

Nowotny, FRANCISZEK

744 ✓ Biochemical problems in food technology. Franciszek Nowotny. *Polska Akad. Nauk, Zeszyty Problem. Nauki Polskiej* 2, 5-18 (1954).—Biochem. reactions of interest to a food technologist are those occurring in the living tissue, in the dead tissue, and outside of the tissue under the influence of secreted enzymes. The role of these reactions and their control are discussed and illustrated with examples from the fermentation industry. Alina S. Szezesniak

Nowotny, F.

Poland / Chemical Technology. Chemical Products
and Their Application

7-31

Fermentation industry

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32860

Author : Nowotny Franciszek, Kujawski Maciej

Title : Development of a Method for the Production of
"Hybrid Malt".

Orig Pub: Przem. spozywczy, 1955, 9, No 7, 304

Abstract: A brief presentation of the results of experi-
ments on breaking up of starch by "fungus malt"
obtained by cultivation of specific mold fungi.
A species of mold has been segregated which en-
sures maximum yields of enzyme using agricultural
waste as nutrient medium. Optimal duration of
the process has been determined. In comparison

Card 1/2

Poland /Chemical Technology. Chemical Products
and Their Application

I-31

Fermentation industry

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32860

with barley malt the amylolytic capacity of
the preparation obtained is of 86.5%. Degree
of saccharification (in g maltose / 1 g malt)
of starch is lower during the first hours, and
at the end of the process it is higher than that
of malt.

Card 2/2

NOWOTNY, F.

Faculty of Agricultural Technology at the Higher Agricultural
School in Krakow. Przem spoj 15 no.10:46-48 '61.

NOWOTNY, Franciszek, prof. dr

Scientific and teaching activities of the Department of Agricultural
Technology of the School of Agriculture in Krakow. Przem ferment
1 rol 8 no.3:125-128 Mr '65.

1. Head, Department of Agricultural Technology of the School of
Agriculture, Krakow.

NOWOTNY, Gustaw

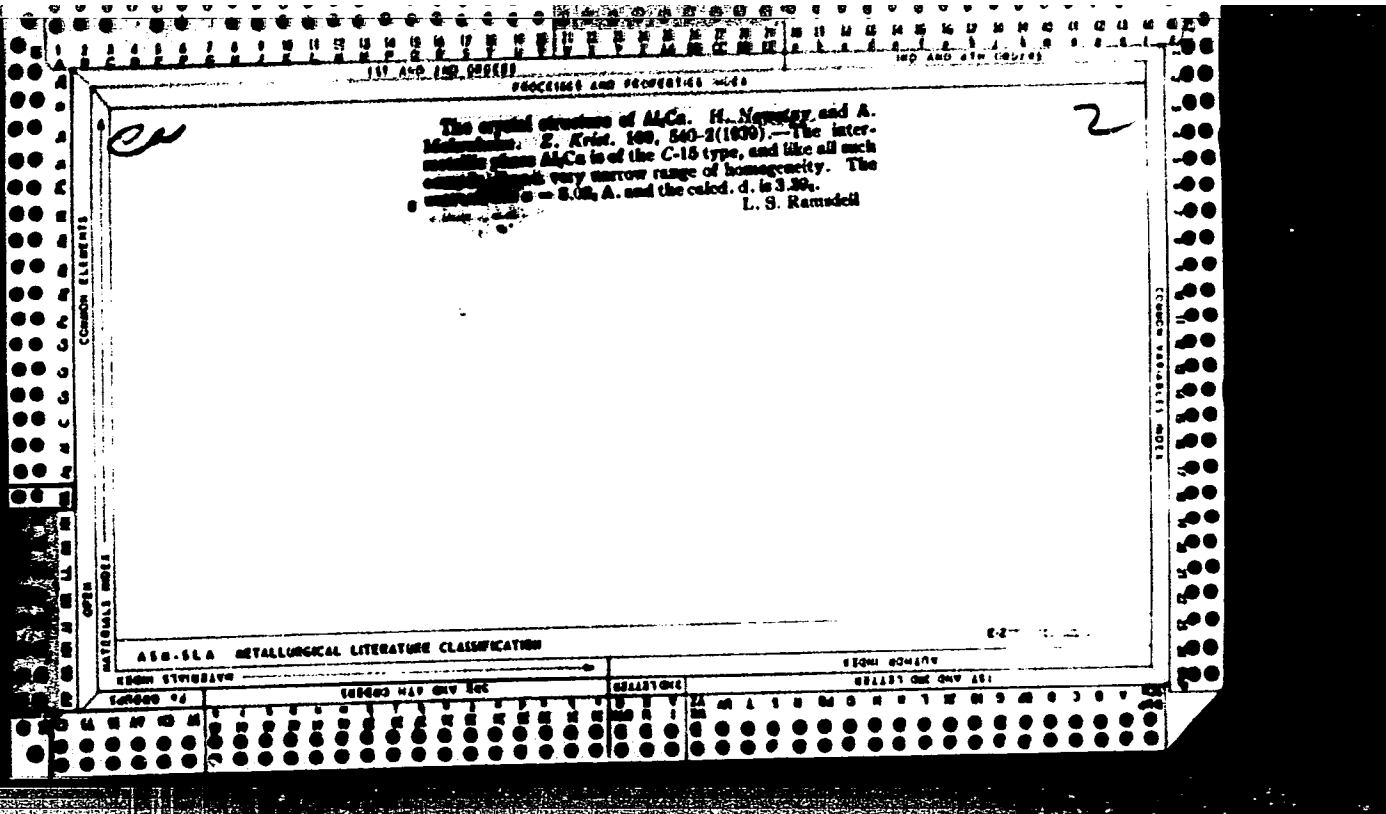
KOLODZIEJ, Josef; ~~NOWOTNY, Gustaw~~

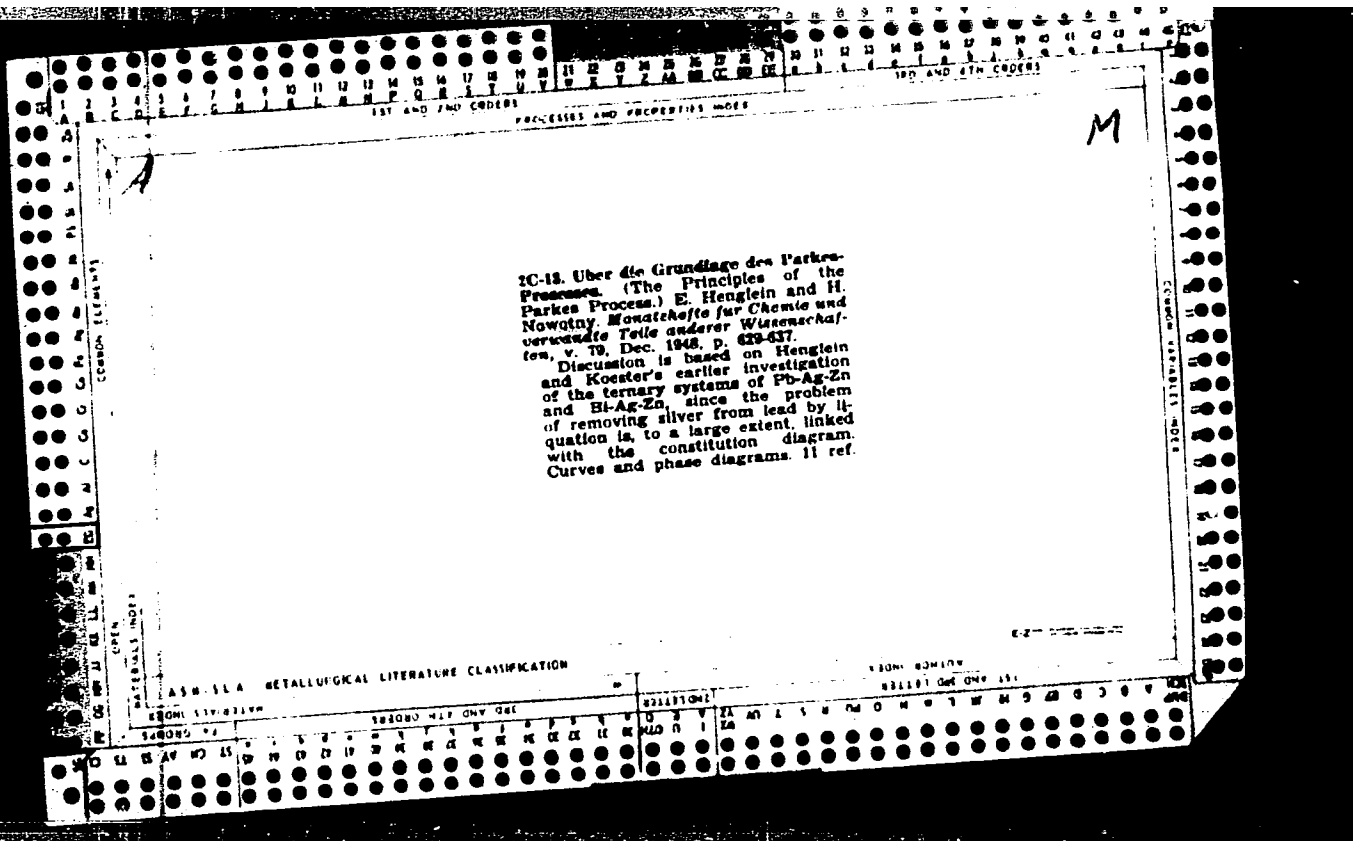
Local penicillin therapy of paronychia. Polski tygod. lek. 9 no.13:
395-398 29 Mar 54.

1. Z I Kliniki Chirurgicznej A.M.w Poznaniu, dyrektor: prof. dr
St.Nowicki.

(PARONYCHIA, therapy,
penicillin)

(PENICILLIN, therapeutic use,
paronychia)





5

C

Manufacture of colored glass. J. NOWOTNY AND W.
NOWOTNY. *Przemysl SzklarSKI*, 1949, No. 8-9, pp. 10-12.
No. 10-11, pp. 17-22; No. 12, pp. 2-8. *Polish Tech Abstracts*,
1951, No. 1, pp. 99, 101. --A formula and detailed specifications for
the melting of colored glass, based on the extensive experience of
the authors, are given.

CA

9

Microscopical studies of aluminum foils. Hans Ko-

watny and Lindholm Holik. *Mikroskop* 8, 31 0(1920).
Al foils are etched with HCl, before anodic oxidation, for
use in electrolytic condensers. Small acids of impurities,
specially Fe, affect the surface structure and performance.
C. W. Mason

6

C 11

The compounds $LiMgP$, $LiZnP$, and $LiZnAs$. H. Nitschky and K. Bachmayer (Univ. Vienna). *Monatsh.* 81, 184 (1950). See C.I. 44, 2102a. Peter M. Bernays

CA

The ternary system copper-germanium-silver. II. Nowotny and K. Bachmayer (Univ., Vienna). *Monatsh.* 81, 669-78 (1950).—The phase diagram of the system Cu-Ge was redetd. and the results of Weibke (*C.A.* 30, 7524*) were confirmed. The lattice constants of the β -phase Cu₂Ge were remeasured. Contrary to Gokhschmitt (*C.A.* 28, 1787), it was found that Cu₂Ge is not a pure A₁ type. This phase can be explained as a weak monoclinic distortion of the hexagonal condensed packing. In the α -range of the system Ag-Ge, a slight lattice widening was found. The basic structure of the ternary system Cu-Ge-Ag was ascertained. A ternary intermetallic compound did not occur. There will probably be established two ternary eutectics and two ternary peritectics. Corrosion examn. of the alloys of the α -range of the system Cu-Ge, Ag-Ge, and Cu-Ge-Ag, shows no improvement over the pure metals. M. Steinberg

1951

Nowotny, H.

PAK
HG
The Crystal Structure of PdZn. H. Nowotny and H. Bittner ~~Zeitschrift für anorganische Chemie~~ 1950, 81, 679-680; C. Abs., 1951, 45, 3217. —X-ray powder-diagram data for the PdZn alloy heated to 650° C. and recrystallized are tabulated. The indexes indicate a b.c. tetragonal cell structure of the L₁ type; d = 10.1 g./c.c.

of Sm J ①

C.A.

1

The determination of the vapor-pressure equilibrium from the total pressure (binary azeotrope; ternary mixt.). II.

Snowton and A. F. Orlow (Univ., Vienna). *Monatsh.* 81, 791-7(1950); cf. C.A. 44, 306. -The Gibbs-Duhem equation is integrated exactly by a graphical method. A stepwise integration allows the application of the graphical method to ternary mixts. Alfred J. Moses

EA

2

The problem of anomalous diamagnetism. H. Newkirk and H. Bittner (Univ. Vienna). *Monatsh.* 81, 887-906 (1950).—An outline of the theory of anomalous diamagnetism and a summary of the published investigations on its occurrence in the Hume-Rothery- γ phases is followed by the details of the preparation and composition of binary alloys of Cu with Zn, Cd, Hg, Sn, Pb; of Ag with Zn, Cd, Al; of Au with Zn; of Ni with Zn, Cd; of Mn with Zn; of Pd with Zn, Cd; and of Pt with Zn, Cd. The variation of χ with composition in each of these series was investigated by using a modified Weiss-Foerster method. The reliability of the method was tested by measurements of the susceptibilities of a no. of the pure metals and comparison of the results with previous values, as shown in the table which gives $\chi \times 10^6$ at 30°.

Metal	Present results	Literature values	
		most recent	older work
Cu	-0.08	-0.080	-0.086
Au	-0.11	-0.139	-0.118
Mn	+10.8	+9.60	+7.35, +20
Pd	+6.42	+5.32	+5.15
Pt	+1.36	+0.962	+1.10
Si	-0.19	-0.13	-0.143
Zn	-0.17	-0.1746	-0.167, -0.183
Cd	-0.15	-0.1741	

The results for the various series of alloys are presented as graphs, giving χ as a function of % composition of one of the metals, and the interpretations of these are discussed in some detail. In general most H.-R.- γ phases show anomalous diamagnetism. The work of N. and B. confirmed this, as shown by previous investigations, for Cu-Zn, Cu-Cd, Cu-Sn, Ni-Zn, Ag-Zn and Ag-Cd. Further, they now demonstrate that the H.-R.- γ phases of Ni-Cd, Pd-Cd, and Pt-Zn show anomalous diamagnetism. They also demonstrate it for Cu-Si and Ag-Al, which are β -Mn-type phases, and for the ϵ phase in the Pt-Cd and Cu-11g series that the H.-R.- γ phases in the Cu-Si system. They also showed that the H.-R.- γ phases and confirm the ferromagnetism of the hexagonal close-packed ϵ phase for the system Mn-Zn. In the Pt-Zn and Pd-Zn systems, strongly paramagnetic compounds were found in the immediate vicinity of the anomalously diamagnetic H.-R.- γ phase. In general with increasing at. wt. of the metal concerned, the anomalous diamagnetism was diminished. W. W. Stiller

1957

CA

2

The crystal structure of $PtZn$, $PtCd$, and $PdCd$. H. Moosmayr, E. Bauer, and A. Stempel (Univ. Vienna). *Monatsh.* 81, 1194(1950); cf. *C.A.* 45, 3217c.—The listed compounds crystallize with an L1₂-type lattice having the following constants: $PtZn$ $a = 4.14$, $c = 3.50$ kX, $c/a = 0.846$; $PtCd$ $a = 4.34$, $c = 3.91$ kX, $c/a = 0.922$; $PdCd$ $a = 4.31$, $c = 3.65$ kX, $c/a = 0.847$.
George G. Cocke

2

CA

The crystal chemistry of alloys. H. Nowotny (Univ., Vienna). *Berg. u. hüttenwiss. Monatsh. in Wien Hochsch. Leiden* 98, 100-15(1960).—The binding forces within the lattice structure of alloys are discussed and compared with those in typical salt structures. The importance of the valency of the constituents in contributing to these forces is explained by the phases forming in the alloys. Several examples are given. M. Hartenstein

Chemistry & Physics

'Bcs

2015. A study of the system $Al_2O_3-Fe_2O_3-SiO_2$.—H. Nowotny and R. Fink (*Radex-
Zsch.*, No. 8, 334, 1951). The binary systems $Al_2O_3-Fe_2O_3$ and $Fe_2O_3-SiO_2$ were
examined by X-rays; in the first case, formation of solid solns. on either side of the
system was established whose miscibility limit has been ascertained at 1,000° C. and/or
approx. 1,700° C. In the second case, the two oxides co-exist unchanged. The ternary
system is determined by the phases appearing in the adjacent systems. No ternary cpd.
was found, and the ferromagnetic $\alpha-Fe_2O_3$ appeared repeatedly and was examined
more closely. It has been revealed that the ferromagnetism originates in $\alpha-Fe_2O_3$
that liberated some oxygen directly prior to transition into Fe_3O_4 . This finding is in
harmony with Noel's theory concerning ferromagnetic $\alpha-Fe_2O_3$. The Curie points
of the ferromagnetic tests measured, whose comp. lies partly within the binary systems
 $Al_2O_3-Fe_2O_3$ and $Fe_2O_3-SiO_2$, partly within the ternary system, confirm the structure
established by X-ray. (6 figs., 2 tables.)

NOWOTNY, H.

2

~~Investigations into the System Titanium-Antimony. H. Nowotny and J. Peal (Monatsh., 1951, 82, 338-343; C. Abstr. 1951, 82, 6884).—The system Ti-Sb has been studied up to 60 wt.-% Ti by X-rays and thermal analysis. It is found that Ti is virtually insoluble in Sb, and that homogeneous phases of compn. TiSb₃ and TiSb are formed. The crystal structures of these phases are given. At least one other solid phase richer in Ti is also formed. On the Sb side, the phase diagram resembles that of Cr-Sb.~~

Nowotny, H.

Investigations into the System Titanium-Lead. II.
Nowotny, H. J. Phys. Chem., 1951, 55, 344-347; C. Abstr.,
1951, 45, 6984.—An X-ray study of the system Ti-Pb shows
the formation of only one compound, of compn. Ti₃Pb or
Ti₂Pb. Its structure is discussed, with ref. to that of related
compounds.

79

2

Crystal chemical studies in the systems Mn-As, V-Sb, Ti-Sb. H. Nowotny, R. Funk, and J. Fed (Univ. Vienna). *Monatsh.* **82**, 513-26 (1951).-- Mn_2As occurs in alloys contg. 50.5-72.5% Mn. Leaflike single crystals were isolated from the 72.5% alloy. The cell is pseudotetragonal orthorhombic, $a = b = 3.780$, $c = 16.2$, kX and contains 4 Mn_2As . The space group is D_{2h}^2 , the 2a points for the 3 Mn lying at $s = 0.193$, -0.193 , -0.434 and the As at $s = 0.409$; the corresponding 2b points are $s = 0.306$, -0.306 , -0.066 , 0.066 . The shortest distances are Mn-Mn 2.71 and Mn-As 2.80 Å. V_2Sb_3 of C_{16} type, isomorphous with Ti_2Sb_3 , has an extraordinarily high calcd. d. of 8.13. $a = 0.54$, $b = 5.62$, kX; V-V 2.81, V-Sb 2.83, Sb-Sb 2.92 Å. In an alloy contg. 61.0% Ti a Ti_2Sb_3 phase can be identified. $a = 2a' = 5.946$, $c = 4.798$ kX, calcd. d. 5.66. The space group is D_{2h}^2 , interat. distances 2.95 or 2.97 Å., formula $Ti_2(Ti_2Sb_3)_2$. David Lewis

CR

Crystal structures of AgZnAs and NaZnAs. H. Negrutny and B. Gistel (Univ. Vienna). *Monatsh.* 83, 720-2 (1951).
 Both AgZnAs and NaZnAs are valence compds. with the fluorite structure. The lattice const. as detd. from x-ray powder diagrams are $a_0 = 3.900 \text{ \AA}$ for both face-centered cubic substances. The value of d is 3.20 g./cc. with 4 formula wts./unit cell. The As atoms are in the 4(a) positions, and the Na and Zn atoms in the 4(c) and 4(d) positions for the NaZnAs. For the AgZnAs the Ag atoms are in the 4(a) positions and both the Zn and As atoms are in the 4(c) and 4(d) positions. NaZnAs has the C₂v type structure with the electrons. As located between Na atoms on one side and Zn atoms on the other side, whereas AgZnAs has the same at. arrangement as CuMgSb, or the C_{2v} type structure. The interat. distances are: (Ag,As)-Zn = 2.66 \AA. and (Na,Zn)-As = 2.55 \AA. Gilbert R. Klein

CA

2

The system palladium-cadmium. H. Nowotny, A. Sempfl, and H. Bittner (Univ. Vienna). *Monatsh.* **82** 949-58(1951).—The phase diagram of the system Pd/Cd was detd. by thermal, microscopic, x-ray, and magnetic analysis. At 750° up to 20 at. % Cd is sol in Pd. A tetragonal, diamagnetic δ -phase, type $L1_0$, exists between 34 and 40, a Hume-Rothery diamagnetic γ -phase between 80 and 82 at. % Cd. A cubic body-centered structure at 60 at. % Cd decomps. below 325° into the γ' and δ -phase. Lattice consts. of the defined structures are given. R. N.

CA

2

The system palladium-zinc H. Nowotny, E. Bauer, and
A. Stempel (Univ. Vienna). *Monatsh.* **82**, 1086-1091 (1951).
cf. C.A. **45**, 3217. The phase diagram of the system Pd-Zn
was detd. by thermal, microscopic, x-ray, and magnetic
analysis. At 750° up to 10 at. % Zn is sol. in Pd. A δ -
phase, type L1₂, exists between 34 and 40, a Hume-Rothery
-phase between 80 and 85 and a ϵ -phase (PdZn₁₁; related
to the A3 type) at 92.5 at. % Zn. Rudolf Nitsche.

9

CA

The structure of the carbide system TiC-TaC-WC.
H. Niggli, R. Kieffer, and O. Knotek (Univ. Vienna).
Berg.-u. hüttenwiss. Monatsh. monist. Hochschule Leoben
90, 6-9 (1951).—The quaternary carbide system was in-
vestigated between 1450 and 2200° micrographically and
with x-rays. Hard alloys of this compn. consist merely of
an extensive homogeneous field of a (Ti, Ta, WC) solid soln.
and a heterogeneous field of this met. solid soln. and prac-
tically pure WC. The homogeneity border moves with

higher temp. in the direction of a greater soln. of the WC
in the gapless solid soln. series TiC-TaC. At higher TiC +
TaC contents the WC crystals no longer form a continuous
skeleton but are loosely embedded in the solid soln. phase.
M. Hartenstein

CA

2

The ternary system: aluminum-iron-silicon. H. Nodny, K. Komarek, and J. Kratoch (Univ. Vienna). *Berg. u. Huttenmann. Monatsh. naturg. Hochschule Leoben* 90, 161-9 (1951).-- Because of its industrial importance the Al corner of the diagram of state up to 45% Fe and 30% Si in 150 alloys was thoroughly examined, thermodynamically, microscopically, and by x-rays. In this range there are at least 4 ternary phases designated by α (Fe-Si), β (Fe-Si), γ (Fe-Si), and δ (Fe-Si). The first 3 have the approx. formulas $Al_2Fe_3Si_4$, Al_2FeSi_2 , and $Al_2Fe_2Si_3$ or a multiple, resp. The homogeneous ranges are small. In the ternary eutectic δ (Fe-Si) participates along with $Al + Si$, but not γ (Fe-Si), which is designated in the literature as Al_2FeSi_2 . The tetragonal symmetry of γ (Fe-Si) is confirmed; the crystal type is holoedric, and there exists a great structural similarity between Al_2Fe , Al_2Fe_2 , and α (Fe-Si). The phases Al_2Fe and γ (Fe-Si) have an extraordinary crystallizability which sometimes suppresses the α - and β -phases entirely. In the range of higher Fe and Si contents another crystal type occurs, α (Fe-Si) besides δ (Fe-Si). 31 references. M. Hartsheim

9

CA

Structure of the aluminum corner of the system aluminum iron silicon. I. Holik, H. Nowotny, and W. Thury (Univ. Vienna). *Ber. u. Kolloidchem. Monatsh. Chem. Hochschule Leoben* 90, 181 (1951). In a study of the different phases occurring in the Al corner, 200 alloys were made of pure constituents containing up to 40% Fe and 40% Si (the impurities of Cu, Mn, Mg, Zn, Ca, and Pb did not exceed 0.001%). The range of the Al solid solution and the phases of low Fe-Si content were exactly determined and are shown in the Al-Fe-Si diagram of state. M. Hartenbaum

CA

Theory of plastic deformation. P. Vitovec and H. Noj-
wotny. (Tech. Hochschule, Vienna). *Z. Physik* 131, 41-7
(1931).—The dynamic plasticity equation of Becker (C.A.
10, 3182) is in disagreement with exptl. results. However,
by substituting in Becker's expression of the threshold energy
the differences between the energies corresponding to theo-
retical internal energy and to applied tension for the ten-
sions themselves an equation is obtained that represents
the exptl. data very well over an extended temp. region.
James L. Lauer

The systems platinum-zinc and platinum cadmium. H. Nowotny, E. Bauer, A. Stempel, and H. Hattner (Univ. Vienna) *Z. Metallk.* **63**, 221-269 (1952).—The systems Pt-Zn (I) and Pt-Cd (II) were studied by microscopic, x-ray, magnetic, and thermoanalytical techniques, and the phases existing in the solid state after high-temp. quenching were detd. In both systems there is a marked solub. of Zn or Cd in solid Pt. In I there was found a phase of the compn Pt₂Zn having an f.c.c. type of structure with a lattice const. $a_0 = 3.886 \text{ \AA}$. Evidence for an analogous structure in II was obtained. PtZn₂ and PtCd₂ were found in a C32-type lattice. In I a phase PtZn₃ was found. Anomalous diamagnetism was observed in both systems. Diamagnetic susceptibilities in I were -0.2×10^{-6} e.g.s. electromagnetic units at about 62% Zn and -0.68×10^{-6} at about 90%. In II the values were $+0.1 \times 10^{-6}$ and -0.6×10^{-6} , resp. The value for both Zn and Cd was found to be -0.2×10^{-6} . Detailed compn. diagrams are given showing the regions of existence of the observed phases.

F. W. Givens

Nowotny; H.

*New Examples of Ternary Compounds with C1 Structure.
H. Nowotny and H. Glatzl (*Monatsh.*, 1962, 83, (1), 237-241).—Compounds of the type ABC (C = P, As, Sb, or Bi) with a fluorapatite type of structure have been reported. Similar phases have been found in the systems Ni-Mg-Sb, Ni-Mg-Bi, Cu-Mn-Sb, and Co-Mn-Sb, and it may be assumed that many other similar ABC compounds exist. According to the usually applied stability rule for such phases, a univalent or bivalent electropositive partner should be combined with a trivalent electronegative element. N. and G. report the results of investigations into phases of the systems Ni-Mg-Sb, Ni-Mg-Bi, Cu-Mn-Sb, and Co-Mn-Sb, all of which are shown to crystallize in the C1-type of structure with lattice constants $a_0 = 0.936, 0.164, 0.054, \text{ and } 0.88 \text{ kX}$, resp. *Q. rev.*—W. F. H.

[Handwritten signature]

NOWOTNY, H.

4

MC

The Structure of the System Zirconium-Silicon. II.
Schachner, H. Nowotny, and E. Machenschalk (*Monatsh.*,
1953, 84, 73; *Z. Metallk.*, 1961, 49, 243).—The crystal
structures of Zr_2Si_3 and Zr_3Si_4 were determined by X-ray
diffraction to belong to the D_{8h} or C_{10} space-group. The
lattice const. are: Zr_2Si_3 , $a = 7.87$, $c = 6.64$, kX , $c/a =$
 0.704 ; and Zr_3Si_4 , $a = 6.56$, $c = 6.30$, $c/a = 0.91$. In
contrast with the work of Laurin *et al.* (*Trans. Amer. Soc.*
Metals, 1953, 45, 901; see *M.A.*, 20, 629), no evidence of
 Zr_2Si , Zr_3Si_2 , Zr_2Si_2 , or Zr_3Si was obtained.

② *[Handwritten signature]*

NOV OTM, H

4

J.H.
C.H.

*Studies on (Aluminum) Foils for Electrolytic Condensers.
L. Holik and H. Novotny (*Metall*, 1954, 8, (5/6): 180-184).
Several Al foils of various thickness, but contg. varying
amounts of Fe and Si as main impurities, of differing mean
grain-size and U.T.S., and showing differing X-ray diffraction
patterns, were used in the experiments. Studies were made
of the variation of sp. elect. capacity (in $\mu\text{F}/\text{dm}^2$) in relation
to concentration, temp., time, and AlCl_3 content of the HCl
used for etching the surfaces of the foils. The results are
described at length and discussed in relation to the suitability
of the foils for use in electrolytic condensers. 7 ref.
—E. N.

BT

NOWOTNY, H.

chem ✓ Abrasion—a physicochemical problem. H. Nowotny.
Osterr. Ing.-Arch. 10, 232-9(1956).—The 2 characteristic
types of abrasion are due to dry friction and to pitting. The
role of local energy concens. and its significance for chem.
reactions are discussed. H. J. Bernstein

L

NOWOTNY, H.

7/58

12079 (German.) Preparation of Uranium Mono-Carbide
Its Behavior Compared With Other High Melting Carbides.
Über die Herstellung von Uranmonokarbid und dessen
Verhalten gegenüber anderen hochschmelzenden Karbiden.
R. Kieffer, E. Benezovsky, and H. Nowotny. *Platzberichte
für Pulvermetallurgie*, v. 5, Apr. 1957, p. 92-95.

for copy

NOWOTNY, H.

10
18 4E3d

12035* (German), Investigations of the Ternary Systems
Molybdenium-Silicon-Boron, Tungsten-Silicon-Boron and of
the System VS₂-TaSi₂. Untersuchungen in den Dreistoff-
systemen: Molybdän-Silizium-Bor, Wolfram-Silizium-Bor
und in dem System VS₂-TaSi₂. H. Nowotny, E. Dinakopou-
lou, and H. Kudielka, Monatshefte für Chemie, v. 88, no. 2,
1957, p. 180-192.

Determination of equilibrium diagrams. Properties of various
phases. 18

fra RG any

General chemistry of high melting carbides, nitrides, and
 borides. *Acta Metall.*, 8, Klatov, F. Kocumovsky, and E.
 Janda. *Acta Metall.*, 19, 33-44 (1971) (in
 German).—UC, and mixts. of UC and TiC, ZrC, VC, NbC,
 TaC, Cr₃C, Mo₂C, WC, and ThC, resp., form mixed crys-
 tals with UC. Miscibility gaps occur in the systems UC-
 TiC, and UC-VC. Double carbides are formed between
 UC and Cr₃C, Mo₂C, and WC, resp. These have D_{4h}
 symmetry, with the following values of the lattice constts.
 a, b, and c, in Å: Cr-U-C, 8.47, 8.29, 10.6; Mo-U-C,
 8.41, 8.28, 10.8; W-U-C, 8.28, 8.24, 10.9. Ti forms a
 nitride with hexagonal symmetry of the Mn₂Si type,
 whereas V, Nb, Ta, Cr, Mo, and W form nitrides of the
 W₂Si type, with tetragonal symmetry D_{4h}. All of these
 nitrides, as well as those of Zr and Hf, form ternary phases
 with C that have hexagonal, Mn₂Si, symmetry. Simi-
 larly, nitrides of Zr, V, Nb, Ta, and Cr form ternary phases
 with boron, which have hexagonal, Mn₂Si, symmetry.
 V₂B₃, Ta₂B₃, and Nb₂B₃ have the U₂Si₃ structure.

J. I. Lacey

R 21

NOWOTNY, Hans

Some problems relating to the crystal chemistry of alloys. Kem tud
kozl MTA 16 no.2:145-161 '61.

1. Egyetemi fizikai kemiai intézet, Wien.

NOWOŃNY, Silwester, mgr inż.

Problem of producing modern electric power machines and equipment
in Poland. Gosp paliw 12 no.7:234-236 J1 '64.

C

V

Proposal of a system for the classification of glass according to chemical composition. W. Nowotny. *Przemysł Szkłarski*, 1940, No. 6-7, pp. 25-27. *Polish-Tech Abstracts*, 1951, No. 1, p. 99. A most interesting "natural" classification of glass according to chemical composition, e.g., CaNa - normal glass, Plim Dal crystal glass, AlBoNa - heat resistant glass, etc., is presented.

U

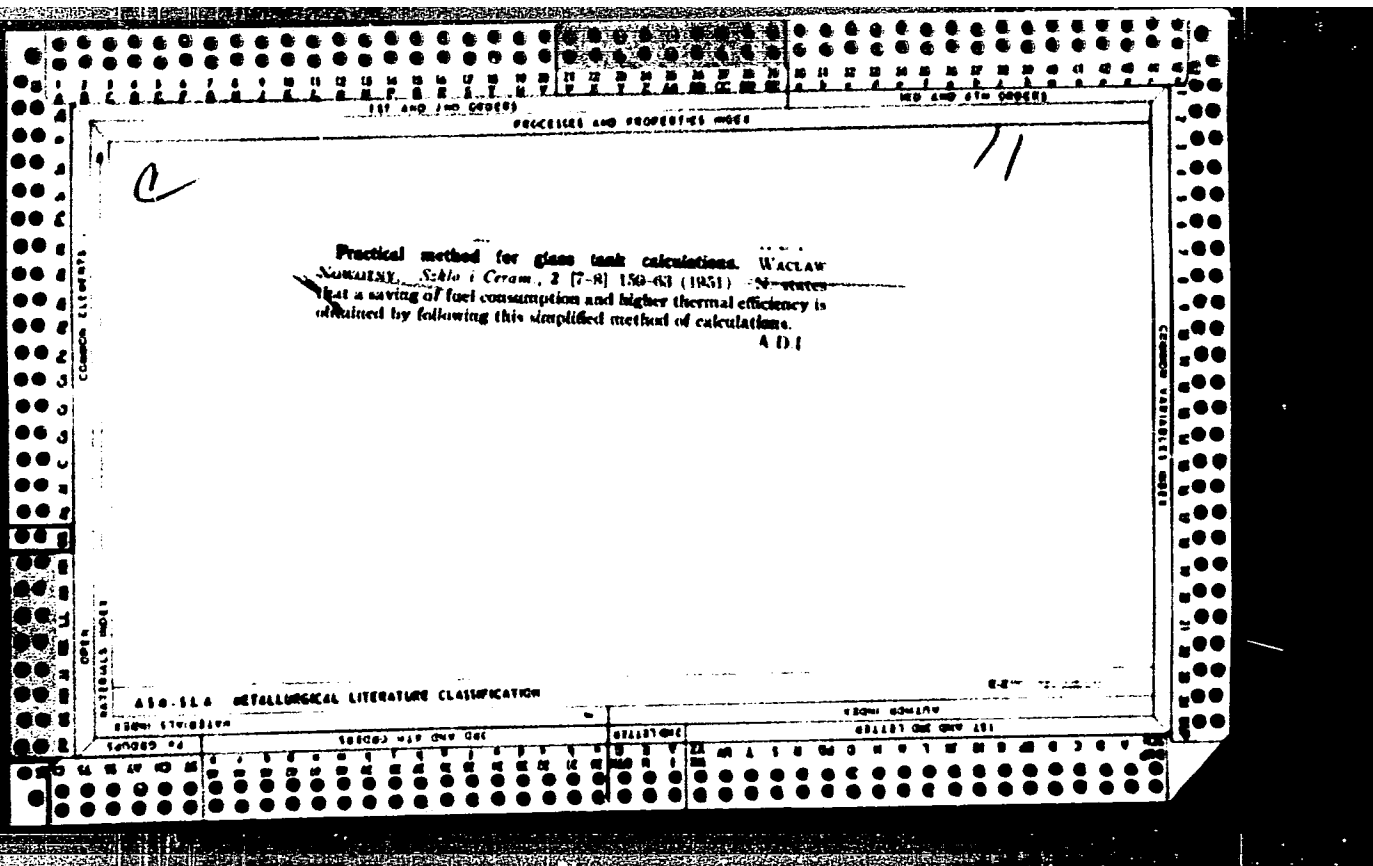
C

Manufacture of colored glass. J. NOWOTNY AND W. NOWOTNY. Przemysł Szkłarski, 1949, No. 8-9, pp. 10-12. No. 10-11, pp. 17-22; No. 12, pp. 2-8. Polish Tech Abstracts, 1951, No. 1, pp. 99, 101. -A formula and detailed specifications for the melting of colored glass, based on the extensive experience of the authors, are given.

PTA

10

1220
11153111 114111
Nowotny, W. Compositions for Hand-Shaped Household Glassware
Zbornik radova sa skolske i druzbe kmetarstvene spoznavne razmjene
1951, No. 2, 1951, pp. 30-33, 4 figs.
The compositions of glass for household glassware. Importance
of awareness of this quality, of protecting the substance from cry-
stalization and of ensuring speed in the manufacturing process
of the blanks, rate of crystallization and crystallization facility. The
article also contains a review of the diagrams of compositions.



*Kilns, Furnaces, Fuels,
& Combustion*

ACS

Minimum height of regenerating chambers of glass tank fur-
naces. WACLAW NOWOTNY, *Szkło i Ceram*, 3 [9] 200-201
(1981).--Methods of calculating the minimum height of regener-
ating chambers are given in table A D 1

AES

XI

Problems relating to the re-use of waste heat from glass furnaces. WACLAW NOWOTNY. *Szklo i Ceramika*, 2 [10] 219-23 (1951).—N. gives a heat balance for a glass tank furnace. results show that 83.3% of the heat input is lost to the surroundings. He proposes the following uses for waste heat: (1) steam production for gas works, (2) building heating, (3) water heating, (4) drying of raw materials, (5) drying and preheating of fuel, and (6) steam production for the production of electrical energy. A 11.

PTA

10

1951 665171
Nowotny W. Optimum Size of Glass-Works for Bottle Manufacture.
"Optymalna wielkość huty butelkowej" Szkło i Ceramika No. 5,
1951, pp. 108-110, 1 fig.

The author presents a program of glassworks for bottle manu-
facture based on the assumption of a standard of the
consumption of glass containers per head of popula-
tion. The author has also proposed for the erection of glass-works
in Upper and Lower Silesia, in the Pomorania-Pomeranian, Mazurian, Li-
thuanian and Całuchian districts. The article also deals with the tech-
nical equipment of the works.

PTA

10

643.353.354 : 666.113 : 666.19 : 743
M. J. W. Blending of Compositions for Household Glassware.
Uszkiechnianie zestawow na szklo gospodarze: Szklo i Ceramika, No. 6, 1951, pp. 130-134

An attempt at determining the influence of certain component
of the quality of household glassware of various types (mass-
produced household articles of general utility, high-grade table
glassware and artistic glass). The author deals in detail in the re-
sume of his article with the influence of the individual oxides on the
preparation of batches for improving household glassware.

NCWOTNY, W.

"The proper color of dark bottles", p. 40 (Szklo I Ceramika. Vol. 4, no. 2, Feb. 1953, Warszawa)

Vol. 3, No. 3

SO: Monthly List of East European Accessions/ Library of Congress, March 1954, Uncl.

NOWOTNY, W.

"Materiał, klasy; definicje i technical vocabulary", p. 85, (C.I.I.
I CERAMIKI Vol. 4, No. 3, Mar. 1953, Warszawa, Poland)

SO: Monthly list of East European expressions, (EEAE), 10, Vol. 4, No. 2,
May 1950, Encl.

NOWOTNY, W.

Pyrolustie as a coloring and decoloring agent for a mass of glass. p. 132.
(SZKLO I CERAMIKA. Vol. 7, no. 9, Sept. 1956, Warszawa, Poland)

SO: Monthly List of East European Accessions (FEAL) LC. Vol. 6, No. 12, Dec. 1957.
Uncl.

POLAND/Chemical Technology. Chemical Products and Their ApplicationsH-13
Ceramics. Glass. Binding Materials. Concrete

Abs Jour : Ref Zhur - Khimiya, 1958, No 22, 74725

Author : Nowotny W.
Inst : Not Given
Title : Pyrolusite as a Coloring and Decolorizing Agent in the
Manufacture of Glass

Orig Pub : Szklo i ceram., 1957, 8, No 9, 232-234

Abstract : Mechanism of coloring glass of varying composition with the use of MnO_2 is discussed. Manganese is a rather weak coloring agent since its degree of oxidation depends on the nature of glass and, therefore, not all of its oxides produce tinting effect. The dissociation reaction of manganese oxides at the temperatures of glass melting are presented. For coloring purposes 0.5-6 kg of pyrolusite per 100 kg of glass mass are usually employed. For the decolorizing of glass approx. 0.25 kg of MnO_2 per 100 kg of glass mass are used.

Card : 1/1

NOWOTNY, WACLAW

Szafka barwne. (Wyd. 1)

Warszawa, Poland. Arkady. 1958. 304 p.

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

Uncl.

POLAND / Chemical Technology. Chemical Products and H-13
Their Application--Ceramics. Glass. Binding
Materials. Concrete

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9042

Author : Nowotny, W.

Inst : Not given

Title : Calculation of the Expansion Coefficient of
Glasses and Glazing by the Apen Method

Orig Pub: Szklo i ceram., 1958, 9, No 1, 9-12

Abstract: The problem of calculating the expansion coefficient
of different materials from their chemical compo-
sition has important significance in glass produc-
tion, especially for multi-layer (plate glass)
and thermoresistant types, as well as in glazing

Card 1/3

POLAND / Chemical Technology. Chemical Products and H-13
and Their Application--Ceramics. Glass.
Binding Materials. Concrete

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9042

ceramic products and enameling metals. The simple method of additivity, suggested by Winkelmann and Schott, has a number of essential defects: the expansion coefficient cannot be correctly calculated from the chemical composition, expressed in percentage by weight; the effect of some oxides is not directly proportional to their content in the glass; Winkelmann and Schott determined the coefficient of expansion of individual oxides over an interval of zero to 100 percent, which procedure is quite limited. The Soviet scientist, Apen, suggested a different method of calculating the expansion coefficient, which operates on the basis

Card 2/3

141

POLAND/Chemical Technology. Chemical Products and Their Application. H-13
Ceramics. Glass. Binding Materials. Concrete

Obs Jour : Ref Zhur - Khim., No 24, 1958, No 62427

Author : Nowotny W.

Inst : -

Title : Special Methods of Obtaining Colored Built-Up Glass

Orig Pub : Szklo i ceram., 1958,9, No 3, 57-59

Abstract : Several methods of manufacturing of built-up glass are described. The "lubriko" glass is distinguished by the gradual decrease in color intensity that determines its quality. By means of melting on to an object pieces of cut glass wool, the so called, 'setchatoye' glass is obtained. The technology of manufacture and properties of "atlasnyye", "moroznyye" and "karamornyye" glasses are also given. --
L. Sedov.

Card : 1/1

~~NOVOZHENNYI, Vatslav~~, [Nowotny, Waclaw] magistr-inzhener (Varshava, Pol'sha)

Multicolored mosaic incrustation of murrhine and millefiori glasses.
Sbor. nauch. trud. Bel. politekh. inst. no.86:80-83 '60.

(MIRA 13:10)

(Glass, Millefiori)

P/015/61/000/009/001/002
D001/D101

AUTHOR: Nowotny, W.

TITLE: Glass-forming systems and internal glass structure

PERIODICAL: Szkło i ceramika, no. 9, 1961, 263-266

TEXT: This is an abridged translation of a paper by a member of the Academy of Sciences, BSSR, M. A. Bezborodov entitled in Russian "Stekloobraznyye sistemy i problema stroyeniya stekla" (Glass forming systems and problems of glass structure), presented at the 3rd All-Union Scientific Conference on internal structure of glass held in Leningrad November 16-20, 1959. The paper was included in a collection of papers presented at this conference entitled "Stekloobraznoye sostoyaniye", published by the Publishing House, Academy of Sciences, USSR, Moscow, Leningrad 1960. The author reviews broadly the work and findings of various scientists covering the period since 1921. Names of the following Soviet-bloc scientists are mentioned: A. A. Lebedev, N. S. Andreyev, E. A. Poray-Koshits, W. A. Florinskaya, R. S. Pechonkina and A. I. Stozharov. There are 10 Soviet-bloc and 6 non-Soviet-bloc references. The four most recent references to English language publications

Card 1/2

P/015/61/000/009/001/002
D001/D101

Glass-forming systems and internal ...

read as follows: W. H. Zachariasen, J. Am. Chem. Soc. 54, 3841, 1932; E. J. Gooding,
W. E. S. Turner, J. Soc. Glass Technol., 18, 32, (T). 1934; Andreyev Poray-Koshits,
N. S. - J. Soc. Glass Technol., 43, 213, 235, 1959; C. Z. Mac Kinnis, I. W. Sutton,
J. Am. Cer. Soc., 43, 240, 1959. ✓

Card 2/2

NOWOTNY, Waslaw

Copper ions diffusion into glass and its chemical compositions. Szklo
12 no.8:234-237 Ag '61.

NOWOTNY. Waclaw

A forgotten method of manufacturing artistic ornamental glass-
ware. Szklo 13 no.3:80-82 Mr '62.

RANGELOVA, S.; VELEV, V.; PEYEVA, Z. [Peeva, Z.]; NOYEVA, K. [Noeva, K.]

Specific properties of gamma globulins, prepared by the Scientific
Research Institute for Epidemiology and Microbiology. Pt. 3.
Trudy epidemiol mikrobiol. 8:117-120 '61 [publ.'62].



SOBEVA, V.; NOYEVA, K. [Noeva, K.]; GANCHEVA, Ts.; SLAVCHEV, R.

Experiments in preparing the specific gamma globulin against
smallpox. Trudy epidemiol mikrobiol 8:153-155 '61 [publ.'62].

*

110

CA

Root nodules of leguminous plants. I. Pigmentation of nodules. Anna Nowotny-Miszczynska (P. I. N. G. W. Pulawy, Poland) *Polish Akad. Sci. Rozprawy Botaniczo-Lesne* No. 50, 35 pp. (1950) (English summary). Changes in pigmentation of root nodules (I) of peas, lupine, and serratelella are observed from their first appearance until their disappearance. Time of appearance of I, their size and pigmentation, as well as the N assimilation of the plant and the soil. The dry wt. of the plant, of I, and the amt. of N compounds, approx. doubles in the period from the appearance of I to the end of the blooming time. During the latter part of this period the pigment of I becomes exclusively red; and as the growth rate of the plant decreases the red is slowly replaced by green. There is a direct relationship between the concn. of red pigment in I and the N assimilation by the plant. Shading of plants, removing leaves or pruning changes pigmentation in I and checks further nodulation: for peas $L_{red}/L_{green} = 1:3$. Watering of shaded and pruned plants with 0.5% maltose partially prevents above changes in pigments of I (in lupine), but neither maltose nor glucose watering reverses the change once it has occurred. I. Z. Roberts

1951

~~NOWOTNY, MIŁCZYŃSKA, ANNA~~

"Problemy symbiotycznego wiązania wolnego azotu. Warszawa, Państwowe Wydawn. Rolnicze i Lesne, 1952. 154 p. (Problems of symbiotic fixation of atmospheric nitrogen)."

DA

Not in DLC

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

NOWOTNY-MIECZYŃSKA, A.

"Influence of several factors on the pigmentation of nodules of leguminous plants",
p. 4, (ACTA MICROBIOLOGICA POLONICA, Vol. 1, No. 1, 1952, Warszawa, Poland)

SO: Monthly List of East European Accessions, L.C., Vol. 3, No. 4, April, 1954

NOWOTNY-MIECZYNSKA, A.

Nowotny-Mieczynska, A.; Ruszkowska, M. "Influence of Mineral Nitrogen on the Growth of Inoculated Leguminous Plants" p. 205 (Acta Microbiologica Polonica, Vol. 1, No. 3, 1952, Warszawa)

SO: Monthly List of ~~Recent~~ Accessions, East European Vol. 3, No. 3, Library of Congress, March ¹⁹⁵⁴ ~~1953~~, Uncl.

NOWOTNY-MIECZYNSKA, Anna

Mechanism of binding of free nitrogen. Postepy biochem. Vol.2

77-82 1954.

(NITROGEN, metabolism,
binding)

NOWOTNY - MIECZYŃSKA, A.

P 01 . . .

The effect of inorganic nitrogen on the growth of leguminous plants. H. A. Nowotny-Mieczynska and M. Ruskowski (U.S.S.R., *Plant and Soil* 1954, 3, 331-93(1954). ~~Plant and Soil~~ *Microbiol. Polon.* with varied amts. of KNO_3 and NH_4NO_3 added. Growth was not inhibited by excess KNO_3 (5 mg./100 g. sand), but N fixation was inhibited completely. NH_4NO_3 was a much better source of N than KNO_3 . The lucerne obtained about 60% of its N from the soil; the rest came through its root nodules.
I. Z. Roberts

Nowotny-Mieczyska, A.

POL . . .

The influence of manganese on the development of tomatoes during various stages of development: A. Nowotny-Mieczyska and M. Ruzsikowska. *Roczniki Nauk Rolniczych*, Ser. A, 69, 670-1(1964).—The object of the expts. was to find a stage of growth where the addn. of Mn would produce the best effect. The expts. were conducted in pots contg. 1 kg. of rinked sand. The sand contained a complete mineral nutrient along with Fe which was added in const. amts. to all pots in the form of Fe citrate. The expts. were begun at pH 7.6. The following stages of development were used to study the treatment effects: stage 1, soil treated before seeding; stage 2, stage before active flowering of plants; stage 3, stage during fruit formation. The Mn was applied as $MnSO_4$ at a rate of 7.5 mg. Mn/kg. of sand. The control series did not receive any Mn. In this series, the plant development was stopped and the plants did not blossom or set fruit. Approx. 20 days after seeding these plants demonstrated typical Mn-deficiency symptoms. Their leaves were small and spoon-shaped, and their green color was chiefly along the veins forming a kind of delicate network. The wt. of the roots of the control (dried) was ten times less than of plants treated at stages 1 and 2. Plants treated at stage 3 did not set fruits, however the symptoms of Mn deficiency disappeared within a few days after the addn. of Mn. These plants picked up a significant quantity of Mn, but they were apparently unable to utilize it. The addn. of Mn at stages 1 or 2 produced the strongest effect. The growth of these series produced approx. equal quantities of fruit, rich in vitamin C (140-190 mg. ascorbic acid from the fruit of one plant). The plants treated at stages 1 and 2 also took up the greatest amount of Mn (197-318 γ /g. dried roots). Ernest G. Jaworski

~~MIECZYŃSKA ANNA NOWOTNY~~
NOWOTNY-MIECZYŃSKA, Anna

Phosphorus nutrition of leguminous plants. I. Anna Nowotny-Mieczyska and J. Ziarkiewicz. Roczniki Nauk Rolniczych 71, Ser. A, 190-219 (1955) (English summary). Expts. were conducted with lucerne, soybeans, and peas. P was given as KH_2PO_4 and K_2HPO_4 (1:1). Max. yields of lucerne and soybeans were obtained with 250 mg. P_2O_5 per pot (10 kg. sand). The max. yield of peas was obtained at 750 mg. P_2O_5 per pot. Lucerne and soybeans were able to take up P even 3 weeks after emergence. Peas were only able to take up P in the 1st days of growth. Soybeans took up 60% P_2O_5 , peas 25% P_2O_5 , and lucerne 10% P_2O_5 from pots supplied with 500 mg. P_2O_5 . The org. P concn. in lucerne and soybeans was independent of the different amts. of available P_2O_5 in the soil. The opposite was true for peas. Ernest G. Jaworski

NOWOTNY - MIECZYŃSKA, H.

Photosynthesis. A. Nowotny-Mieczyńska. *Postępy
Wiedzy Rolniczej* 1, No. 6, 12-23 (1953). Review covering
chem. synthesis and photosynthesis, the role of chloro-
plasts, enzymes, pigments, chlorophyll, energy of light, Fe,
Mn in photosynthesis, and the chem. structure of chloro-
phyll. L. J. Piotrowski

POLAND/Soil Science. Soil Biology

J-2

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 43817

Author : Nowotny-Mieczynska A., Golebiowska J.

Inst : Pulavakh Institute

Title : The Influence of Microbial Population on the Phosphorus Uptake by Some Crop Plants.

Orig Pub : Acta microbiol. polon., 1956, 5, No 1-2, 129-132 (English; res. Polish)

Abstract : At the microbiological division of the Institute in Pulavakh an investigation was made of the content of various groups of microorganisms in loess and sand soils. In sandy soil there was a predominance of microorganisms which dissolved $\text{Ca}_3(\text{PO}_4)_2$ (1), and as an example in identical quantities microbes were represented: mineralizing organic phosphorus compounds (2), more readily utilizing organic phosphates (3), taking up mineral phosphates better (4). In loess soil there was a stronger representation of 1 and 2, and 3rd group of microbes was

Card : 1/2

NOWOTNY-MIECZYŃSKA, A.

Certain problems of the mechanism of binding of free nitrogen.
Acta mikrob.polon. 8 no.3-4:271-281 '59.

1. Z Zakładu Fizjologii Roslin Instytutu Uprawy, Nawożenia i
Gleboznawstwa w Pulawach.

(NITROGEN metab)

(BACTERIA metab)

HOWOTNY-MIECZYNSKA, A.; ZINKIEWICZ, J.

Effect of plant nutrition on the activity of *Rhizobium trifolii*
in symbiosis with clovers. Acta mikrob.polon. 8 no.3-4:309-313
'59.

1. Z Zakładu Fizjologii Roslin Instytutu Uprawy, Nawożenia i
Gleboznawstwa w Pulawach.
(RHIZOBIUM)
(PLANTS)

NOWOTNY-MEÇZYNSKA, Anna

On the aging phenomenon in higher plants. Postepy nauk roln 8 no.3:
9-17 My-Je '61.

1. Instytut Uprawy, Nawożenia i Gleboznawstwa, Pulawy.

NOZOTNY-MIECZYNSKA, Anna

Problems of the mechanism of binding free nitrogen by symbiotic and asymbiotic organisms. Postepy mikrobiol 2 no.1:3-24 '63.

i. laboratory of Plant Feeding Physiology, Institute of Cultivation, Manuring and Soil Science, Pulawy.

NOWOTNY-ZBROWSKA, Danuta; NIECZOGKINWICZ, Bronisław

Preparation of the area for skin grafting in children. Pol.
przeł. chir. 37 no. 2:182-186 3 1966.

1. Ze Specjalistycznego Oddziału Chirurgii Dziecięcej Szpitala
Miejskiego w Gliwicach (Kierownik: doc. dr. Z. Tabenski).

NOWOTNY-ZBOROWSKA, Danuta

Treatment of burns and sequelae in children. Pol. przegl. chir.
37 no.10:957-959 0 '65.

1. Z Oddziału Chirurgii Dziecięcej Szpitala Miejskiego w Gliwicach
(Ordynator: doc. dr. Z. Tabenski).

VLADEA, I.; NOWY, O.

Study of the Behr type oil cooler. Studii tehn Timisoara 10
nq.2:345-354 J1-D '63.

L 45523-66 EWT(1) JM

ACC NR: AR6013694

SOURCE CODE: UR/0058/65/000/010/H033/H034

AUTHOR: Noyanov, V. I.; Trubetskov, D. I.

TITLE: Influence of cold losses in the transmission line on the gain of an M-type traveling wave tube 70
B

SOURCE: Ref. zh. Fizika, Abs. 10Zh228

REF SOURCE: Sb. Vopr. elektron. sverhvysook. chastot. Vyp. 1. Saratov, Saratovsk un-t, 1964, 107-117

TOPIC TAGS: traveling wave tube, transmission line, dispersion equation, adiabatic approximation, space charge

ABSTRACT: The authors determine the gain K of an M-type TWT by solving the dispersion equation. The solution is obtained by assuming a linear adiabatic theory without allowance for the effect of space charge. An asymptotic formula is given for K, in which the decreasing partial wave is neglected. The results of calculations of K by this formula are given as a function of the nonsynchronism parameters and of the "cold" losses. The formula offers a sufficiently good approximation in the region of admissible values of the nonsynchronism parameter of the M-type TWT. In the analysis of the influence of the "cold" losses it is shown that the latter can have a value above which the decreasing wave prevails over the increasing one and the interaction of the two partial waves does not ensure amplification even under near-synchronism conditions. E. Guttsayt. [Translation of abstract]

SUB CODE: 20 09

Card 1/1

L 45324-55 EWT(1) JM
ACC NR: AR6015966 SOURCE CODE: UR/0275/65/000/011/A023/A023

AUTHOR: Noyanov, V. I.; Trubetskov, D. I.

TITLE: Effect of cold losses in the transmission line on the amplification factor of a type M TWT

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 11A144

REF SOURCE: Sb. Vopr. elektron. sverkhvysok. chastot. Vyp. I. Saratov, Saratovsk. un-t, 1964, 107-117

TOPIC TAGS: transmission line, dispersion equation, traveling wave tube, space charge

ABSTRACT: The amplification factor of a type M TWT is determined by solving a dispersion equation on the assumption of linear adiabatic theory without accounting for the effect of space charge. An asymptotic formula is given for the amplification factor assuming a damped partial wave. The results of calculations by this formula are given as a function of the parameters of asynchronism and "cold" losses. The asymptotic formula gives a rather close approximation in the region of permissible values for the parameter of asynchronism for a type M TWT. Analysis of the effect of "cold" losses shows that they may take on a value beyond which the damped wave predominates over the increasing wave and interaction between the two partial waves does not give amplification even under operating conditions close to synchronous. Bibliography of 4 titles. E. G. [Translation of abstract]

SUB CODE: 09

Card 1/1

JS

UDC: 621.385.632

NOYEV, K.: KONSTANTINOV, A.

~~SECRET~~ Retothelosis leucaemica lymphatica. Izv. med. inst., Sofia 1 no.
6-7:193-206 1952. (GLML 24:2)

1. Doctors. 2. Skin-Venereological Clinic (Director -- Prof. L. Popov) of Vulko Chervenkov and the Military Polyclinic (Director -- Dr. Radevski), Sofia.

1. NOYEV, V. N.; MESCHANINOV, I. A., Eng.
2. USSR (600)
4. Steam Boilers
7. Methods of controlling deterioration of boilers due to brittleness, Rab. energ., 10, No. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

NOYEV, V. N.

NOYEV, V. N.

"Avarii Kotlov Na Elektrostantsiyakh iz-za Narusheniy Tsirkulyatsii,"
Hydrodynamics and Heat Transfer During Boiling in High Pressure Boilers.
U.S.S.R., Academy of Sciences (Moscow, 1971).

A study of the paper describing the work on the formation of steam and water, the formation of steam and heat transfer in boiler tubes.

NOYEV, V. N. Engr. and PANASENKO, M. D. Cand. Tech. Sci.

"Effective Boiler Equipment," paper presented at the 5th World Power Conference, Vienna, 1956

In Branch # 5

NOYEV, V.N.

Scavenging a water economizer. Energetik 5 no.8:40 Ag '57.

(MLRA 10:10)

(Boilers)

SOV/96-58-5-22/27

AUTHOR: Noyev, V.M., Engineer and Prokhorov, F.G., Roddatis, E.F.,
Candidates of Technical Sciences

TITLE: New Design Standards for the Quality of Steam, Feed-water
and Blow-down Water (Novyye raschetnyye normy kachestva
para, pitatel'noy i produvochnoy vody)

PERIODICAL: Teploenergetika, 1958, nr 5, pp 82 - 85 (USSR)

ABSTRACT: Recent experience with high-pressure boilers makes
it necessary to revise existing design standards for the
quality of feed-water, boiler-water and steam. The standards
also need to be made more precise for boilers operating at
lower pressures.

The design standards given in this article relate to boiler
equipment and power stations and have been accepted by the
technical council of the Ministry of Power Stations after
thorough consideration. They also take account of suggestions
made by the design organisations, scientific research
institutes, ORGRES and power undertakings. The standards
will guide design organisations in making up losses of water in
condensing and heat-supply power stations with drum-type
boilers at pressures of 155 and 110 atm. The risk of fouling
the flow parts of turbines with salts in heat and electric
Card 1/4

SOV/96-58-5-22/27
New Design Standards for the Quality of Steam, Feed-water and
Blow-down Water

power stations is not great. Some of the salts are removed with the process of heating steam and stations of this type may be allowed higher steam-contamination figures than condensing stations. Because of recent difficulties with the formation of iron and copper deposits in boilers, only very low concentrations of iron and copper are allowed in feed-water. The standards are also stricter in respect of the free carbon-dioxide content of the steam. In order to restrict brittle fracture, limits are placed on the free alkali content of boiler water. Reference is made to nitrates and nitrites. The previous limits for the oxygen content of feed-water were too high and have been reduced. The standards given in the tables are to enable design organisations to select the most suitable schemes for preparation of feed-water and condensate and to select boilers' accessories for ensuring the necessary purity of the steam when operated in combination with the selected method of water treatment. The standards should also lead to more reliable water conditions in power-station boilers.

The standards are then given in the form of tables; it is
Card2/4

SOV/96-58-5-22/27

New Design Standards for the Quality of Steam, feed-water and
Blow-down Water

explicitly stated that they do not apply to atomic power-stations. The quality of steam delivered to a turbine must be in accordance with the requirements of Table 1. Injection water for super-heat control is defined. The quality of feed-water for power stations with drum-type boilers should satisfy the requirements of Table 2. The quality of feed-water for direct-flow boilers of any pressure without separators should conform to Table 3. The salt and silica contents of blow-down water for drum-type boilers, depending on the pressure and the accessories, are stipulated in Table 4. Limitations are placed on the free hydrated alkalinity. The amount of continuous blow-down from drum-type boilers should not exceed the standard figures. Blow-down of more than 1% from heat and electric power stations is permitted only after

Card 3/4

SOV/96-58-5-22/27
New Design Standards for the Quality of Steam, Feed-water and
Blow-down Water

all measures have been taken to reduce it by improving the
boiler accessories.

There are 4 tables

Card 4/4 1. Feed water--Standards 2. Steam--Standards 3. Boilers--Performance

NOYEV, Vladimir Nikolayevich; MELEYEV, A.S., red.; BORUNOV, N.I.,
tekh. red.

[Introduction and use of boiler-turbine blocks in electric-
power plants in France] Opyt vnedreniia i ekspluatasii blokov
kotel-turbina na elektrostantsiakh Frantsii. Moskva, Gos-
energoizdat, 1963. 135 p. (MIRA 16:6)
(France--Electric power plants)

BELOV, N.V., inzh.; NOYEV, V.N., inzh.; OERAZTSOVA, N.V., inzh., red.;
YALYSHEV, Z.S., inzh., red.; KOPEYKINA, L.V., red.

[Methods of industrial thermochemical testing of barrel
boilers] Metodika ekspluatatsionnykh teplokhimicheskikh
ispytaniy barabannykh kotlov. Moskva, Izd-vo "Energiya,"
1964. 126 p. (MIRA 17:6)

1. ORGRES, trust, Moscow.

TOSHKOV, As.; SHEYKOVA, G.; NOYEVA, K.

Combined use of streptomycin and human gamma-globulin in experimental whooping cough infection in mice. Antibiotiki 5 no.2:67-69 Mr-Ap '60. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut epidemiologii i mikrobiologii, Sofiya, Bolgariya.

(WHOOPING COUGH) (STREPTOMYCIN)
(GAMMA GLOBULIN)

ACC NR: AR6035062 SOURCE CODE: UR/0058/66/000/008/H060/H060

AUTHOR: Noykina, T. K.

TITLE: Formation of a hollow cylindrical electron beam by an electrostatic field

SOURCE: Ref. zh. Fizika, Abs. 8Zh436

REF SOURCE: Nauchn. soobshch. Rostovsk. un-t. Ser. toch. i yestestv. n. Rostov-na-Donu, 1964(1965), 83-84

TOPIC TAGS: electron beam, electrostatic field, hollow cylindrical electron beam/Minsk-12 computer

ABSTRACT: The results of a theoretical analysis of the focusing system "bifilar helix-coaxial rod" are briefly reviewed. By satisfying the condition of equilibrium of forces acting on the hollow beam moving between the helix and the rod, it is possible to obtain a well-focused electron beam with a perveance $>6 \cdot 10^{-7}$ amp/v^{3/2} at beam pulsations of 2-5% from the equilibrium radius. The solution of the respective motion equation (in parametric form) was realized on a Minsk-12 computer. The results of the calculations can be used for designing specific systems. [Translation of abstract] [DW]

SUB CODE: 20/

Card 1/1

COUNTRY : U.S.S.R. II
 CATEGORY : Chemistry. Chemical Products and
 Their Uses. Part 2. Synthetic and Natural*
 ABS. JOUR. : Khim., No. 1 1960, No. 1960
 AUTHOR :
 TITLE :
 ORIG. LIT. :
 ABSTRACT : A method is described for the synthesis of
 substituted alcohols from substituted aldehydes. The
 reaction is carried out in the presence of a catalyst
 consisting of a mixture of nickel and cobalt salts.
 The reaction conditions are: temperature 100-120°C,
 pressure 1-2 atm, reaction time 2-3 hours.
 The yield of the product is 80-90%.
 The authors are: S. A. Kabanov, G. A. Kabanova,
 V. I. Kabanov.

COUNTRY :
COUNTRY :

ISS. REF. : 620Am., No. 1 1960, No. 211

NUMBER :
PAGE :
TITLE :

ISS. REF. :

ABSTRACT : The critical character, distribution of the
curves in dependence of water vapors upon the
high pressure and the use of the critical
point. It was established that the critical
of anhydrous and of anhydrous chloride
article, the critical at 300-350°, residual
pressure of 10-100 atm of mercury, comparative
with the spectra of the pressure of other
groups and with the pressure indicator of 1-10.

REF: 211

N-50

BULGARIA/Chemical Technology. Chemical Products and Their Applications. Industrial Organic Synthesis. H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20363

Author : Noykov, D.

Inst :

Title : Possibilities for Creating a Synthetic Organic Industry in Bulgaria.

Orig Pub : Tekhnika (Bulg.), 1957, 6, No 2, 1-4

Abstract : The basic directions of modern industrial organic syntheses and the possibilities for creating them in Bulgaria are examined. The special significance of reprocessing natural gas into acetylene and the development of a petrochemical industry is emphasized. -- Z. Rachinskiy

Card : 1/1

1+ 48

AID P - 4965

Subject : USSR/Engineering
Card 1/1 Pub. 110-a - 14/21
Author : Noyman, K.
Title : Gas-turbine of 40 megawatt capacity (News From Abroad)
Periodical : Teploenergetika, 8, 51, Ag 1956
Abstract : Description of the above gas turbine which is proposed to be built and put in operation in 1959 in Sweden. Taken from the German periodical "Maschinenbau und Wärmetechnik," No. 3, 1950.
Institution : None
Submitted : No date