

FLERBAUM, J.; SWIECH, J.

Remarks on the relativistic two-body problem in the classical nonlinear
field theory. In English. p.457
POLSKA FIZYKA POL. PA (Polish Academy of Sci. Dział Fizyki i Astronomii)
Vol. 14, no. 6, 1955

So. East Univ. Res. Acc. No. 14. 16. 1955. September 1955

PIDWALSKI, J.; KALINOWSKI, J.

Minimum stochastic risk of distortion in lower low-pass channels. *Prace
Instytutu Inżynierii Elektrycznej (Polish Academy of Sciences Institute of
Problems in Technical)*
Vol. 4, no. 3, 1955

So. East Euro. Univ. Accessions List Vol. 5, No. 2 October 1955

PLEBANSKI, J.; INFELD, L.

On a certain class of unitary transformations. p. 41. ACTA PHYSICA
POLONICA. Warszawa. Vol. 14, no. 1/2, 1955. In English.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

Handwritten notes: P. 10, 11, 12

1049 On a certain class of unitary transformations, the Hamiltonian and the action function of a harmonic oscillator respectively, prove to be identical with L , i.e. with the restricted Lorentz group acting in a three-dimensional Minkowski space. The possibility of reduction of quadratic forms in co-ordinates and momenta to each of the three possible canonical forms, effected by means of linear unitary transformations, is discussed. A simple method is given for finding the eigenvalues of an operator which is a general elliptic quadratic form in the co-ordinates and momenta. Finally by specializing the general theory of the preceding sections a detailed discussion of a number of particular unitary transformations and the corresponding unitary operators is given. At the same time the rules for applying these operators to state factors are deduced. The results are useful computations directly performed on operators appearing in various quantum mechanical problems. In the last section the question of composing linear transformations and the corresponding unitary operators is discussed.

momentum operators (physically identical with the Hamiltonian, the Lagrangian and the action function of a harmonic oscillator respectively). This group proves to be identical with L , i.e. with the restricted Lorentz group acting in a three-dimensional Minkowski space. The possibility of reduction of quadratic forms in co-ordinates and momenta to each of the three possible canonical forms, effected by means of linear unitary transformations, is discussed. A simple method is given for finding the eigenvalues of an operator which is a general elliptic quadratic form in the co-ordinates and momenta. Finally by specializing the general theory of the preceding sections a detailed discussion of a number of particular unitary transformations and the corresponding unitary operators is given. At the same time the rules for applying these operators to state factors are deduced. The results are useful computations directly performed on operators appearing in various quantum mechanical problems. In the last section the question of composing linear transformations and the corresponding unitary operators is discussed.

A. (11)
Small
HFM

PLEBANSKI, J.

Plebanski, J. Certain wave packets. p. 275.

Vol. 14, no. 4, 1955 Warszawa, Poland
ACTA PHYSICA POLONICA

SO: Monthly List of East European Accessions, (MEAL), 1977, Vol. 5, no. 10 Oct. 77

PLEBANSKI, J

Distr: *LEAF*

Infeld, L.; and Plebanski, J. On a covariant formulation of the equations of motion. Bull. Acad. Polon. Sci. Cl. III 4 (1956), 767-762.

The matter tensor of Einstein's equations is expressed as a sum of point singularities of the modified δ -function defined in the paper reviewed above. It is shown that the field equations constrain the singularities to move on geodesics. The reason for the definition of δ appears in this paper. It eliminates the self-action of the point particles which give rise to pole singularities. One would therefore expect that correct results "proved" with the use of δ could also be obtained by Hadamard's method of "parties fines". *A. J. Coleman (Toronto, Ont.)*

4
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Spec

PLEBANSKI, J.

"Remote Indication of Angular Displacements", (Conclusion) p. 548, (in *TELEKOMUNIKACYJNY*, Vol. 27, No. 11, Nov. 1954, Warszawa, Poland)

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

PLcB NYSX, J

530.13

ON A COVARIANT FORMULATION OF THE EQUATIONS
 OF MOSES, P. H. RAY AND J. R. RABBITT
 Bull. Acad. Polon. Sci. Cl. 3, VIII (1950), 787-83 (1950)

The equations and conditions for singularities are formulated
 in terms of the modified Dirac δ -function (see preceding abstract).
 It is shown that under certain conditions the equations of motion
 derived by the Dirac-Bransford-Hoffman method are necessarily
 the same as those derived from a variational principle. R. A. NAYLOR

4

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SMW

PLC BAN-45 J

4

530.145
 1965 EXPANSION OF SINGULAR FUNCTIONS ASSOCIATED WITH THE KLEIN-GORDON EQUATION. L. Infeld and J. Hrabowski. Acta Phys. Polon., Vol. 15, No. 4, 407-46 (1965).
 Two alternative approximation methods involving expansions in powers of ϵ or ϵ^2 are given for the Klein-Gordon equation. By using these methods, expansions of the more important singular functions such as Z_1 , Z_2 , and Z_3 are obtained. The connection is shown between this procedure and two alternative methods for formally integrating the Klein-Gordon equation on the basis of analogies with the Yukawa and the harmonic oscillator equations. The main purpose of this paper is to prepare the mathematical basis for the subsequent application of the Infeld-Infeld-Hrabowski method in the equations of motion in meson theory.

1965

PLEBANSKI, T.A.

1407

016729342:063:183.3

Angielski 2, Plebanski T. A Study of the Application of Activated Carbon „Carbopol” for Separation of Impurities in the Process of Preparation of Crystalline Penicillin.

2

„Badania nad zastosowaniem wagił aktywnych „Carbopol” do oddzielenia zanieczyszczeń w procesie otrzymywania krystalicznej penicyliny” Pismo Chemiczne, No. 8, 1958, pp. 281-288, 8 figs., 7 tabs.

Met

Conditions are given for purifying penicillin by using activated carbon „Carbopol”. Seventeen carbons were investigated and it was found that the best results in purifying penicillin were obtained with „Carbopol 11-2” (acid carbon with high adsorption properties) at pH = 6.5. The most suitable extracts for isolating pigments and other impurities were those of 4,300 -- 0,500 units/ml content.

Presentations

ON CERTAIN WAVE-PACKETS. F. PIGNARIEL
Ann. Inst. Poincaré, Vol. 14, No. 4, 475-493 (1972).
Theorems concerning the properties of Kennard packets
have been extended over all the solutions of the wave equation
of a harmonic oscillator. Generalising these theorems to the
quantum theory of fields, non-spreading wave packets with
classical properties have been obtained.

880.145

1

Category : POLAND/Theoretical Physics - Quantum Field Theory

B-6

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 219

Author : Plebanski, J., and Sawicki, J.
Inst : Univ. of Warsaw; Inst. Phys. Polish Acad. of Sciences
Title : Remarks on the Relativistic Two-Body Problem in the Classical Scalar Meson Field Theory.

Orig Pub : Acta phys. polon., 1955, 14, No 6, 455-470

Abstract : The circular motion of two particles interacting through a scalar meson field and the linear motion of a single particle in an external scalar field produced by the second particle are examined without quantization. It is shown that repulsion forces occur at small distances. It is shown that neglecting the damping leads to certain physical contradictions.

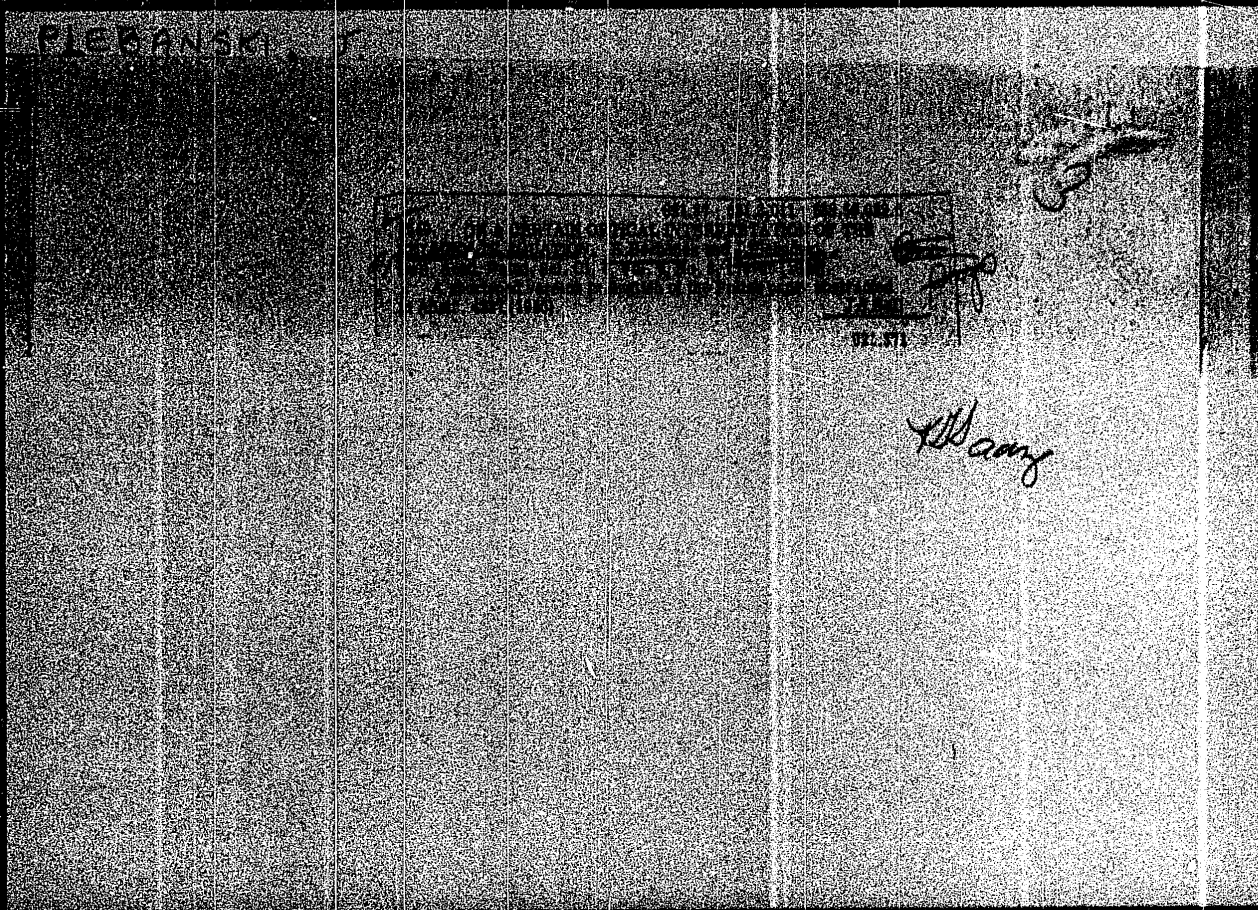
Card : 1/1

Methods of Microwave Optics.
 K. Dzhurina & I. Filizadeh (Moscow
 University). *IEEE Trans. Antennas Propag.*
 English summary, pp. 222-223. Two
 approximation methods developed on the
 basis of geometrical optics are proposed for
 the treatment of TM_0 fields. In the first
 method a solution of the wave equation is
 sought in the form $u = A \exp(i\phi)$. The
 expression $(1 + (1/k^2) \Delta^2 A)/A$ stands for
 an effective coefficient of refraction and can
 be determined to a high accuracy. This

interpretation is analogous to the quantum
 mechanical interpretation of Bohm (*Phys.*
Rev., 15th Jan. 1952, Vol. 85, No. 2, pp.
 166-193). The boundary value problem
 for the wave equation is transformed into a
 Cauchy problem for the set of equations
 for the successive terms of the expansion of
 A and ϕ in k^{-1} . The second method takes
 the Wentzel-Kramers-Brillouin approxima-
 tion as a starting point. Both methods are
 illustrated by examples.

3

W. B. ...



PLEBANSKI, J

ON A FURTHER MODIFICATION OF DIRAC'S
EQUATIONS / P. Dirac and J. Plebanski
Ann. Inst. Henri Poincaré, No. 1, 51-4 (1967)
The authors regard their previous work (Ann. Inst. Henri Poincaré, No. 1, 51-4 (1967)) as obsolete

3

SMCJ
MT

PLEBANSKI, J.

Infield, L. and Plebanski, J. A simple derivation of the equations of motion in classical electrodynamics. Bull. Acad. Polon. Sci. 11, 4 (1963), 347-351. 21

The field quantities are expressed in powers of ϵ^{-1} and by making effective use of the spherical symmetry of the

three-dimensional delta function, the equations of motion of a classical point electron including the radiation term, are obtained. A. J. Coleman (Toronto, Ont.).

Simon
MCT

INFELD, L.; ~~PLEBANSKI, J.~~

"On the 'dipole procedure' in general relativity theory. In English."

p. 763 (Bulletin) Vol. 4, no. 11, 1956
Varsovie, Poland

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

PLEBANSKI, W

POLAND/Theoretical Physics - General

B-1

Abs Jour : Ref Zhur - Fizika, No 5, 1958, No 9892

Author : Infeld L., Plebanski, W

Inst : Institute of Physics, Polish Academy of Sciences; The University, Warsaw, Poland.

Title : On a Further Modification of Dirac's δ -Functions

Orig Pub : Bull. Acad. polon. sci., 1957, Cl, 3, 5, No 1, 51-54

Abstract : Continuing their earlier work (Ref Zhur Fizika 1957, No 11, 27002), the authors introduce a three-dimensional $\delta(x)$ function of a new type, which satisfies the condition

$$\int_{\Omega(0)} d(x) \delta(x) [x]^{-p} = \omega_p \quad (p = 1, 2, \dots, k),$$

where $\Omega(0)$ is an arbitrary vicinity of the point $x = 0$, $\omega_0 = 1$, and ω_p are pre-assigned numbers. An example of a $\delta(x)$ -function of this type is given.

Card : 1/1

The General Fokker Action Principle and Its
Application in the General Theory of Relativity

POL/45-18-4-4/8

approximation, and the resultant equations are described. The individual terms of the Lagrangian appearing in these calculations are interpreted on the assumption that a perfect fluid be separated into groups of drops, where rotations and deformations are neglected. The behavior of the Lagrangian for drop dimensions tending to zero is investigated, and the renormalization of the equations of motion for point singularities in the general theory of relativity is discussed. The rather ample calculations are completed by 2 appendices. The authors express their gratitude to Professor L. Infeld for his interest in this work. There are 15 references, 2 of which are Soviet.

ASSOCIATION: Institute of Physics, Polish Academy of Sciences, Warsaw

SUBMITTED: January 21, 1959

Card 3/3

The General Fokker Action Principle and Its
Application in the General Theory of Relativity

POL/45-18-4-4/8

the Fokker Lagrangian (i.e. the Lagrangian in which only the dynamic variables appear) of the dynamic system is set up whose Euler-Lagrange equations will be the desired equations of motion. Part 1 defines the action principle of the Fokker type. Such a principle is a variational principle $\delta W_F = 0$ where $W_F = W_F \left[\begin{matrix} A \\ \xi^a \end{matrix} \right]$, from which the equations of motion of the third kind (1.8) result in a direct manner (W_F = Fokker action $\left[\begin{matrix} A \\ \xi^a \end{matrix} \right]$ world line of a particle). Studies are made in order to find $W_F \left[\begin{matrix} A \\ \xi^a \end{matrix} \right]$. Part 2 applies the method to a dynamic system in general relativity, especially to a relativistic fluid (other dynamic systems were investigated by S. Bażański and R. Michalska). The use of the EIH approximation method (expansion of field quantities and determination of the dynamic quantities from the equations of motion) simplifies calculations and is described in the present paper. Part 3 deals with the action principle and the equations of motion for a perfect relativistic fluid. The construction of the Fokker action for the fluid is made in the post-Newtonian

Card 2/3

24(5)

AUTHORS:

Plebański, Jerzy,
Bažanski, Stanisław

POL/45-18-4-4/8

TITLE:

The General Fokker Action Principle and Its Application in
the General Theory of Relativity

PERIODICAL:

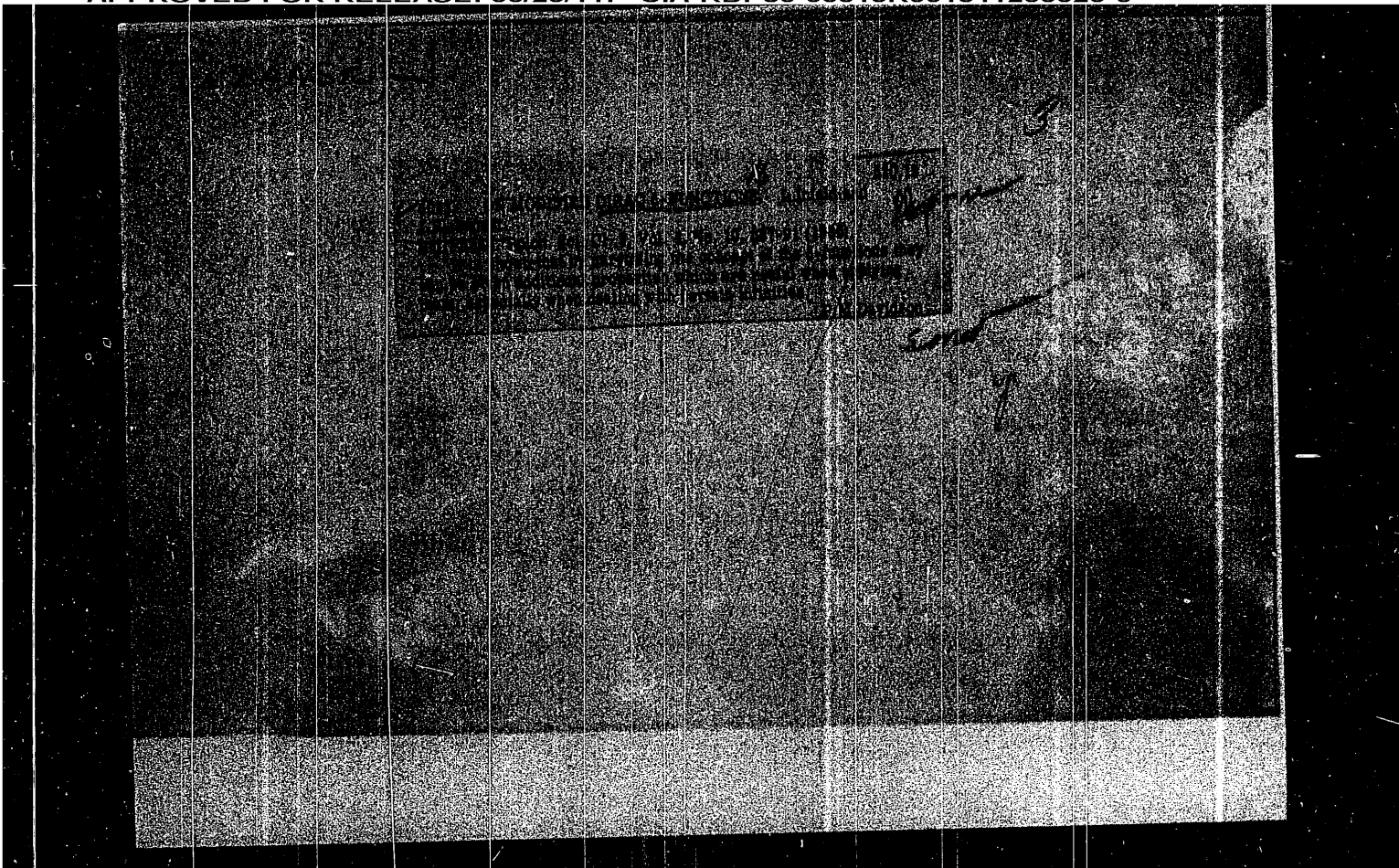
Acta Physica Polonica, 1959, Vol 18, Nr 4, pp 307-345 (Poland)

ABSTRACT:

The general theory of relativity is so far the only theory in which the field equations embrace the equations of motion. Studies were carried out by Einstein, Infeld and Hoffman (1938), Fock (1939), Einstein and Infeld (1940, 1949), Papapetrou (1951) and Infeld (1954, 1957). A variational principle leading to the post-Newtonian equation of motion for bodies was given and discussed in papers by Fichtenholz (1950) and Infeld (1957). The treatment of the equations of bodies on the level of a variational principle (a Fokker action principle in which only the dynamic variables appear) yielded the equations of motion in the general relativity theory. The calculations proved to be more economical than those made by the methods used till now. However, the method discussed here cannot be used to find a relation between the field equations and the equations of motion. By this method,

Card 1/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001341200020-6



PLEBANSKI, J.

On algebraic properties of skew tensors. Bul Ac Pol Mat 9 no.8:587-591
'61.

1. Institute of Physics, Polish Academy of Sciences and Institute of
Theoretical Physics, University, Warsaw. Presented by L. Infeld.

PLEBANSKI, Jerzy; RYTEN, Joanna

Projections as observables. Acta physica pol 20 no.9:765-773 '61.

1. University of Warsaw and Institute of Physics of the Polish Academy of Sciences.

PLEBANSKI, J.

On some applications of algebraical properties of skew tensors. Bul
Ac Pol Mat 9 no.8:593-597 '61.

1. Institute of Physics, Polish Academy of Sciences and Institute of
Theoretical Physics, University, Warsaw. Presented by L. Infeld.

SA PLEBANSKI, J.
Sent. 8

Instruments

621.317.727
2119. A sinusoidal potentiometer and its technical
use. J. PLEBANSKI. *Przeł. Telekomun.*, No. 10,
301-7 (Oct., 1951) (In Polish).

The sinusoidal potentiometer supplied with a d.c.
or a.c. voltage at the two input points gives at the two
output points a voltage proportional to the sine of the
angle of rotation of the wiper. Its use in teaching

demonstrations, e.g. beat, modulation, harmonic
analysis and synthesis, and commutation is described.
A. SZCZANIECKI

PLEBANSKI, J.; INFLED, L.

A simple derivation of the equations of motion in classical electrodynamics.
In English. p. 347. (Matematyka, Vol. 4, No. 6, 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEA) IC, Vol. 6, No. 2, Aug 1957. Uncl.

BEK, Eugenia; PLEBANEK, Wiesława

The treatment of newly discovered pulmonary tuberculosis in patients over 60 years of age. *Gruźlica* 32 no.11:975-980 N '64

1. Z Katedry i Kliniki Fizjatrii Studium Doskonalenia Lekarzy Akademii Medycznej w Szpitalu im. dr. A. Sokolowskiego w Łodzi (Kierownik: prof. dr. med. M. Zierski).

PLEBANEK, Wieslawa

Incomplete Kartagener triad. Gruzlica 31 no.5:429-431 '63.

1. Z Kliniki Ftizjatrycznej Studium Doskonalenia Lekarzy AM
i Szpitala Specjalistycznego im. dr A. Sokolowskiego w Lodzi
Kierownik: prof. dr med. M. Zierski.
(KARTAGENER TRIAD) (MENTAL DEFICIENCY)

PLEBANCZYK, W.

20
7
✓ Estimation of certain quality characteristics of plates for process work. Witold Romer, M. Gredka, Z. Juckiewicz, H. Pasek, and W. Plebanczyk (Inst. Tech., Wroclaw, Poland). *J. Phot. Sci.* 6, 144-52 (1968). Sensitometric criteria are proposed for measuring the "effective contrast" of photographic materials for line and halftone work. Methods of estg. the resolving power of materials in line photography and of dot quality in the halftone process are described. A dot quality coeff. is formulated. Good correlation between the contrast factor and resolution is found for material of conventional type but no correlations for materials of the "lith"-type. A linear relation is found between the dot quality coeff. and the contrast coeff. for both conventional and lith-type materials. Latitude requirements for continuous tone copying of originals are formulated. None of the materials tested satisfy these requirements. Authors

er

BLAIM, Alicja; PLEBANCZYK-LEKADONA, Krystyna

Diagnostic problems in subnormal growth in children. Palliat
Pol. 39 no.4:375-383 Ab 16a.

Treatment of subnormal growth in children. Ibid.:395-397

1. Z Y Kliniki Pediatrycznej Akademii Medycznej w Warszawie.
Kierownik: prof. dr. med. R. Barański. 2. Z Y Kliniki Pediatrycznej Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. T. Iewen'isz-Mojnarowska).

M-
RUMANIA / Cultivated Plants. Grains.

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72914.

Author : Pintea, C.; Plea, D.; Popescu, I.; Lazar, L.;
Leonte, A.; Untu, A.;

Inst : Not given.

Title : Influence of Micro-Elements on the Growth and De-
velopment of Corn.

Orig Pub: Studii si cercetari stint. Acad. RPR Fil. Iasi.
Biol. si stinnte agric., 1956, 7, No 1, 153-165.

Abstract: Treatment of seeds with boric acid in a concen-
tration of 0.2% accelerates the appearance of pan-
icles by 3-4 days, ripening of ears and increases
the grain harvest (by 7-23%). If the plants are
sprayed with boric acid the influence of the boron
is weaker. Nitric acid uranium lengthens the rip-
ening period of the ears and increases the harvest.

Card 1/2

ROMER, Witold; GREDKA, Maria; JACKIEWICZ, Zofia; PASEK, Halina;
PLEBANCZYK, Wiesława

Photographic chemistry. Chemia stosow 3 no.2:201-223 '59.

1. Katedra Fototechniki, Politechnika, Warszawa.

MEMO, U. S. A.

Техническая команда разработчиков [Technical team]
[Shipping and/or packaging] of radio [radio] [radio].

Shake - Moscow 1941.

PLCZAKOWSKI, Wladyslaw, prof. mgr inz.; SZCZYPA, Henryk, inz.

Saline brown coal as raw material for electric power production.
Energetyka Pol 17 no.10:296-300 0 '63.

L 13468-66 EWA(j)/T/EWA(b)-2 JK

ACC NR: AP6006025

SOURCE CODE: CZ/0053/65/014/004/0284/0285

AUTHOR: Plchova, S.; Papezova, Z.; Blazicek, G.; Karpfel, Z.

ORG: Institute of Biophysics CSAV, Brno (Biofysikalni ustav CSVA)

TITLE: Formation of hybrids between nucleic acids [This paper was presented during Biophysical Days, Brno, 12 Jun 64.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 284-285

TOPIC TAGS: DNA, mouse, bacteria, biochemistry, bacteriology

ABSTRACT: Attempt to hybridize P-32 tagged E. coli DNA with DNA from B. subtilis and mice spleen resulted in the creation of syngenic DNA with highest activity, but E. coli and B. subtilis hybrid DNA of somewhat lower activity was also produced; no heterologous hybrid DNA could be made in the agar gel. [JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 001

Card 1/1 DR

16
B

6.44.55

PLCH J

~~SECRET~~

✓ Experiences with cupolas. J. Pich (*Stahlschmelze*, 1934, 2, No. 5, 144-148).—The principle of continuous outflow of cast iron and slag through their respective tapholes in the cupola is explained, and an account given of the modifications in cupola design required with the process. The design is based on consideration of the behaviour of two immiscible liquids in contact in a connected vessel, allowances being made for different pressures acting on the respective free surfaces, i.e., air pressure in the cupola. The iron is collected in a fore-hearth, and the slag is granulated in a stream of water.

J. IRON STEEL INST. (L.B.C.)

M J

PICH, Josef

Congenital fistula of the ear lobe. Cesk. otolar. 7 no.2-3:177-180
May 58.

1. Klinika nemoci usnich, nosnich a krcnich lekarske fakulty MU v
Brne, prednosta prof. dr. Frant. Ninger.
(EAR, EXTERNAL, fistula
congen., of ear lobe, case report (Cz))

PLCH, J.

Experiences with Cupolas. J. Ploch. *(Höchstzeitung, 1904, 2, (5), 144-146)*. [In Czech]. The principle of continuous outflow of cast iron and slag through their respective tapholes in the cupola is explained, and an account is given of the modifications in cupola design required with this process. The design is based upon consideration of the behaviour of two immiscible liquids in contact in a connected vessel, allowance being made for different pressures acting on the respective free surfaces, i.e., air pressure in the cupola. The iron is collected in a ferro-hearth, and the slag is granulated in a stream of water.

M. J.

Plech J.

Improved Design of the Base of Centrally Charged Cupolas. Mgr
J. Plech. (Stalinskoi, 1955, 8, (3), 77-78). [In Czech].

[Handwritten signature]

PLCH, J.

PLCH, J.

Experiences with cupola. p. 111 (Slovenski. Prava. Vol. 1, no. 5, May 1954)

SO: Monthly List of East European Accessions, (EAL), IC, Vol. 4, No. 6,
June 1955, Uncl.

PLCH, Jaromir, inz., C.Sc.

Concrete screens in civil engineering. Inz stavby 9 no.9:330-333 S '61.

1. Vyskumny ustav stavebnictva, Bratislava.

PLCH, Josef, Dr.

Tumor of the glomus caroticum. Cas. lek. cesk. 94 no.47-48:
1336-1338 25 Nov 55.

1. Z otolaryngologicke kliniky lekarske fakulty MU v Brne
Pred. prof. Dr. Frant. Ninger.
(GLOMANGIOMA)

PLCH, Josef, MUDr.

Indications for bronchoscopy. Cesk. otolar. 5 no.2:70-73 Apr 56.

1. Z Kliniky nemoci usnich, nosnich a krcnich lekarske fakulty
MU v Brne, Prednosta prof. MUDr. Frant. Ninger.
(BRONCHOSCOPY,
indic. (Cz))

PLCH, Josef, MUDr.

Laryngeal cysts. Cesk. otolar. 5 no.3:157-161 May 56.

1. Z kliniky pro choroby usni, nosni a krcni lekarske fakulty
MU v Brne, prednosta prof. MUDr. Frant. Ninger.

(CYSTS,
larynx (Cz))
(LARYNX, cysts,
(Cz))

L 34755-66

ACC NR: AP6026255

SOURCE CODE: CZ/0038/66/000/002/0065/0070

AUTHOR: Flech, Jiri; Zidek, Vlastimil

ORG: Institute for the Research, Production and Use of Radioisotopes, Prague
(Ustav pro vyzkum, vyrobu a vyuziti radioizotopu)

TITLE: Transistorization of portable radiometric instruments

SOURCE: Jaderna energie, no. 2, 1966, 65-70 19

TOPIC TAGS: radiometry, measuring instrument, transistorized circuit, pulse counter, gamma counter, scintillation counter, radiation instrument

ABSTRACT: On the basis of analysis of the properties of integrating circuits, the article discusses problems in the designing of transistorized radiometric instruments working on the principle of a pulse counter. An instrument is described which serves for the control of contamination of the object and also an instrument having the character of a gamma relay and scintillation counter for work in the field. This article was presented by V. Slezak. Orig. art. has: 7 figures and 8 formulas. [JPRS: 35,386]

SUB CODE: 18, 09 / SUBM DATE: none / ORIG REF: 002 / SOV REF: 003

Card 1/1 1198

UDC: 539.12.074.5
0916 1804

PLCH, JOSEPH

CZECHOSLOVAKIA / General Problems of Pathology. Tumors.

T-5

Abs Jour : Ref. Zh.-Biol. No 2, 1958, No 7779

Author : Plch, Joseph

Inst :

Title : Laryngeal Cysts.

Orig Pub : Ceskosl. Otolaryngol., 1956, 5, No 3, 157-161

Abstract : No abstract.

Card : 1/1

PEAH, J.

TECHNOLOGY

periodicals: INTERNATIONAL JOURNAL Vol. 6, no. 11, Nov. 1958

PEAH, J. Injecting a scaling membrane in the dentist's office. p. 47.

Monthly List of East European Accessions (F 41) LC Vol. 8, no. 5
May 1959, Unclass.

UCHVYTL, B.; PLCH, J.

Investigations on functions of the vestibular apparatus in patients with chronic otitis media and following radical operations. Cesk. otolar. 8 no.4:218-221 Aug 59.

1. Klinika nemoci usnich, nosnich a krcnich, prednosta prof. dr. Frant. Ninger.

(OTITIS MEDIA, physiol.)(VESTIBULAR APPARATUS, funct.tests)

PLANNING, N.

PLANNING, N. Let us give positions in cooperative societies to women. . . 3.

Vol. 8, No. 48, Nov. 1955

ROLNY POLSKIE

AGRICULTURE

Warszawa, Poland

So: East European Accession, Vol. 5, No. 5, May 1956

PLEKHANOV, E.F., inzh.

Fire hazards of ground-type connecting equipment. *Teoriya i praktika*
no.11:82-85 N '65. (1965)

1. Pozharno-ispytatel'naya stantsiya Upravleniya požarnoy
okhrany Upravleniya okhrany obshchestvenogo poradka
Ivanovskogo oblasti po ispytaniyu i razrabotke.

is valid for ionized components of air at 1000 at and in the whole temperature range from 12000⁰ to 20000⁰K. Calculation formulas for the initially mentioned temperature- and pressure ranges are given, as are the calculated values of the thermodynamic function and the composition of air. The calculations for the pressure range from 0.001 to 1 at were carried out with consideration of a dissociation of N₂ and O₂, and simple and double ionization of N, O, and Ar. In the pressure range from 1 to 1000 at the dissociation of N₂ and O₂, the formation of NO, and simple ionization of N, O, and Ar were considered. The results are given diagrammatically (Fig. 7). An electronic computer of the type BU (VTs) of the AN SSSR (AS USSR) was used for the calculations. This work was carried out in course of a research program under the direction of Professor A. S. Predvoditelev in the institute named below. There are 7 figures, 1 table, and 10 references: 5 Soviet and 5 German.

Card 2/3

Card 3/3

24.5300

S/076/60/034/06/18/01
B015/B061

AUTHORS: Stupochenko, Ye. V., Samuylov, Ye. V., Pleshanov, A. S.,
Rozhdestvenskiy, I. B. (Moscow)

TITLE: Thermodynamic Functions of Air at High Temperatures

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6,
pp. 1265-1274

TEXT: The thermodynamic properties of air and its components were examined at temperatures from 12000° to 20000°K and pressures from 0.001 to 1000 at. The calculations had to be carried out in three stages for such high temperatures: 1) Calculation of the thermodynamic functions of the components of air, and a calculation of the equilibrium constants for dissociation and ionization; 2) Calculation of the composition of air at different temperatures and pressures, and 3) Calculation of the thermodynamic properties of air. It was established that the thermodynamic functions of air can be calculated with sufficient accuracy by methods of statistical physics, with consideration of the Coulomb interaction of the charged particles by the Debye-Hückel equation, and with

Card 1/3

PLEKHANOV, A.F.; KOCHNEV, M.I.

Phase transformations of solid state zinc. Trudy Inst.met.UFAE
SSSR no.3:37-42 '59. (MIRA 13:4)
(Zinc) (Phase rule and equilibrium)

PLCH, J.

Pathology and clinical picture of the esophagus. Cesk. otolaryng.
11 no.6:329-332 D '62.

(ESOPHAGUS)

KUCERA, Miroslav; PLCH, Josef

Esophageal strictures. Cesk. otolaryn. 11 no.4:193-199 Ag '62.

I. Usni, nosni a krcni oddeleni Krajske detske nemocnice v Brne,
prednosta dr. M. Kucera Usni, nosni a krcni odd. II. mestske
nemocnice v Brne, prednosta dr. J. Plch.
(ESOPHAGEAL STENOSIS) (BURNS CHEMICAL)

PLCH, Josef

Making casting pits on gun casting machines. Slevarenstvi 11
no.1:26 Ja '63.

1. Ceskomoravska-Kolben-Danek, Blansko.

PLCH, Josef

Gunning cores from starch mixtures. Slevarenstvi 11 no.7:
284-285 JI '63.

1. Ceskomoravska-Kolben-Danek Blansko.

M 13

Normalisation of Moulds for Die-Casting. V. M. Plazkiy (*Litovno: Delo*
(*Foundry Practice*), 1938, (8,9), 4-9). [In Russian.] Four types of moulds
are described: with ejection by cog transmission; with mechanized ejection;
with removable inserts; with filling in the plane of the joint. N. A.

ASB-31-A INTERNATIONAL LITERATURE CLASSIFICATION

PLAZHEVSKA, M. [Plarzewska, M.]; TERLIKOVSKI, R. [Terlikowski, R.]

New equipment for schools. Tekh. est. 2 no. 10:22-23 0 '65
(MIRA 19:1)

1. Institut tekhnicheskoy estetiki, Pol'skaya Narodnaya Respublika.

POLAND/Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 21, 1958, 70842.

Author : Talik, Flazhek.

Inst :

Title : Synthesis of Certain Derivatives of the Hydrazide
of Thiocyanacetic Acid.

Orig Pub: Roczn. Chem., 1957, 31, No 3, 1069-1070.

Abstract: For the purpose of preparing new antituberculosis agents, $\text{SCNCH}_2\text{CONHN}=\text{CHR}$ (I) were synthesized. From the action of ClCH_2COCl upon $\text{RCH}=\text{NNH}_2$ in pyridine, $\text{RCH}=\text{NNHCOCH}_2\text{Cl}$ (II) was prepared, which with KCNS in acetone forms I.

The following were obtained: II, $\text{R} = \text{C}_6\text{H}_5$, m.p. 164°C .; II, $\text{R} = 3\text{-NO}_2\text{C}_6\text{H}_4$, m.p. 209°C .; I, $\text{R} = \text{C}_6\text{H}_5$, m.p. 251°C .; I, $\text{R} = 3\text{-NO}_2\text{C}_6\text{H}_4$, m.p. 278°C .

Card : 1/2

PLAZEWSKI, E.

How the Provincial Committee of Village Cooperatives at Bydgoszcz organizes purchasing and contracting plans, p. 5. (ROLNIK SPOLDZIELCA, Warszawa, Vol. 8, no. 3, Jan. 1955.)

SO: Monthly List of EastEuropean Accessions, (EEAL), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

L 41817-66 EWP(j) RM

ACC NR: AP6031692

(N)

SOURCE CODE: PO/0099/66/040/003/0405/0410

AUTHOR: Lewicka, Krystyna; Plazek, Edwin (Deceased)19
EORG: Department of Organic Chemistry I, Institute of Technology, Wroclaw (Katedra Chemii Organicznej I Politechniki)TITLE: Some reactions of substitution of 3-hydroxypyridine N-oxide. Part II.
BrominationSOURCE: Roczniki chemii-annales societatis chimicae polonorum, v. 40, no. 3, 1966,
405-410

TOPIC TAGS: bromination, pyridine

ABSTRACT: The bromination of 3-hydroxypyridine-N-oxide was studied and it was found that the directive effect of the hydroxy group in position 3 of the pyridine nucleus is stronger than that of the N-oxide group. Orig. art. has: 1 figure. [Based on authors' Eng. abst.] [JPRS: 36,002]

SUB CODE: 07 / SUBM DATE: 20Apr65 / ORIG REF: 001 / OTH REF: 002

Card 1/1 af

0919

0292

BARYCKI, Jozef; PLAZEK, Edwin

Preparation of 2-alkoxy-3,5-diaminopyridine. Roczniki chemii 37 no.11:
1443-1446 '63.

1. Department I of Inorganic Chemistry, Technical University,
Wroclaw.

TYKA, Roman; PLAZEK, Edwin

Triarylphosphides. Pt. 2. Roczniki chemii 37 no.3:283-291 1963.

Katedra Chemii Organicznej I, Politechnika, Wrocław.

BATKOWSKI, Tadeusz; PLAZEK, Edwin

Certain reactions of 3-amino-2,6-dimethylpyridine and
3-amino-2,4,6-trimethylpyridine. Pt. 2. Roczniki chemii 37
no.3:273-282 '63.

1. Katedra Chemii Organicznej, Politechnika, Wroclaw.

SLIWA, Wanda; PLAZEK, Edwin

Sulfapyridine derivatives with 2 methyl groups. Acta pol. pharm.
20 no.3:253-257 '63.

1. Z Katedry Chemii Organicznej I Politechniki Wroclawskiej
Kierownik: prof. dr E. Plazek,
(SULFONAMIDES) (CHEMISTRY, PHARMACEUTICAL)

BATKOWSKI, Tadeusz; PLAZEK, Edwin

On certain reactions of 3-amino-2,6-dimethyl-pyridine and 3-amino-2,4,6-trimethyl-pyridine. I. Reactions of the diazo derivatives. Roczniki chemii 36 no.1:51-61 '62.

1. Katedra Chemii Organicznej, Politechnika, Wrocław.

S/081/62/000/017/048/102
B158/B186

AUTHORS: Tyka, R., Prazek, E.

TITLE: Triaroylphosphides

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 257, abstract.
17Zh330 (Bull. Acad. polon. sci. Sér. sci. chim., v. 9,
no. 9, 1961, 577-584 [Ger.; summary in Russ.])

TEXT: $(\text{ArCO})_3\text{P}$ (Ia-e, where a Ar = C_6H_5 , b Ar = m- $\text{CH}_3\text{C}_6\text{H}_4$, c Ar = n- $\text{CH}_3\text{C}_6\text{H}_4$,
d Ar = a- C_{10}H_7 , e Ar = $\beta\text{-C}_{10}\text{H}_7$) is obtained by the action of PH_3 on
25% solutions of ArCOCl in dry pyridine at 25°C (sometimes heating is
necessary at the end of the reaction). I is separated by pouring the
reaction mixture into water (I and m.p. in $^\circ\text{C}$ are given): a, 149; b, 136;
c, 137; d, 163; e, 190. The reaction does not have any common value and
when substituted ArCOCl is used it proceeds in another direction. I is
stable to water and dilute acids. I acylates CH_3OH and $\text{C}_2\text{H}_5\text{OH}$ with many
hours' heating at $140\text{-}160^\circ\text{C}$. giving $\sim 100\%$ yields of ArCOOR . When reacted

Card 1/2

PLAZEK, EDWIN

Distr: 4E3d

2-Chloro-3,5-dinitropyridine. Zofia Talik and Edwin Plazek (Tech. School, Wrocław, Poland). *Roczniki Chem.* 34, 165-76 (1960).—Several expts. concerning the unusually high mobility of the Cl atom in 2-chloro-3,5-dinitropyridine were carried out, in particular the substitution of the former by OH, OMe, OEt, OCH₂CH₂O, OPh, SPh, SH, —SS—, —S—, SCN, and —CN groups. Some expts. were carried out for this purpose on 2-bromo-3,5-dinitropyridine. The high mobility of the halogen atom in these compounds was confirmed. M. Trelnauer

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2-jag(NB)(may)
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TALIK, Z.; PLAZEK, E.

Investigations on 2-chlor-3,5-dinitropyridine. I. Exchange reactions of the halogen atom. II. Comparative attempts of the relative flexibility of the halogen atom. III. Possibilities of using 3,5-dinitro-2-chlorpyridine for investigations of protein reduction and amino acids. *Bul chim PAN* 8 no.5:219-230 '60.

1. Katedra Chemii Organicznej, Politechnika, Wroclaw. Presented by T. Urbanski.

PLAŻEK, E. P.

Distr: 4E3d

9.

~~The nitration of 3-hydroxypyridine N-oxide. Krystyna Lewicka and Edwin Plażek (Tech. Hochschule, Wrocław, Poland). *Rec. trav. chim.* 78, 644-7 (1959) (in German).--~~

To 2 g. 3-hydroxypyridine N-oxide in 10 ml. concd. H₂SO₄ was added dropwise a mixt. of 1 ml. concd. HNO₃ and 1 ml. concd. H₂SO₄ at 0°, the mixt. warmed to 15°, cooled to 0°, and after 24 hrs. at room temp. the solu. poured over crushed ice to give a ppt., which was washed with cold H₂O and air dried to yield 1.7 g. 2-nitro-3-hydroxypyridine N-oxide (I), m. 202-3° (decompn.). I (3 g.) in 30 ml. AcOH was treated with 6 g. Fe powder and one drop concd. HgCl₂ soln. at 100° (water bath), after 30 min. 2 g. Zn dust added in equal portions, the mixt. kept 30 min. at 100°, cooled, made alk. (pH 8) by addn. of 36 ml. 25% aq. NH₃ and 85 ml. satd. (NH₄)₂CO₃ soln., and extd. with Et₂O to give 0.7 g. 2-amino-3-hydroxypyridine (II), m. 166-8°, pierate m. 246-8°. Reaction of 0.5 g. II with picryl chloride (*C.A.* 31, 3918°) gave 2,3-pyrido-2',4'-dinitro-1,4-benzoxazine, m. 223°. I (4 g.) in 40 ml. CHCl₃ treated with 2.48 ml. PCl₅, refluxed 1 hr., the CHCl₃ distd., 20 g. crushed ice added to the residue, a small amt. of pptd. II filtered off, and the filtrate treated with (NH₄)₂CO₃ to pH 6 to give after 2 hrs. a ppt., which was filtered off, washed with H₂O, and air dried to give 0.4 g. 2-chloro-3-hydroxypyridine, m. 169-70°. Similarly, 4 g. I treated with 2.44 ml. PBr₃ gave after distn. of the CHCl₃ and adding 20 g. ice a small amt. of ppt., m. 115-17° (not further examd.); the filtrate after (NH₄)₂CO₃ treatment pptd. 1.3 g. 2-bromo-3-hydroxypyridine, m. 183-4°.

E. F. Perłowski, Jr.

5-9-58 (we)

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PLAZEK, EDWIN

7
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4E3d
29 (NB)
4E3c ji

On the preparation of 3,5-dinitro-2-hydroxypyridine. Jadwiga Kozłowska and Edwin Plazek (Politechnika, Wrocław, Poland). *Roczniki Chem.* **33**, 831-4 (1959) (German summary).—2-Hydroxy-3-nitropyridine (I), m. 225° (15 g.), is added slowly to a mixt. of 30 ml. 40% oleum with 30 ml. HNO₃ (d. 1.52), keeping the temp. at 80-90°, followed by heating 40 min. The product is poured into 225 ml. cold water, left 12 hrs., and 50% 2-hydroxy-3,5-dinitropyridine (II), m. 175-6°, filtered off and recrystd. from 20% AcOH. 2-Aminopyridine (12 g.) is dissolved in 48 ml. H₂SO₄ monohydrate (III) and 6 ml. HNO₃; with 12 ml. III added, keeping the temp. at 35-55°, followed by heating to 80° during 15 min. The product is poured into 150 ml. H₂O, neutralized with (NH₄)₂CO₃, and alkalinized with 10 ml. concd. NH₃. The dried, raw product (10 g. mixt. of 2-amino-5- and -3-nitropyridine) is dissolved in 21.5 g. III, poured into 145 ml. H₂O and 114 g. ice, and diazotized with 13.2 g. NaNO₂ and 46 ml. H₂O. The mixt. is stirred 40 min. at 0°, boiled with C and filtered while hot. The ppt. is filtered off, the filtrate condensed to 150 ml., and neutralized to pH 4 to obtain further ppt. (hydroxynitropyridines). The dried ppt. is nitrated in the same way as I to obtain 37% II. A. Kreglewski

Card 1/1

aht

97

PLAZEK, E.

1 ✓ The reaction of some 2-substituted derivatives of 4-aminopyridine with nitrous acid. IV. 2-Methoxy-4-aminopyridine. Tadeusz Talik and Edwin Plazek (Politechnika, Wrocław, Poland). *Roczniki Chem.* **33**, 1343-8(1959)(German summary); cf. *CA* **50**, 12045f; **53**, 18954d.—4-Amino-2-methoxypyridine was able to be diazotized. 4-Hydroxy-2-methoxypyridine (m. 135°, yield 50.8%), 4-iodo- (b₁₁ 106°, 31.7%), 4-chloro- (m. 20°, b. 177-8°, 30.6%), 4-bromo- (b₁₁ 87°, 26.4%), 4-thiocyanato- (m. 62-3°, 11.2%), and 4-cyano-2-methoxypyridine (I) (m. 85°, 32.4%) were obtained from the diazonium compd. Thus, substitution of a first-order group (no double or semipolar bond) in 2-position made the 4-amino group like a normal aromatic amine. Hydrolysis of I gave 2-hydroxyisonicotinic acid. A. Kreglewski—

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1-709(N3)

On the reactions with nitrous acid of certain derivatives of 4-aminopyridine, substituted in position 2 or 2 and 6. III. Tadeusz Feliński and Edwin Piątek (Politechnika, Wrocław, Poland), *Roczniki Chem.* 33, 387-96 (1959) (German summary); cf. C.A. 52, 8407b. — It was established that 2-methyl-, 2,6-dimethyl-, and 2,6-dichloro-4-aminopyridine can be diazotized like aromatic compds., in spite of the fact that the NH₂ group is bound in the position 4. The following products of reactions of the diazonium salts were prepd.: 4-iodo- (m. 43°, yield 29.6%); 4-chloro- (25.5%; picrate m. 203°); 4-bromo- (37.7%, b. 180-1°, picrate m. 184°), and 4-cyano-2-methylpyridine (8.2%, b. 201° m. 46°; picrate m. 181°). 2-Methyl-4-pyridinocarboxylic acid (64.6%, m. 292°), 4-iodo- (19.6%, m. 89°; picrate m. 192°), 4-chloro- (21.5%; picrate m. 167°), 4-bromo- (42.6%, b. 194°; picrate m. 178°), 4-thiocyano- (17.85%, m. 63°; picrate m. 182°), and 4-cyano-2,6-dimethylpyridine (13.9%, m. 81°; picrate m. 174°). 2,6-Dimethyl-4-pyridinocarboxylic acid (m. 281°), 4-hydroxy- (65.4%, m. 196°), 4-iodo- (39.58%, m. 160°), 4-bromo- (35.84%, m. 95°), 4-cyano-2,6-dichloropyridine (m. 95°), and 2,4,6-trichloropyridine (30.1%, m. 32°). The substitution of diazonium by the CNS group was possible only in the case of diazonium salt of 2,6-dimethyl-4-aminopyridine. A. Kreglewski

4
4E2c (j)
4E3d
299 (May)

PLAŻEK, E

Synthesis of certain derivatives of thiocyanacetic acid hydrazide. Zofia Talik and Edwin Plażek (Politechnika, Wrocław, Poland). *Roczniki Chem.* **33**, 379-383 (1959) (German summary).—Attempts to prep. $\text{NCSCH}_2\text{CONH-NH}_2$ (I) were unsuccessful, but 3 stable *hydrazones* $\text{NCSCH}_2\text{CONHN:CHR}$ (II), of I were obtained as described below. Into 3.6 g. PhCH:NNH_2 in 10 ml. $\text{C}_2\text{H}_5\text{N}$ at -30° was dropped 3.4 g. ClCH_2COCl in 20 ml. Et_2O , the mixt. then poured into 400 ml. H_2O , and the solid filtered off and recrystd., from $\text{H}_2\text{O-EtOH}$ to yield 3.4 g. $\text{ClCH}_2\text{CONHN:CHR}$ (III) (R = Ph), m. 164° . Similarly were obtained the analogs III (R = *m-O}_2\text{NC}_6\text{H}_4*), m. 207° , and III (R = *o-HOC}_6\text{H}_4*), m. $198-0^\circ$. III with KSCN in Me_2CO gave II (R = Ph), m. 251° (alc.), II (R = *m-O}_2\text{NC}_6\text{H}_4*), m. 278° (AcOH); and II (R = *o-HOC}_6\text{H}_4*), m. 295° (decomp.) ($\text{C}_6\text{H}_5\text{N}$). IIa (R = Ph) and IIb (R = *m-O}_2\text{NC}_6\text{H}_4*) showed strong tuberculostatic action *in vitro*. Double hydrazides of chloro-, m. 161° , and thiocyanacetic acid, decomp. 200° , were also prepd. A. Kreglewski

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463d
2 J. J. (WB)

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J. J.

PLAZEK, Edwin

7

✓ The preparation of tribenzoylphosphine. Edwin Plazek ^H and Roman Tyka (Univ. Wrocław, Poland). ~~Koruniki~~ ^{4E3d}
~~Chem. 33, 548-50 (1960) (German summary).~~ Tribenzoyl- ^{2998(NB)}
 phosphine, PBz₃ (I), yellow, m. 147° (alc.), is formed by
 action of PH₃ on BzCl in anhyd. C₆H₆N at room temp. with
 heating at the end of reaction to 50°. I is stable in the
 presence of H₂O and dil. acid solns., whereas NaOH decomps.
 it into PH₃ and NaOBz. I reacts with EtOH to yield
 EtOBz, with 25% NH₃ soln. to give BzNH₂, and with aniline
 at the b.p. to give BzNHPh. A. Kreglewski

929

PLAZEK, E.; ROPUSZYNSKI, S.

On the nitration of aromatic compounds by means of nitroglycerin or other polynitrates. p. 397

ROCZNIKI CHEMII. (Polska Akademia Nauk) Warszawa, Poland, Vol. 33, no. 2, 1959

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

PLAZEK, E.; TALIK, T.

On the reaction of some 4-aminopyridine derivatives substituted in 2- or 2- and 6- position with nitrous acid. III. p. 387

ROCZNIKI CHEMII. (Polska Akademia Nauk) Warszawa, Poland, Vol. 33, no. 2, 1959

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

PIAZEK, E.; TALLK, Z.

Synthesis of some rhodanoacetic acid hydrazide derivatives. p. 379

ROCZNIKI CHEMII. (Polska Akademia Nauk) Warszawa, Poland, Vol. 33, no. 2, 1959

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

PIAZEK, E.

W. Lamp's Stanislaw Kostanecki; zycie i dzialalnosc naukowa (Stanislaw Kostanecki; His Life and Scientific Work); a book review. p. 342.

WIADOMOSCI CHEMICZNE. (Polskie Towarzystwo Chemiczne) Wroclaw, Poland.
Vol. 13, no. 6, June 1959.

Monthly List of East European Accessions (EEAT) IC, Vol. 9, no. 1, Jan. 1960.

Uncl.

Country : POLAND G
Category : Organic Chemistry. Synthetic Organic Chemistry
Abs. Jour : Ref Zhar - Khim., No 5, 1959. No. 15254
Author : Plazek, E.; Ropuszynski, S.
Institut. : -
Title : Study of Nitration by Means of Nitroglycerin

Orig Pub. : Roczn. chem., 1958, 32, No 3, 681-683

Abstract : In concentrated H_2SO_4 , nitroglycerin is a strong nitrating agent and at about 20° it nitrates nitrobenzene to m-dinitrobenzene with a yield of 90%, and toluene to a mixture of nitrotoluenes containing up to 10% of m-nitrotoluene and a small quantity of dinitrotoluenes; it nitrates aniline at temperatures from 0 to $20-30^\circ$ (optimal temperature) to a mixture of m- and p-nitroaniline and 2,4-dinitroaniline. In the latter case,

Card: 1/2

PLAZEK, Edwin

Distr: 4E3d

Preparation of tri(2-pyridyl)phosphine and tri(2-pyridyl)arsine. Edwin Plazek and Roman Tyka (Politech. Wroclaw, Poland). *Zeszyty Nauk. Politech. Wroclaw., Chem.* No. 4, 79-81(1957)(German summary).--To a 2-lithio-pyridine soln. (obtained from 8 g. 2-bromopyridine after Wibaut, *et al.*, *C.A.* 46, 11197d) a mixt. of 2.3 g. PCl₅ with 20 ml. Et₂O was added dropwise during 30 min., the temp. being continuously raised from -68 to -58°. The mixt. heated to room temp., extd. with 100 ml. 2N H₂SO₄, the ext. alkaliized, the ppt. filtered off, washed with H₂O and crystd. from 1:1 MeOH-H₂O, gave 1.7 g. tri(2-pyridyl)phosphine, m. 114°. Similarly tri(2-pyridyl)arsine was obtained, m. 85° (cyclohexane), in 25% yield. I: Stecki

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2-May
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jjf

PLAZEK, E.

E. PLAZEK, '95. Nierentowski (On the 30th anniversary of his death). Chemical News
(Poland), No. 7-8, July-August 1955

PL AZEK, ELWIN

Chem

The abnormal reaction of 2-chloro-4-aminopyridine with nitrous acid. Tadeusz Talik and Elwin Plazek (Polytech., Warsaw). *Roczniki Chem.* 29, 1015-28 (1955). 2-Chloro-4-aminopyridine (I) reacts with HNO_2 abnormally because of the Cl in the 2-position. I was prepd. by reduction (Fe and Zn dust in presence of HgCl in glacial AcOH) of 2-chloro-4-nitropyridine N-oxide, m. 152-4° (from H_2O). Diazotized I gives by heating, 2-chloro-4-pyridol; by Sandmeyer reaction, 86.9% 2-chloro-4-iodopyridine, 52.9% 2-chloro-4-bromopyridine, m. 26-7° (from H_2O + acetone), 58.5% 2-chloro-4-thiocyanatopyridine, m. 110° (from dil. alc.), and 64.7% 2-chloro-4-cyanopyridine (II), m. 49°; by coupling (2-chloro-4-pyridylazo)-2-naphthol, m. 195-7° (from alc.); and by reduction (SnCl_2) 87.1% 2-chloro-4-hydrazinopyridine, m. 85-6° (from C_6H_6) [picrate, m. 175-6° (from alc.)]. 2-Chloro-4-pyridylhydrazone of BzH, m. 210-11° (from dil. alc.). II gives by hydrolysis (HCl) 2-chloro-4-pyridinecarboxylic acid. A. Sementsov.

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AM

PLAZEK, Edwin

TALIK, Zofia; PLAZEK, Edwin

Preparation of chlorides of 2- and 4-pyridino sulfonic acids and of 2- and 4-pyridonosulfonamides. Acta Poloniae pharm. 12 no.1: 5-12 1955.

1. I Katedra Chemii Organicznej Politechniki Wroclawskiej. Kierownik: prof. dr E.Plazek.

(PIPERIDINES, preparation of chloropiperidinesulfonic acids & chloropiperidinesulfonamides)
(SULFONAMIDES, preparation of, chloropiperidinesulfonamides)

PLAZEK, E.

PLAZEK, E. Stefan Niementowski; on the 30th anniversary of his death. p. 371.

Vol. 9, no. 7/8, July/Aug. 1955
WIADOMOSCI CHEMICZNE
SCIENCE
Poland

So: East European Accession, Vol. 6, No. 5, 1957

ILLEGIBLE

BLAZEK, Edwin

1000

Comparative experiments on relative mobility of halogen
 atoms attached to aromatic ring. Blazek, Edwin and Vondra
 (1954) *J. Chem. Phys.*, 22, 10, 1720-1724
 (1954) *Collect. Czechoslov. Chem. Commun.*, 19, 10, 1720-1724
 (English summary). The mobility of Br bound to aromatic
 ring in presence of nitro groups or in presence of N
 in the ring was investigated. 3-nitro-5-bromopyridine (I)
 was prep. A Cu catalyst had no effect on the mobility of
 halogen bound to an aromatic ring in presence of nitro
 groups in 3- and 5-positions. However, there is a marked
 increase in mobility of Br in neutral benzene and
 especially in 1,5-dinitrobenzene. Two nitro groups
 in ortho position exert a great influence on the mobility of the
 halogen. In 2,6-bromopyridine there is a certain increase in
 mobility. It was obtained by treating 3-nitro-5-bromopyridine
 with NH_3 . Dark yellow crystals, insoluble in
 water. It m. 141. F. T. Handel.

(1) [Handwritten marks]

PLAZEK, E.

TALIK, T.: PLAZEK, E.

Synthesis of hydrazides of pyridine sulfonic acid. Acta Poloniae
pharm. 12 no.3:179-184 '53.

1. Katedra Chemii Organicznej Politechniki Wroclawskiej Kiero-
wnik: prof. dr. E. Plazek.
(PYRIDINES, preparation of,
pyridinesulfonic acid hydrazides)

PLAZEK EDWIN

Chemical Abstracts
 May 25, 1954
 Organic Chemistry

The oxidation of quinoline and β -picoline by nitric acid. Edwin Plazek and Helena Kozdrojówna Univ. Inst. Technol., Wrocław, Poland. *Rozprawy Chem.* 25, 331-33 (1951)(English summary).--HNO₃ at the h.p. has practically no oxidizing effect upon quinoline (I) or β -picoline (II); however, at higher temp. HNO₃ oxidizes I and II. I (2.5 g) heated in a closed vessel with 15 ml. HNO₃ (d. 1.4; use of acid of higher d. is disadvantageous) 1st 5 hrs. at 130°, then, after cooling and removing the formed gases, another 5 hrs. at 150°, and last 5 hrs. at 180°, gave a product, which, after removal of the HNO₃, sol. in 50 ml. H₂O, and treatment with CuSO₄ and AcONa, yielded a blue-green Cu salt of nicotinic acid; this salt treated with H₂S gave a ppt. of CuS and after evapn. of liquid, 0.75 g. (32%) nicotinic acid (III), m. 226°. II (3 g.) and 15 ml. HNO₃ with Hg(NO₃)₂ as a catalyst were heated 8 hrs. at 150-5°, the mixt. evapd. on a water bath, and the residue dissolved hot in 50 ml. H₂O; cooling gave cryst. nicotinic acid nitrate (IV); m. 187-90°. IV decompd. with soda and recrystd. from H₂O gave an 8.2-g. fraction, m. 232-3°, of nicotinic acid; the supernatant liquid of this fraction acidified, treated with MgSO₄ and AcONa, and decompd. with H₂S gave CuS (filtered off), and a 2nd fraction (2.1 g.) of pure III, m. 232-3° (from H₂O). The filtrate from IV after treatment with Na₂CO₃, evapn., acidification with HCl, and treatment with MgSO₄ and AcONa, gave a product, m. 205-15°, which, recrystd. from H₂O, yielded 2.3 g. of a mixt. of III and isonicotinic acid (sepn. failed). The total yield of the products from II was 14.4 g. (60%).

Gene A. Wagoner

Bv. ab.

*BH-1 Organic Chemistry
General (Heterocyclic)*

Tetra-ethylamide of the dipicolinic acid. A. Inasinski and E. Plasek (*Roem. chem.*, 1951, **26**, 142-143).—*α*-Lutidine (2 : 6-dimethylpyridine) is oxidized with KMnO_4 to pyridine-2 : 6-dicarboxylic acid, which is converted into the di-acid chloride (SOCl_2) and treated with NHEt_3 to give pyridine-2 : 6-di(carbon-NN-diethylamide). The compound is of no pharmacological interest. S. M. RYBICKA.

Be also.

*B11-1, Organic Chemistry;
General Chemistry.*

Partial amination of dibromobenzenes. E. Plazek (*Rec. chem., 1951, 25, 136-141*).—Three isomeric bromoanilines are prepared from isomeric dibromobenzenes when treated with NH_3 -MeOH in presence of CuSO_4 as a catalyst. On treatment with aq. NH_3 , three isomeric diaminobenzenes are prepared. S. M. RYBICKA.

PLAZEK, E.; SKURSKA, Z.; MANSKI, W.

Experimental chemotherapy of typhoid with new sulfonamide-sulfetyne preparation. Med.dosw.mikrob. 2 no.2:216 1950. (CLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Wroclaw.)

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The iodination of 2 picoline. F. Platz and Z. Rodewald. *Russkii Khim* 21, 150 (1947). 2-Picoline (20 g.), 100 g. 50% oleum, and 60 g. iodine, on heating 6 hrs. at 200°, addn. of 100 g. 50% oleum, addnl. heating 4 hrs., 210°, pouring the mixt. into 400 cc. H₂O, treatment with Na₂CO₃ until alk., and steam-distn., yielded 5-iodo-2-methylpyridine (I), b. 205-15°, h. 105-6°, pierate m. 150°. I (5 g.), on boiling 5 hrs. with 10 g. KMnO₄ in 450 cc. H₂O, extrn. of the unreacted I with Et₂O, filtration of the MnO₂, and acidification of the filtrate with H₂SO₄, gave 5-iodopicolinic acid, m. 204°. The acid heated slightly above its m.p. gives 3-iodopyridine, m. 52°, pierate m. 154°. I (5 g.), on heating 20 hrs. at 130-5° with 10 cc. concd. NH₄OH and 0.5 g. CuSO₄, and extrn. of the mixt. with Et₂O, gives, on removal of the Et₂O, 2-methyl-5-aminopyridine, m. 92-5° (on crystn. from C₆H₆, the m.p. rises to 97-8°); pierate m. 203°.

H. H. Szmant

ASM - S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

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1 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LL LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WU WV WW WX WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ

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4-(4-Aminophenylsulfonamido)-1-ethoxybenzene. E. Plazek and J. Richter. *Roczniki Chem.* 21, 1189 (1947). *p*-Phenetidine (10 g.), 20 cc. C.H.N., and 17 g. *p*-AcNHCl₂SO₂Cl, on heating 30 min., addn. of the mixt. to 200 cc. H₂O, and crystn. of the ppt. from EtOH, gives *N*²-acetyl-*N*¹-(*p*-ethoxyphenyl)sulfanilamide, m. 206°, and the latter on hydrolysis with NaOH yields *N*¹-*p*-ethoxyphenylsulfanilamide, m. 197°. H. H. Szwant.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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The scientific activities of Prof. Dr. Edward Sucharda
Edwin Plöck *Rozniki Chem.* 21, 75 (1957)
Biographical sketch with portrait, and a bibliography of
Sucharda's publications. H. H. Szmant

ASPLA METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSES AND PROPERTIES INDEX

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10

Sulfanilamidopyridine derivatives. E. Plazek and J. Richter. *Roczniki Chem.* 31, 55-8(1947). Isomers and homologs of 2-sulfanilamidopyridine (I) were studied in view of differences in their solubilities. 3-Sulfanilamidopyridine (II), m. 253°, was prepd. by heating a mixt. of 4 g. sulfanilamide, 4 g. 3-bromopyridine, 2 g. anhyd. K₂CO₃, 0.4 g. Cu, and 0.15 g. KI 1.5 hrs. at 160-20°, and then 1 hr. at 190-200°. 2,6-Dimethyl-3-sulfanilamidopyridine (III), m. 211°, was prepd. by adding 11.4 g. p-AcHN(C₆H₄)SO₂Cl to 6 g. 3-amino-2,6-dimethylpyridine in 20 cc. pyridine, pouring the reaction mixt. into 200 cc. H₂O, and hydrolyzing the Ac compd. with 10% NaOH. In a similar fashion was prepd. 2,4,6-trimethyl-3-sulfanilamidopyridine (IV), m. 184° (Ac deriv. m. 247°). The solubilities of the above compds. is as follows:

	H ₂ O	NaOH	Na ₂ CO ₃	NH ₄	AcOH
I	-	+	-	-	-
II	-	+	+	+	-
III	-	+	+	-	+
IV	+	+	+	-	+

H. H. Szmann

A 58-51 A METALLURGICAL LITERATURE CLASSIFICATION