability of a uniformly compressed,
cylindrical, ribbed shell with clamped edges. Archiw bud
maszyn 12 no.1:107-140 '65.

1. Submitted September 1964.

S/081/62/000/024/012/052
B117/B186

AUTHORS: Nowak, Zdzisław, Rocniakowa, Krystyna

TITLE: Method of determining refractometrically the dry residue in aminoplasts

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 826, abstract 24P21 (Polimery, tworzywa wielkocząsteczkowa, v. 6, no. 12, 1961, 403 - 405 [Pol.; summaries in Eng. and Russ.]

TEXT: A method was developed for the refractometric determination of the dry residue in melamine resins used for producing molding powders and in urea-formaldehyde resins (40 and 60 % concentration) used as glues. A linear dependence was found between the dry residue and n_D^{20} of the resin. The dry residue was determined gravimetrically (4 hrs at $105 \pm 1^\circ\text{C}$) and compared with the percentage of dry residue determined by an Abbé refractometer (with a double scale indicating both the dry residue suitable for food products and n_D^{20}). Based on experiments, the authors recommend two ways of determining the dry residue: (1) Determination of n_D^{20} of the

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Method of determining ...

resin and finding the content of dry residue in the diagram; (2) refractometric determination of the percentage of dry residue and subtraction of the following constant from this value: 19.9 % for melamine resin and 5.02 % for urea-formaldehyde resin to be used as glues. [Abstracter's note: Complete translation.]

Card 2/2

NOWAK, Zbigniew; ZYCZKOWSKI, Michal

Review of more recent works on the stability of thin-walled shells. Mechan teor stosow 1 no.2:31-66 '63.

1. Department of Technical Mechanics, Technical University, Krakow.

NOWAK, Z.

Nonlinear problem of stability of a closed orthotropic cylindrical shell with clamped edges. Bul Ac Pol tech 12 no. 3:165-175 '64.

1. Department of Technical Mechanics, Technical University, Krakow
Presented by W. Olszak.

L 62223-65 EWA(h)/ENP(k)/ENT(d)/EWA(d)/ENP(w)/ENP(v) EM/WA

ACCESSION NR: AP5013789

PO/0003/65/013/001/0067/0093

AUTHOR: Nowak, Z. (Krakow)

TITLE: Analysis of the stability of a closed orthotropic cylindrical shell under hydrostatic pressure

SOURCE: Rozprawy inzynierskie, v. 13, 1965, 67-93

TOPIC TAGS: hydrostatic pressure, shell structure stability, cylindric shell, orthotropic cylindric shell, isotropic shell

ABSTRACT: The paper analyzes, in a linear and nonlinear approximation, the stability of a high, thin-walled, closed cylindrical round shell presenting natural orthotropy and subjected to a constant external hydrostatic pressure. In contrast to other studies, it is assumed that the edges of the shell are fastened and cannot be displaced in a radial direc-

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pared with the case of a beam resting
with edges resting on simple supports. Orig. art. has: 7 figures, 2 tables, and 71
formulas.

Card 1/2

L 62223-65

ACCESSION NR: AP6013789

ASSOCIATION: Katedra Mechaniki Technicznej, Wydział Mechaniczny, Politechnika
Krakowska (Technical Mechanics Section, Mechanics Division Krakow Polytechnic
Institute)

SUBMITTED: 12Mar64

ENCL: 00

SUB CODE: ME, AS

NO REF SOV: 008

OTHER: 010

L 61577-65 EWT(d)/EWT(m)/EWT(w)/EWA(d)/EWA(v)/EWA(k)/EWA(h) Pf-4/Pab WK/EM

ACCESSION NR: AP5011092

FO/0032/05/012/001/0107/0140

AUTHOR: Nowak, Z. (Krakow)

28
B

TITLE: Nonlinear stability of a uniformly compressed cylindrical shell with ribs and clamped edges

lv

SOURCE: Archiwum budowy maszyn, v. 12, no. 1, 1965, 107-140

TOPIC TAGS: shell stability, shell structure stability, shell structure, circular cylindrical shell, reinforced circular cylindrical shell, upper critical pressure, lower critical pressure, Ritz Timoshenko energy method

ABSTRACT: This article is a generalization of a study published by the author in another issue of this journal (No. 3, 1964). The stability of a thin-wall circular cylindrical closed shell of small rise reinforced by a dense network of evenly spaced longitudinal and circumferential elastic ribs is analyzed from the standpoint of the linear and nonlinear theories. It is assumed that the shell is subjected to the action of uniform external pressure. It is also assumed, in contrast to

is solved by the Mitz-Timoshenko energy method. A theoretical investigation of the stability of a short circular cylindrical shell with ribs is presented. It is shown that the critical pressure of a shell with ribs is substantially higher than that of a shell without ribs. The number of circumferential full waves generated at a general loss of stability is markedly lower for a short shell with ribs than for one without ribs, and for the short shell with ribs the lower critical pressure is equal to the upper critical pressure (the same as for a shell with clamped edges but without ribs), so that the so-called "instability zone" is eliminated, making it possible for the design-

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L 61577-65

ACCESSION NR: AP5011092

leads to the conclusion that 1) a short circular cylindrical shell with ribs loses stability at a substantially higher upper critical pressure than a shell without ribs having the same geometric and elastic parameters, 2) the number of circumferential full waves generated at a general loss of stability is markedly lower for a short shell with ribs than for one without ribs, and 3) for the short shell with ribs the lower critical pressure is equal to the upper critical pressure (the same as for a shell with clamped edges but without ribs), so that the so-called "instability zone" is eliminated, making it possible for the design-

critical pressure. ORIG. ART. NOS: 101 101000000, 3 2000000, ...

ASSOCIATION:	none	ENCL:	00	SUB CODE:	AS
SUBMITTED:	008ep64	OTHER:	011		
EO REF GOV:	004				

Card 2/2 *all*

ROSNER, Julian; WANIC, Aniela; NOWAK, Zdzislaw

Studies on the sensitivity of staphylococci in pyodermas with special considerations on therapeutic results. Prsegl.derm,Warsz. 46 no.3:239-247 My-Je '59.

1. Z Kliniki Dermatologicznej A.M. w Poznaniu. Kierownik: prof. dr. A. Strassynski.
(STAPHYLOCOCCUS pharmacol.)
(ANTIBIOTICS pharmacol.)
(PYODERMA microbiol.)

BURDA, Adam; FREZER, Olga; NOWAK, Zdzislaw

Modern methods for the treatment of psoriasis. Przegl.derm.,
Warsz.46 no.3:289-299 My-Je '59.

1. Z Kliniki Dermatologicznej A.M. w Poznaniu. Kierownik: prof.
dr. A. Straszynski.
(PSORIASIS ther.)

NOWAK, Zdzislaw

Griseofulvin in the treatment of dermatomycoses according to material
of the Dermatological Clinic of the Academy of Medicine in Poznan.
Przegl. dermat. 49:243-246 '62.

1. Z Kliniki Dermatologicznej AM w Poznaniu Kierownik: prof. dr
A. Straszynski.

(GRISEOFULVIN)

KROL, Wladyslaw; BICZ, Natalia; NOWICKI, Zdzislaw

A case of pulseless disease caused by collagenosis. Pol. tyg.
lek. 20 no.13:479-480 29 Mr '65

1. Z I Kliniki Chorob Wewnetrznych Akademii Medycznej w Krakowie
(Kierownik: prof. dr. Leon Tochowicz) i z Zakladu Histologii
Akademii Medycznej w Krakowie (Kierownik: prof. dr. Jadwiga
Ackermann).

Nowak, Zofia

7054* Some Properties and Use of Silicones in the Aircraft Industry. O niektórych własnościach i zastosowaniu silikonów w lotnictwie. (Polish.) Zofia Nowak Technika Lotnicza, v. 11, no. 1, Jan. 1956, p. 5-7. Includes graph. 7 ref.

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1 MAT*

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E.V.
A.P.
MAT
MAT
274*

NOWAK, Zofia, mgr

Is there real need for workday nurseries? Praca za~~to~~zp spol
7 no.1:21-26 Ja '65.

ROSLAWSKI, Adam; MIKLASZEWICZ, Michal; HOWAK, Zofia

Certain functional investigations of the connective tissue and of the blood vessels of the skin in rheumatoid arthritis. Polski tygod. lek. 11 no.14:601-604 2 Apr 56.

1. Z I Kliniki Chorob. Wewn. AM we Wroclawiu; kier. prof. dr. Zofia Czezoska, Wroclaw, Poniatowskiego 9 I Klin. Chor. Wewn.
(ARTHRITIS, RHEUMATOID, pathology,
skin connective tissue & blood vessels (Pol))
(SKIN, in various diseases,
rheum. arthritis, connective tissue & vasc. changes (Pol))

NOWAK, Zygfryd, mgr inż.; OSIP, Tomasz, techn.; SYREK, Edmund, techn.

Economic evaluation of mechanical dressing of coarse assortments.
Główny Instytut Górnictwa no. 352/360:151-157 '64.

1. Central Mining Institute, Katowice.

NOWAK, Zygfryd, mgr inz.

Utilization of flotation waste materials. Wiadom gosp 16 No. 1
49-52 F '65.

SREDNIAWA, Jerzy, mgr inż.; MIELECKI, Tadeusz, doc. dr inż.; NOWAK, Zygfryd,
mgr inż.; ROMANCZYK, Emanuel, mgr inż.; TOBICZYK, Andrzej, mgr inż.;
GAS, Bogdan, mgr inż.

Industrial experiment of applying starch flocculation as performed
in the processing plant of the Knurów mine. Wiadom gorn 16 no.4:
113-117 Ap '65.

1. Separator Designing Office, Katowice (for Sredniawa).
2. Central Mining Institute, Katowice (for Mielecki, Nowak, Romanczyk, Tobiczki).
3. Knurów mine (for Gas).

KOZŁOWSKI, Czesław; NOWAK, Zygfryd; KAZISZYN, Irena; NADZIAKIEWICZ, Julian

Possibility and suitability of separating anthracite coal from coking
charge coal from the Victoria mine. Koks 7 no.4:133-139 J1-Ag '62.

1. Główny Instytut Górnictwa, Krakow (for Kozłowski and Nowak)
2. Instytut Chemicznej Przerobki Węgla, Zabrze (for Kaziszyn and Nadziakiewicz).

KOZŁOWSKI, Czesław; AMBROZY, Jerzy; LASKOWSKI, Tadeusz; LACH, Ryszard;
NOWAK, Zygfryd; WINNICKI, Jerzy

Evaluation of the exploitation profitability of coal deposits.
Przełgł gorn.18 no.6:347-354, Je '62.

1. Komisja Przerobki Mechanicznej i Wykorzystania Hald, Rada Techniczno-
Ekonomiczna, Ministerstwo Górnictwa i Energetyki, Warszawa

LABENDZINSKI, Franciszek; NOWAK-RESZELOWA, Irena

Posttransfusional cerebral complications in various blood diseases.
Polskie arch. med. wewn. 26 no.12:1815-1817 1956.

1. Z III Kliniki Chorob Wewnętrznych A.M. w Poznaniu
Kierownik: prof. dr. med. F. Labendzinski. Poznan, ul.
Mickiewicza 22.

(BLOOD TRANSFUSION, compl.

cerebral hemorrh., in myelocytic leukemia &
pernicious anemia (Pol))

(LEUKEMIA, MYELOCYTIC, compl.

cerebral hemorrh. after blood transfusion (Pol))

(ANEMIA, PERNICIOUS, compl.

same)

(CEREBRAL HEMORRHAGE, etiol. & pathogen.

blood transfusion in myelocytic leukemia & pernicious
anemia (Pol))

NOWAK-RMSZEL, Irena; PRZYBYL, Leszek

Case of cancer of the pancreas tail with metastasis to heart. Polski tygod. lek. 13 no.24:920-921 16 June 58.

1. Z III Kliniki Chorob Wewnetrznych Akademii Medycznej w Poznaniu:
kierownik: prof. dr Fr. Labendzinski. Adres: Poznan, ul. Szkolna 8/12.
III Klin. Chor. Wewn. A. M.

(PANCREAS, neoplasms
metastases to heart, case report (Pol))

(HEART, neoplasma
metastatic from pancreas tail, case report (Pol))

NOWAK-RESZEL, Irena (Poznan, ul. Marszalkowska 20.)

Frequency of bone and bone marrow changes in malignant granuloma.
Polskie arch. med. wewn. 29 no.2:253-256 1959.

I. Z III Kliniki Chorob Wewnętrznych A. M. w Poznaniu Kierownik:
prof. dr med. F. Labendzinski.

(HODGKIN'S DISEASE, pathol.
bone & bone marrow (Pol))

(BONE AND BONES, pathol.
in Hodgkin's dis. (Pol))

(BONE MARROW, pathol.
same)

HOWAK-RESZEL, Irena; STASINSKI, Tadeusz

Electro- and ballistocardiographic picture and behavior of electrolytes in atherosclerosis of the coronary vessels. Polskie arch.med.wewn. 30 no.7:1013-1017 '60.

I. Z III Kliniki Chorob Wewnętrznych A.M. w Poznaniu Kierownik
Kliniki: prof. dr med. F.Dabendzinski
(CORONARY DISEASE diag)
(ELECTROCARDIOGRAPHY)
(BALLISTOCARDIOGRAPHY)
(ELECTROLYTES blood)

NOVAKOW, T.

3-
Elder
1-RML

YUGO

519 156 83

3817. The Auger electrons of radium. E. I. NOVAKOW. Letter in *Bull. sci. Univ. Acad. Yugoslav.* 11-12 (Jan. 1933) in French.

It is suggested that the electron spectrum of RaB might be Auger electrons resulting from internal conversion of inner bremsstrahlung. Using a high-resolution β -spectrometer, lines were found at 75, 80 and 86 keV, with relative intensities 2:0.8:1. The same lines are also associated, as expected, with the transition $\text{ThC} \rightarrow \text{ThC}'$. A. O. STANESKY

RW
RML
RML

NOWAKOWA, A.

NOWAKOWA, A Food poisoning from products of vegetable origin. p. 16.

Vol. 11, no. 9, Sept. 1956
PREMYSL GASTRONOMICZNY
TECHNOLOGY
Warsaw, Poland

So. East Accession Vol. 6, no. 2, Feb., 1957

HOWAKOWA, Halina, Szczecin, ul. W.Pola 3

Use of a method of improved adhesion of full prosthesis by quick polymerizing masses and by fitting of impressions by Rehn's method with the Getz mass. Czas. stomat. 7 no.10:388-393 Oct 54.

1. Z Zakładu protetyki stomatol. A.M. w Szczecinie. Kierownik doc. dr. A.Kulikowski

(DENTAL PROSTHESIS, FULL

fitting by improved adhesion & use of quick polymerizing mass)

(DENTAL MATERIALS

impression material by Getz & quick polymerizing masses)

NOWAKOWA, Krystyna; KOWALCZYKOWA, Janina; ALEKSANDROWICZ, Julian;
JANICKI, Kazimierz

On difficulties in the differential diagnosis of sympathoblastoma from
tumors of the hematopoietic system. Pol. arch. med. wewnet. 32 no.2:
237-247 '62.

1. Z Zakładu Anatomii Patologicznej AM w Krakowie Kierownik: prof. dr
med. J. Kowalczykowa i z III Kliniki Chorob Wewnętrznych AM w Krakowie
Kierownik: prof. dr med. J. Aleksandrowicz.

(NEUROBLASTOMA diag) (HEMATOPOIETIC SYSTEM neopl)

LANKOSZ, Jan; JEDRYCHOWSKI, Wieslaw; NOWAKOWA, Krystyna

Diagnostic difficulties in a case of a malignant tumor of the neuroblastoma type. Pat.Pol. 15 no.1:63-71 Ja-Mr'64

1. Z I Kliniki Chorob Wewnetrznych AM w Krakowie (kierownik: prof.dr.med.L.Tochowicz) i z Zakladu Anatomii Patologicznej AM w Krakowie (kierownik: prof. dr. med. J.Kowalczykowa).

*

NOWAKOWNA, Jadwiga

New method of detecting neurosecretion and its application in studies on the neurosecretory system in lamprey. Przegl zoolog 6 no.4:311-313 '62.

1. Zaklad Zoologii Ogolnej, Instytut Zoologiczny, Uniwersytet, Wroclaw.

NOWAKOWNA, Jadwiga

The Embryological Conference, Wroclaw, December 18-19, 1961.
Przeegl zoolog 6 no.2:196-197 '62.

NOWAKOWNA, Jadwiga

A conference on embryology (Wroclaw, December 18-19, 1961).
Kosmos biol 11 no.3:342-343 '62.

NOVAKOWNA, Jadwiga

Second Histochemical Symposium in Chorzow, May 2-9, 1964.
Przeł zool 8 no.4: 375-376 '64. (MIRA 17:11)

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Autolysis of baker's and brewer's yeasts. Acta microb. polon. 6 no.3:
293-302 1957.

1. Z Zakładu Mikrobiologii Technicznej Politechniki Łódzkiej w Łodzi.
(SACCHAROMYCES CEREVISIAE,
autolysis (Pol))

NOWAKOWSKA, A.

Resistance of yeast autolysates to microbiological infections.
Acta microbiol. polon. 6 no.3:303-307 1957.

1. Z Zakładu Mikrobiologii Technicznej Politechniki Łódzkiej w Łodzi.
(SACCHAROMYCES CEREVISIAE,
autolysates, resist. to microbiol. contamination (Pol))

NOWAKOWSKA, A.

Studies on the effect of static effort on conditioned reflex in man.
Acta physiol. polon. 8 no.3:486-487 1957.

1. Z Zakładu Fizjologii Pracy A. M. w Warszawie Kierownik: prof dr Wl.
Missiuro.

(REFLEX, CONDITIONED,

eff. of static effort in man (Pol))

(EXERCISE, effects,

on conditioned reflex, static, effort test in man (Pol))

HOWAKOWSKA, Alicja

Studies on the effect of static effort on conditioned reflex activity in man. Acta physiol. polon. 8 no.4:669-676 1957.

1. Z Zakładu Fizjologii Pracy A. M. w Warszawie. Kierownik: prof. dr Wl. Missiuro.

(EXERCISE, effects,
on conditioned reflex activity in man (Pol))

(REFLEX, CONDITIONED,
eff. of static effort in man (Pol))

POLAND / Microbiology. Microbes Pathogenic for Man and Animals. Pathogenic Fungi and Actinomyces. F-4

Abs Jour: Ref Zhur-Biol., 1958, No 17, 76854.

Author : Rzucidlo, Ludwik; Stachow, Aleksandra; Nowakowska, Alicja; Mackiewicz, Irena; Rudzki, Edward.

Inst : Not given.

Title : Chemical and Biological Properties of Cellular Membranes of the Yeast-Like Fungi *Candida albicans*, *Monilia* and *Geotrichum*.

Orig Pub: Med. doswiad. i mikrobiol., 1957, 9, No 2, 113-124.

Abstract: Dead cells of yeast-like fungi - pathogenic (*C. albicans*) and saprophytes (*Candida*, *G. pulmonare*, *M. mortifera* and *Cryptococcus pulcherrimus*) - inactivate a complement of the guinea pig in vitro at 37°. The degree of inactivation is not the same with different species and does not depend on their

Card 1/2

58

POLAND / Chemical Technology. Chemical Products and H-32
Their Application. Artificial and Synthetic
Fibers.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 3180.

Author : Jakubowska, J., Oberman, H., Nowakowska, A.

Inst : --

Title : Microbiological Investigation of Synthetic
Casein Fiber and Its Solution.

Orig Pub: Zesz. nauk. Politechn. lodzkiej, 1957, No 16,
15-41.

Abstract: No abstract.

Card 1/1

NOWAKOWSKA, Alina; HUDKOWSKA, Anna

Two cases of neurological complications in stomatitis aphthosa.
Neurologia etc. polska 4 no.1:61-66 Ja-F '54.

1. Z Kliniki Chorob Nerwowych Akademii Medycznej we Wroclawiu.
Kierownik: prof. dr R. Arend.
(STOMATITIS, APHTHOUS, complications,
*CNS dis.)
(CENTRAL NERVOUS SYSTEM, diseases,
*caused by stomatitis, aphthous)

NOWAKOWSKI, Romuald, mgr inz.; NOWAKOWSKA, Anna, mgr inz.

Surplus power in monthly balances of distribution networks.
Energetyka Pol 18 no. 1: 10-14 Ja '64.

NOJAKOSKA, Bozona

Studies on coating of paper (embossed papers and paper creathing by dispersing of plastics. Czechoslovakia 20 no. of 197-198. p. 164.

1. pulp an Paper Institute, Lodz.

Faint, illegible text, possibly a list or document header, located within the large white rectangular area.

NOWAKOWSKA, H.

NOWAKOWSKA, H.

"Review of the publishing activities of the Institute for Organization and Mechanization of Building in 1954." p. 366.

(PREZBIENGLAD BUDOWLANY. Vol. 26, No. 11, Nov. 1954. Warszawa, Poland)

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

E 1204-66 EWP(e)/EWP(f)/EWP(b) EWE

ACCESSION NR: AP5021294

PO/0015/65/000/008/0212/0214

AUTHOR: Nowakowska, Janina; Chojnicka, Grazyna

TITLE: Preliminary work on the production technology of photosensitive glasses

SOURCE: Szklo i ceramika, no. 8, 1965, 212-214

TOPIC TAGS: photosensitivity, optic glass, glass property, glass product

ABSTRACT: The paper reviews the present state of the production of photosensitive glasses. The principle of operation of such glasses is described briefly, as well as the mechanism of formation of an image in such glasses during heating. Photochemical reactions in such glasses are briefly discussed and four typical photochemical reactions are listed. The chemical composition of photosensitive glasses is also discussed. Two stages of image production (UV irradiation and heating) in photosensitive glasses is discussed. The different views on the state of the ions of photosensitive metals in such glasses are reviewed. The quality of the image produced and the applications of photosensitive glasses are briefly discussed. Investigations of photosensitive glasses have begun in 1954 in the Instytut Przemyslu Szkla i Ceramiki (Institute of the Glass and Ceramic Industry) in Warsaw. Glasses of three composition systems were used. To all the glasses investigated CaO_2 , SnO_2 (or Sb_2O_3) and light-

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ACCESSION NR: AP5021294

sensitive metal (Ag or Au) was added. Spectrophotometric measurements are made of the transmittivity of visible radiation through the glasses investigated. Attempts are being made to produce thin plates 0.1 to 1.0 mm thick for applications in radio engineering. Such plates after irradiation and heat treatment are chemically etched in order to obtain repeatable patterns.

ASSOCIATION: Instytut Przemyslu Szkla i Ceramiki, Warsaw (Institute of the Glass and Ceramics Industry)

SUBMITTED: 00

ENGL: 00

SUB CODE: MT, OP

NO REF SOV: 001

OTHER: 004

mlb
Card 2/2

ACC NR: AP7002656

SOURCE CODE: PO/0015/66/000/012/0353/0356

AUTHOR: Nowakowska, Janina

ORG: Glass and Ceramic Industry Institute, Warsaw (Instytut Przemysłu Szkła i Ceramiki)

TITLE: A crystalline glass product-agalit

SOURCE: Szkło i ceramika, no. 12, 1966, 353-356

TOPIC TAGS: glass, ceramic, mechanical property, glass manufacture

ABSTRACT: This review article, based on Western as well as Communist block sources, deals with "agalit", a $\text{SiO}_2\text{—Al}_2\text{O}_3\text{—Li}_2\text{O—K}_2\text{O}$ glass containing additions of silver, gold, platinum, copper, cerium, tin or antimony. Articles manufactured from it on a laboratory scale are marked by high microhardness, good resistance to abrasion, and high mechanical strength. This material shows a strong tendency to crystallize at temperatures below the softening point. Irradiation with UV, followed by thermal treatment, tends to lower the crystallization temperature and raise the microhardness. Crystallization of "agalit" increases its bend strength and microhardness. Mechanical characteristics and methods of treatment are described. Orig. art. has: 2 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 008/ SOV REF: 006.
ATD PRESS: 5111

Card 1/1

PAMELKI EWICZ, J.; NOWAKOWSKA, K.

Precursors in biosynthesis of cyanocobalamine nucleotides.

II. Synthesis of new derivatives of vitamin B12. Acta biochim. polon. 2 no.3:259-278 1955.

1. Z Zakładu Biochemii Żywności WSR w Poznaniu Katedra Techn. Rolnej. Kierownik Katedry prof. dr. J. Janicki.

(NUCLEOTIDES, synthesis,
cyanocobalamine nucleotide. (Pol))

(VITAMIN B12, derivatives,
cyanocobalamine nucleotide, synthesis. (Pol))

NOWAKOWSKA, K

4150. Preparation of vitamin B₁₂ in concentrates and crystalline form from sewage by methano fermentation. G. Ganicz, G. Pawelkiewicz, and K. Nowakowska *Acta biochim. polon.* 1956, 3, 161-170 (Chair of Agricultural Technology, Inst. of Food Biochem., W.S.R., Poznan, Poland).--Sewage was heated to 80-90° at pH 6-7 in the presence of NaCN. Colloids were pptd. with potassium

aluminum sulphate and vitamin B₁₂ was adsorbed on activated carbon and subsequently eluted with aq. acetone. 10 mg of the vitamin were obtained from 100 l. of sewage. To determine the amount of B₁₂ in concentrates it was first separated by paper electrophoresis from interfering cobalamines and then estimated spectrophotometrically at 550 mμ. A number of cobalamines, one in cryst. form, were also obtained. (Polish)

A. K. Gozdzowski

NOJAKOWSKA, K,

Obtaining vitamin B12 with proten. IV. The purification and properties of the vitamin B12-protein complex erythroglubulin in bovine blood serum. p. 171. ACTA BIOCHIMICA POLONICA. Warszawa. Vol. 3, No. 2, 1956.

SOURCE: East European Accessions List (E.E.A.L) Library of Congress
Vol. 5, No 11, August 1956.

JANICKI, Jozef; BLOCINSKA, Teresa; NOWAKOWSKA, Krystyna

Activity evaluation of lipoxidase in samples of soya and wheat. Roczniki Wyz Szkola Rol Poznan no.13:251-263 '62.

1. Katedra Technologii Rolnej, Wyzsza Szkola Rolnicza, Poznan.

Nowakowska, M.

Poland /Chemical Technology. Chemical Products
and Their Application

I-32

Food industry

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32977

Author : Nowakowska M., Rozycki L., Skiba A.

Title : Freezing and Refrigeration Storage of Bakery
Products

Orig Pub: Przem. spozywczy, 1955, 9, No 7, 292-293

Abstract: It was found that frozen bread retains all the
properties of fresh bread. Acidity and poros-
ity of the bread remain unchanged at any tem-
perature. Moisture content and weight undergo
changes only during the first 24 hours, and on
subsequent storage, at - 10°, - 15° and - 20°,

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Poland /Chemical Technology. Chemical Products
and Their Application

T-32

Food industry

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32977

remain the same. To freeze and store the
bread a temperature of -10° is sufficient.
It is recommended to defrost bread at $+15^{\circ}$
for 6-8 hours.

Card 2/2

NOWAKOWSKA, M.; DAHLIG, W.; PASYNKIEWICZ, S.; SZEWCZYK, H.

Copolymerization of ethylene with acrylonitrile. Polimery
tworz wielk 9 no.12;516-520 D '64.

1. Institute of Heavy Organic Synthesis, Blachowina Slaska
(for Nowakowska and Szewczyk). 2. Department of Organic
Technology I of the Warsaw Technical University (for Dahlig
and Pasynkiewica). Submitted May 15, 1964.

OBLOJ, Jozef; NOWAKOWSKA, Maria; BEDNARCZYK, Julita

Studies on the influence of certain impurities of ethylene upon its polymerization process without pressure. ~~Polym~~ chem 39 no.5: 269-272 My '60.

1. Zaklad Olefin, Instytut Ciezkiej Syntezy Organicznej, Blachownia Slaska.

P/014/61/040/005/002/002
D227/D305

AUTHORS: Obłój, Józef, Nowakowska, Maria, and Bednarczyk, Julita

TITLE: Effects of impurities on the polymerization of ethylene without pressure

PERIODICAL: Przemysł chemiczny, v. 40, no. 5, 1961, 269-272

TEXT: The effects of C_2H_2 , O_2 , CO , CO_2 , Et_2O and moisture impurities were studied to determine the permissible concentrations of these compounds when polymerization is catalyzed by organometallics. Very little data are to be found in pertinent, technical literature. According to K. Ziegler (Ref. 1: Die Makromolekulare Chemie (Macromolecular Chemistry), 18/19, 186, 1956), organometallic catalysts are poisoned by CO and C_2H_2 ; D.S. Breslow (Ref. 2: J.A.C.S., 79, 5072, 1958) using dicyclopentadienyl dichloro-titanium/diethyl chloro-aluminum as catalyst found that traces of oxygen facilitate polymerization of ethylene, and A.V. Topchiyev, B.A.

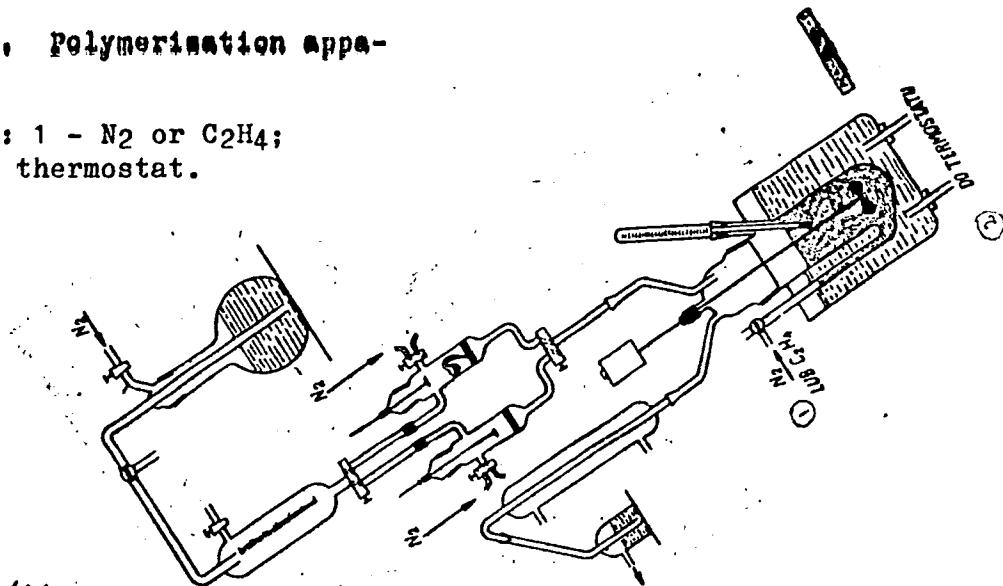
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Effects of impurities on ...

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Fig. 1. Polymerisation apparatus.

Legend: 1 - N₂ or C₂H₄;
2 - to thermostat.



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D227/D305

Krentsel', and L.G. Sidorova (Ref. 3: DAS USSR, 128, 732, 1959) discovered a similar effect with propylene and a $\text{Al}(\text{Et})_3/\text{TiCl}_4$ catalyst. Organic derivatives of aluminum are attacked by moisture and oxygen. The apparatus employed in the present work is shown in Fig. 1. Standard ethylene, ($\geq 99.0 \text{ C}_2\text{H}_4$, $< 0.01 \text{ O}_2$, 0.0095 CO , $< 0.001 \text{ C}_2\text{H}_2$, ≤ 0.02 ethers and $\leq 0.045 \%$ of water, by weight), was mixed with each impurity in turn and passed into the polymerizing chamber containing a solution of the catalyst ($\text{Al}(\text{Et})_2\text{X}$ and TiCl_4 , where $\text{X} = \text{Cl}$ or Br) in benzene. The molar ratio $\text{Al}:\text{Ti}$ was chosen to yield polyethylene with a reduced viscosity value ($\eta_{\text{red.}}$) equal to 2X . $\eta_{\text{red.}}$ is defined by

$$\eta_{\text{red.}} = \frac{\eta_{\text{solution}} - \eta_{\text{solvent}}}{\eta_{\text{solvent}} \cdot C}$$

where $C =$ concentration in $\text{g}/100\text{ml} = 0.5$. The overall concentration of the catalyst was $0.18 - 0.50 \%$ by weight. The qualities measured were the decrease in $\eta_{\text{red.}}$, changes in polymer yield and

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the relative consumption of catalyst, \underline{a} , defined by the ratio of catalyst consumption in the particular experiment to that in polymerization of standard ethylene without any additions. The effect of acetylene impurities was studied in two series of experiments, varying concentration of the catalyst and the ratio $\text{Al}(\text{Et})_2 \text{Br} : \text{TiCl}_4$. Catalyst consumption increases gradually with increasing C_2H_2 content, while η_{red} falls rapidly for up to 0.066 % C_2H_2 (by 63 %) and is little affected thereafter. The results are shown in Table 1 and Fig. 2. Effects of oxygen were studied with an 0.5% solution of the catalyst (by weight) and $\frac{\text{Al}}{\text{Ti}}$ equalled 1.7 moles/mole

(Table 1 and Fig. 3). Up to ~ 0.066 %, oxygen has little effect on \underline{a} , but the latter increases considerably at 0.24 % O_2 and at 0.66% O_2 the reaction is practically inhibited. η_{red} decreases more slowly than with increasing acetylene content. From Table 1 and Fig. 4 it may be seen that pure, dry carbon monoxide has practi-

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Effects of impurities on ...

Table 1.

Legend: 1 - Series; 2 - impurities in ethylene; 3 - type; 4 - amount (wt. %); 5 - yield of polymer g; 6 - relative consumption of catalyst a; 7 - η red.; 8 - remarks; 9 - acetylene; 10 - acetylene; 11 - oxygen; 12 - carbon monoxide; 13 - carbon dioxide; 14 - catalyst concentration = 0.5% by wt.; 15 - catalyst concentration = 0.18% by wt.; 16 - ratio Al : Ti = 1.3 : 1.

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① Seria	② Zanieczyszczenia etyleny rodzaj		③ Złoc produktu g	④ Względna złotyca kataliza- toru a	⑤ η red.	⑥ Uwagi
	⑦ % wag.	⑧ % wag.				
1	acety- len ⑨	< 0,01	10,0	1,0	2,28 0,68 0,28 0,33	⑩ stężenie kat. 0,5% wag.
2	acety- len ⑩	< 0,01	13,5	1,0	2,80	⑪ stężenie kat. 0,18%
3	Ulen ⑪	< 0,01	18,7	1,22	1,28 0,91 0,68 0,66	
4	Ulenek wegla ⑫	0,01 0,10 0,27 1,06 1,43	19,9 21,2 9,8 0,48 0,23	1,0 1,23 1,28 19,5 20,5	2,26 2,31 1,08 1,48 1,57	
5	dwu- lenek wegla ⑬	0,005 0,10 0,27 1,06 1,43	9,2 12,3 8,4 2,33 1,70	1,0 1,05 2,16 2,92 6,07	2,26 2,30 1,81 1,31 1,31	⑭ stężenie Al : Ti = 1,3 : 1

Effects of impurities on ...

Fig. 2. Effect of acetylene on the polymerization of ethylene.

Legend: 1 - Relative consumption of the catalyst for the first series of experiments; 1a - reduced viscosity for the first series of experiments; 2 - relative consumption of catalyst for the second series of experiments; 2a - reduced viscosity for the second series of experiments; 3 - % acetylene; 4 - η red.

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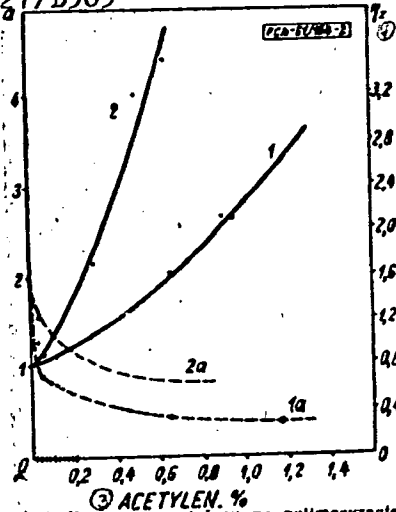


Fig. 2.

Ⓢ ACETYLEN. %
Rys. 2. Wpływ acetyleny na polimeryzację etyleny; 1 - zużycie katalizatora w stosunku do zużycia katalizatora na standardowym etylenie pierwszej serii prób, 1a - lepkość zredukowana w pierwszej serii prób, 2 - zużycie katalizatora w stosunku do zużycia katalizatora na standardowym etylenie w drugiej serii prób, 2a - lepkość zredukowana w drugiej serii prób

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Effects of impurities on ...

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Fig. 3. Effect of oxygen on the polymerization of ethylene.

Legend: 1 - Relative consumption of catalyst; 1a - reduced viscosity; 2 - % oxygen; 3 - η red.

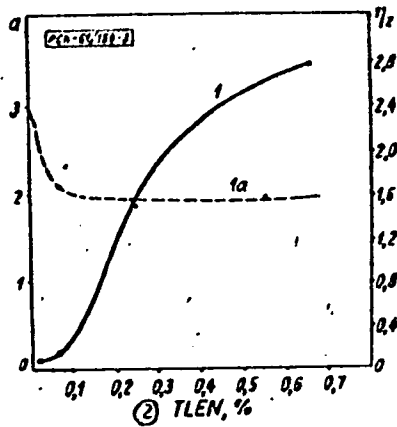


Fig. 3.

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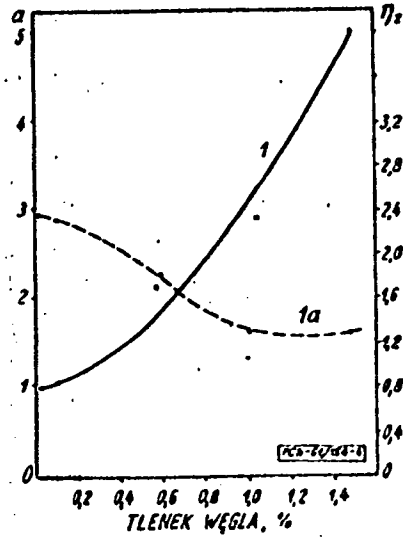
Effects of impurities on ...

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Fig. 4. Effect of carbon monoxide on the polymerization of ethylene.

Legend: 1 - Relative consumption of catalyst; 1a - reduced viscosity; 2 - % CO; 3 - η_{red} .

Fig. 4.



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Effects of impurities on ...

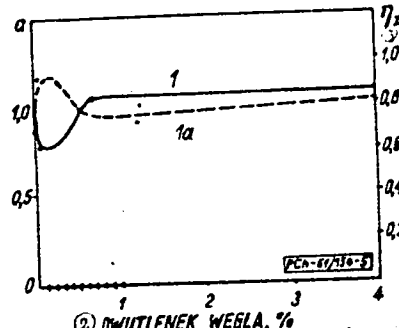
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D227/D305

cally no effect on a or η red. within the limits of 0.01 - 0.1 %. On increasing the CO content to 0.57 % a is doubled and η red. falls by 23 %. High concentrations of CO (1.5 %) increase a by a factor of 5 but do not inhibit the polymerization. Carbon dioxide had no effect on a and η red., although the reaction appeared to be facilitated at 0.66 % CO_2 (Fig. 5).

Fig. 5. Effect of carbon dioxide on the polymerization of ethylene.

Legend: 1 - Relative consumption of catalyst; 1a - reduced viscosity; 2 - % CO_2 ; 3 - η red.

Fig. 5.



(2) DWUTLENEK WĘGLA. %
Rys. 5. Wpływ dwutlenku węgla na polimeryzację etylenu; 1 - zużycie katalizatora w stosunku do zużycia katalizatora na standardowym etylenie, 1a - lepkość zredukowana

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Effects of impurities on ...

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The effects of diethyl ether are shown in Fig. 6

Fig. 6. Effect of ether on the polymerization of ethylene.

Legend: 1 - Relative consumption of catalyst; 1a - reduced viscosity; 2 - % ether; 3 - η red.

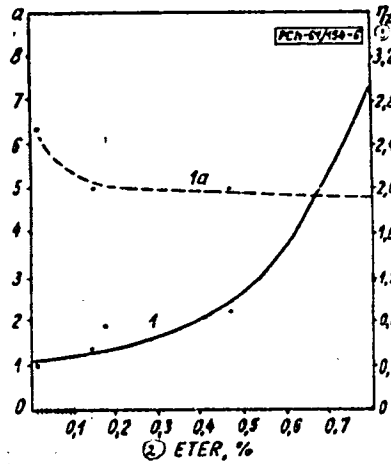


Fig. 6.

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Rys. 6. Wpływ eteru na polimeryzację etyleny; 1 - zużycie katalizatora w stosunku do zużycia katalizatora na standardowym etylenie, 1a - lepkość zredukowana

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Effects of impurities on ...

and summarized in Table 2.

Table 2.

Legend: 1 - Series; 2 - impurities in ethylene; 3 - type; 4 - amount, mg/l - % wt.; 5 - yield of polymer g; 6 - relative consumption of catalyst a; 7 - η_{red.}; 8 - remarks; 9 - ether; 10 - water; 11 - sample turned green.

Tablica 2

Seria	Zanieczyszczenia etylenu		Ilość produktu	Względne zużycie katalizatora	η _{red.}	Uwagi
	rodzaj	Ilość mg/l % wag.				
1	Eter	0,25	0,02	6,7	1,0	2,57
		1,92	0,15	5,2	1,35	2,03
		2,25	0,10	4,8	1,83	2,01
		5,91	0,47	4,5	2,30	1,99
		10,28	0,82	1,2	7,73	1,89
		12,95	0,92	ślady		
2	Woda	0,56	0,045	7,6	1	1,66
		2,22	0,178	1,25	5,61	1,11
		4,03	0,324	1,25	5,82	1,19
		4,31	0,345	1,19	6,22	1,11
		9,8	0,783	1,18	6,22	0,80

Table 2.

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Effects of impurities on ...

The relative consumption of the catalyst is practically unaffected by $\sim 0.1\%$ but is doubled by 0.18% Et_2O , and 0.8% ether stopped the reaction. Reduced viscosity decreased only slowly with increasing ether content (by 24% at 0.82% Et_2O). Quadrupling the moisture content of ethylene raised \underline{a} by a factor of 5 and reduced η red. by 30% (Table 2 and Fig. 7), as well as promoting ash formation with the polymer. The authors admit that the results of Breslow (Ref. 2: Op.cit.) and Topchiyev (Ref. 3: Op.cit.) have not been confirmed, possibly due to differences in the monomers, catalysts and methods. Catalyst concentrations within $0.18 - 0.50\%$ by weight are sufficient to polymerize ethylene efficiently, even in the presence of 0.01% C_2H_2 , 0.02% O_2 , 0.1% CO , 0.15% ethers and 0.05% of water.

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Effects of impurities on ...

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Fig. 7. Effect of water on the polymerization of ethylene.

Legend: 1 - Relative consumption of catalyst; 1a - reduced viscosity; 2 - % water; 3 - η red.

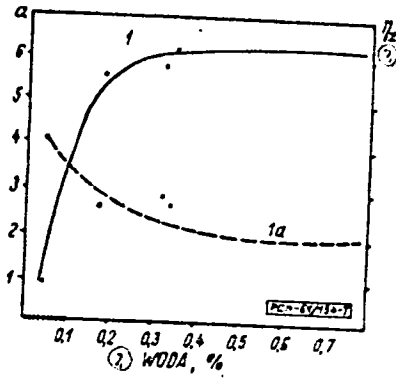


Fig. 7.

Rys. 7. Wpływ wody na polimeryzację etylenu; 1 - zużycie katalizatora w stosunku do zużycia katalizatora na standardowym etylenie, 1a - lepkość zredukowana

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Effects of impurities on ...

P/014/61/040/005/002/002
D227/D305

There are 2 tables, 7 figures and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: D.S. Breslow, J. Am. Chem. Soc., 79, 5072 5072, 1958.

ASSOCIATION: Zakład olefin instytutu ciężkiej syntezy organicznej,
blachownia Śląska (Olefin Department of the Heavy
Organic Synthesis Institute, Silesia Sheet-Iron Works)

Card 14/14

NOWAKOWSKA, Maria; DAHLIG, Wlodzimierz

Research on the possibilities of copolymerization of ethylene with acrylonitrile on organometallic complexes. Polimery 7 no.4:125-128
Ap '62

1. Instytut Cieskiej Syntezy Organicznej, Blachownia Slaska (for Nowakowska). 2. Zaklad Technologii Organicznej I., Politechnika, Warszawa (for Dahlig).

NOWAKOWSKA, Maria, mgr.

Problems connected with the copolymerization of ethylene with some unsaturated compounds catalyzed by organometallic complexes. Wiad chem 16 no.5:307-319 My '62.

1. Kierownik pracowni polimerow, Instytut Ciezkiej Syntezy, Organicznej, Blachownia Slaska.

Nowakowska, T.

HENNER, F.; NOWAKOWSKA, T. "Problems of planning and accounting in an establishment; an attempted synthesis."

Chemik, Ka towice, Vol 7, No 1, Jan 1954, p. 15

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress