BASINSKA, Halina; ORYLSKI, Zenon; PERKOWSKI, Tadeusz

On the solubility of potassium-bismuth ferrocyanide $KBi[Fe(CN)_6]$.
Chem anal 7 no.5:911-914 '62.

1. Department of Inorganic Chemistry, N.Copernicus University, Torun.

BASINSKA, Halina; ORYLSKI, Zenon; CHARASZKIEWICZ, Aleksandra

Solubility of bismuth ferrocyanide $Bi_4[Fe(CN)_6]_3$.
Chem anal 8 no.3:473-474 '63.

1. Katedra Chemii Nieorganicznej, Uniwersytet M. Kopernika, Torum.

BASINSKA, Halina; MILKE, Helena; ORYLSKI, Zenon; RYCHLIK, Wieslaw

Studies on the adaptation of alkali ferrocyanide and ferricyanide in volumetric analysis. Studia Tor chemia 5 no. 1: 67-77 '64.

1. Department of Inorganic Chemistry, M. Copernicus University, Torun, and Department of General Chemistry, School of Agriculture, Olsztyn.

ACC NR: AP6034980 SOURCE CODE: UR/0361/66/000/003/0083/0089

AUTHOR: Orynbasarov, M.

ORG: none

TITLE: First boundary value problem for the heat conduction equation, when the boundary of the region has two corner points

SOURCE: AN KazSSR. Izvestiya. Seriya fiziko-matematicheskaya, no. 3, 1966, 83-89

TOPIC TAGS: heat conduction, boundary value problem, differential equation, successive approximation

ABSTRACT: The problem consists of solving the equation

$$\frac{\partial U}{\partial t} = a^2\left(\frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2}\right); \quad (0 < x < l;\ y(x) < y < \infty;\ t > 0), \tag{1}$$

satisfying the initial condition

$$U(x, y, t) \mid_{t=0} = 0 \tag{2}$$

and the boundary conditions

$$U(x, y, t) \mid_{x=0} = \varphi(y, t), \tag{3}$$

$$U(x, y, t) \mid_{x=l} = \psi(y, t), \tag{4}$$

$$U(x, y, t) \mid_{C} = f(x, y, t), \tag{5}$$

ACC NR: AP6034980

and of obtaining a solution in the form

$$U(x, y, t) = \int_0^t d\tau \int_0^\infty \varphi(\eta, \tau) \sum_{n=-\infty}^{\infty} G(P_n, \bar{Q}, t-\tau)\, d\eta + \int_0^t d\tau \int_0^\infty \psi(\eta, \tau) \sum_{n=-\infty}^{\infty} G(P_n, \bar{Q}', t-\tau) d\eta$$
$$+ \int_0^t d\tau \int_C \mu(s_Q, \tau) \sum_{n=-\infty}^{\infty} [G(P_n, Q, t-\tau) - G(P_n', Q, t-\tau)] ds_Q, \quad (6)$$

where

$$G(P, Q, t-\tau) = \frac{r_{PQ} \cos(r_{PQ}, n_Q)}{4a^2\pi(t-\tau)^2} \exp\left[-\frac{r^2_{PQ}}{4a^2(t-\tau)}\right]$$

The boundary of the region in which the function U(x, y, t) is defined has the form of a curve with two sharp cusps (Fig. 1). Conditions for the existence of a solution are obtained. Orig. art. has: 1 figure and 20 formulas.

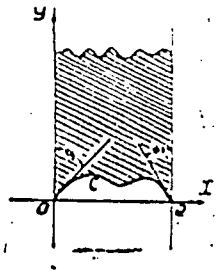


Fig. 1. Diagram of region where heat conduction problem is solved

SUB CODE: 12/ SUBM DATE: 00/ ORIG REF: 002

Card 2/2

CATEGORY : Microbiology

ABS. JOUR. : Ref Zhur-Biologiya, No.4, 1959, No. 14775
AUTHOR : Orynbayev, S.
INST. : Inst. of Microbiology and Virology, AS KazSSR

TITLE : Actinomycetes-Antagonistic of Agents of Botulate Deer Scab of Sheatoes.

ORIG. PUB. : Tr. In-ta mikrobiol. i virusol. AN KazSSR, 1958, 2, 51-60

ABSTRACT : About 50 of the actinomycetes cultures isolated from different soils of the surrounding districts of the city of Alma-Ata proved to be antagonistic to agents of root rot of potatoes - Bacterium sepedonicum. Most of the were found in soils underneath alfali and orchard grass, and the fewest in soils under potatoes, onions, and wheat. The activity of the culture liquid of the isolated actinomycetes-antagonists depended strictly on the

CARD: 1/3

Country :
CATEGORY :

ABS. JOUR. :

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : sources of carbon and nitrogen nutrition. It was established that the antibiotic substance of the investigated actinomycetes rapidly entered the tubers and concentrated in the cell and the aqueous juices, not losing its bactericidal properties by this. The most active strain was utilized to control root rot in field; potato infection decreased 2 - . Pre-sowing treatment of potato tubers with liquid cultures of strain also [illegible]

CARD: 2/3

COUNTRY :
CATEGORY :

ABS. JOUR. :

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT :

germination and stimulated growth and develo
m ns. -- A. Ye. Kosmachev

CARD: 3/3

ORYNBAYEV, S., Candidate of Biol Sci (diss) -- "Actinomycetes antagonistic to the causative agent of potato ring rot, and investigations of the possibility of their practical application". Alma-Ata, 1959. 18 pp (Kazakh State U im S. M Kirov), 150 copies (KL, No 22, 1959, 112)

ORYNBAYEV, S.

30(1) SOV/30-59-1-50/57

AUTHORS: Afrikyan, E. K., Kuchayeva, A. G., Candidates of Biological Sciences

TITLE: Use of Antibiotics in Plant Cultivation (Primeneniye antibiotikov v rasteniyevodstve)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 142-143 (USSR)

ABSTRACT: A conference dealing with this subject took place in Yerevan from 8 to 13 October, 1958; it had been called by the Institut mikrobiologii Akademii nauk SSSR (Microbiological Institute of the Academy of Sciences USSR), the Vsesoyuznyy institut sel'skokhozyaystvennoy mikrobiologii VASKhNIL (All-Union Institute for Agricultural Microbiology of the VASKhNIL) and the Sektor mikrobiologii Akademii nauk Armyanskoy SSR (Department for Microbiology of the Academy of Sciences of the Armyanskaya SSR).
M. Kh. Chnyizaryan spoke about microbe metabolites which promote the development of higher plants.
N. M. Pidoplichko reported on investigations of several years' duration carried out by Ukrainian mycologists on soil fungus flora and its utilization in the fight against agricultural plant diseases.
V. I. Filay, S. N. Moskovets dealt with the utilization of the fungus Trichoderma in fighting the diseases of cotton bushes, potatoes and some other agricultural breeds.
R. O. Mirzabekyan's report dealt with the excretions of actinomycetes which produce active antibiotics against the carriers of potato wart disease and diplodia in maize.
S. Orynbayev, V. N. Marunina spoke about the utilization of the actinomycetes antagonists in fighting potato ring rot and mucous bacteria in cabbage.
O. M. Kublanovskaya reported on the effect of preparations from cultures of actinomycetes to prevent wilt of the cotton bush.
V. G. Tumanyan, E. K. Afrikyan, R. A. Bobikyan, Ye. T. Nikitina

Card 2/4

spoke about the successful utilization of several bacteria against diseases of vegetable cultures and potato wilt.
Yu. M. Voznyakovskaya, O. G. Shirokov, A. D. Nalbandyan dealt with the utilization of epiphyte microflora in fighting several fungus diseases in plants.
D. M. Trakhtenberg, K. I. Rodionovskaya, L. P. Sharykina, V. G. Okoent'yan mentioned results obtained in investigations of phytobacteriomycine as well as its utilization in fighting diseases occurring in cotton bushes and beans.
R. M. Galachiyan, Ye. P. Protsenko, A. G. Kuchayeva, R. A. Chelnokina tried the effect of antibiotic preparations as tomatoseed steeps against bacterial cankers in fighting diseases of decorative plants.
Ye. Ya. Rashba, K. I. Bel'tyukova described the investigation of plant antibiotics.
I. E. Bekker, A. B. Silayev spoke about the production of the preparations "grisecful'vin" and "trikhotetsin" and their effect on fungus carriers of diseases in cabbage, wheat and water melons.
A. G. Kuchayeva reported on results achieved in the utilization of antibiotics against unpaired silk moths.

Card 3/4

V. P. Israil'skiy, N. D. Muyanova, M. D. Kulikovskaya dealt with the formation of phytopathogen forms of bacteria resistant to antibiotics.
K. A. Vinogradova, N. S. Agre described a method of rapid determination of the effect of antibiotics on plants. The participants in the conference found the work carried out in this field in the USSR insufficient. The organization of an industrial production of antibiotics and microbe preparations for the purpose of their large-scale practical introduction in agriculture was pointed out as necessary. The necessity of an intensification of joint investigation of the growth stimuli and the development of plants of microbial origin was further pointed out. The importance of coordination of work for purposes of research and utilization of antibiotics in plant breeding was emphasized as well as the holding of periodical conferences dealing with this problem.

31

ORYNBAYEV, S.

Actinomyces antagonistic to the causative agent of potato ring rot and the possibility of their practical utilization. Report No.2. Trudy Inst. mikrobiol. i virus. AN Kazakh. SSR 3:148-155 '59. (MIRA 13:2)

(POTATO ROT) (ACTINOMYCES)

SEYKETOV, G.Sh.; ORYNBAYEV, S.

Physiology of Trichoderma fungi with antagonistic properties. Trudy Inst. mikrobiol. i virus. AN Kazakh. SSR 4:114-123 '61.
(MIRA 14:4)
(FUNGI—PHYSIOLOGY)

ABRAMOVA, N.V.; ORYNBAYEV, S.

Morphological and cytological changes in the mycelium of the Trichoderma fungus during its development. Trudy Inst. mikrobiol. i virus. AN Kazakh. SSR 4:130-139 '61. (MIRA 14:4)
(MYCELIUM)

ORYNBAYEV, S.

Cytology of the fungus Rhizoctonia solani. Trudy Inst.mikrobiol.i virus.AN Kazkah.SSR 6:37-41 '62. (MIRA 15:8)
(RHIZOCTONIA)

ORYNBAYEV, T.

Terminal ileitis. Zdrav. Kazakh. 21 no.6:18-20 '61. (MIRA 15:2)

1. Iz III kafedry khirurgii (zav. - prof. V.I.Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey.
(ILEUM--DISEASES)

CRYSHAKA, V.A.

The LK-4M flax-pulling combine. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.1:65-68 '63. (MIRA 16:2)
(Combines (Agricultural machinery))

KHEYFETS, Yu.I., inzh.; ORYSHICH, I.V., inzh.

Effect of aging conditions on the amount of residual austenite in fuel system equipment parts. Metalloved.i term.obr.met. no.4:59-61 Ap '62. (MIRA 15:4)
(Steel--Hardening) (Metals, Effect of temperature on)

MITITELU, C., ing.; MINUT, V., ing.; ORZA, N., ing.

Output obtained at the plant for fiber recovery from the waste water of the Reconstructia Pulp and Paper Mill.
Cel hirtie 12 no. 12: 407-417 D '63.

ORZACH S.

7

l-Phenylacetylcarbinol. VIII. S. Bauer, L. Masler and S. Orzach (Slovenské akad. vied, Bratislava, Czech.). *Chem. zvesti* 12, 687-9(1958)(German summary); cf. *C.A.* 53, 10100d.—The occurrence of racemization of optically active *l*-PhCH(OH)Ac, m. 123-4°, $[\alpha]_D^{25}$ −311.08°, and *l*-1-phenyl-1-methoxy-2-propanone (I), m. 107-9°, $[\alpha]_D^{25}$ −150.69°, in KOH-MeOH, measured by rotary polarimeter, indicates that no enol compd. is formed, and that I does not undergo racemization since even after a long time it does not lose its optical activity. Jan Micka

5
2-May
1

JWJ
1/1

Distr: 4E2c(j)

ORZECHOWSKA, A.

A conference in Lublin on the reading of the professional press and books. Przegl kolej mechan 21 no.12:320 D '64.

ORZECH WSKA, A.

Railroad Olympics for the mechanical service workers, p. 223

PRZEGLAD KOLEJOWY MECHANICZNY. (Wydawnictwa Komunkacyjne)
Warszawa, Poland
Vol 11, No. 7, July 1959

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, No. 11,
November 1959
Uncl.

ORZECHOWSKA, Anna.

Distr: 4E2c(j)/4E3d 7

A rapid method of acenaphthene determination [in pure and technical product]. Jan Juraszewicz, Józef Jaszczur, Anna Orzechowska, and Józef Rzasa (Zakład Przerobu Węglopochodnych Inst. Chem. Przeróbki Węgla, Zabrze, Poland). *Chem. Anal.* (Warsaw) 3, 147–56(1958) (English summary).—A method of acenaphthene (I) detn in pure or tech. product, based on the relation between I content and its m. or f. points, is described. Two formulas are derived: $P = 1.4 \cdot t_m - 33$ and $P = 1.5 \cdot t_f - 42.5$ where P = I content in %, t_m and t_f = the m.ps. and f.ps. of the samples. The formulas were valid for mixts. contg I 50–100%. Error of the detns. was 0.15 to ±1%. The detn. time was not above 20 min. The method can be applicable in plant labs. for det. I in coal-tar products. The results of I detns. by the picrate method and the method described were compared for 54 samples contg. variable amts. of I. M.ps. were detd. in the Thiele tube, f.ps. with the aid of the Zhukov tube. The latter detns. were made on the basis of Polish Standard PN/C-04018. Z. Kurtyka

7
2-May
2

ORZECHOWSKA, Aniela; SZCZEGIOWA, Maria

Vitamin levels in the blood and urine and their influence on the treatment of skin diseases. Przegl. derm., Warsz. 7 :141-151 Mar-Apr 57.

1. Z Kliniki Dermatologicznej A. M. w Warszawie Dyrektor: prof. dr J. Jablonska. 2 Zakladu Higieny Zywienia PZH w Warszawie. Kierownik: prof. dr A. Szczygiel. Adres: Monsieur le Secretaire General de L'Union Internationale contre le Peril Venerien 2, Quai Saint-Pierre, Cannes (Alpes-Maritimes)- France.

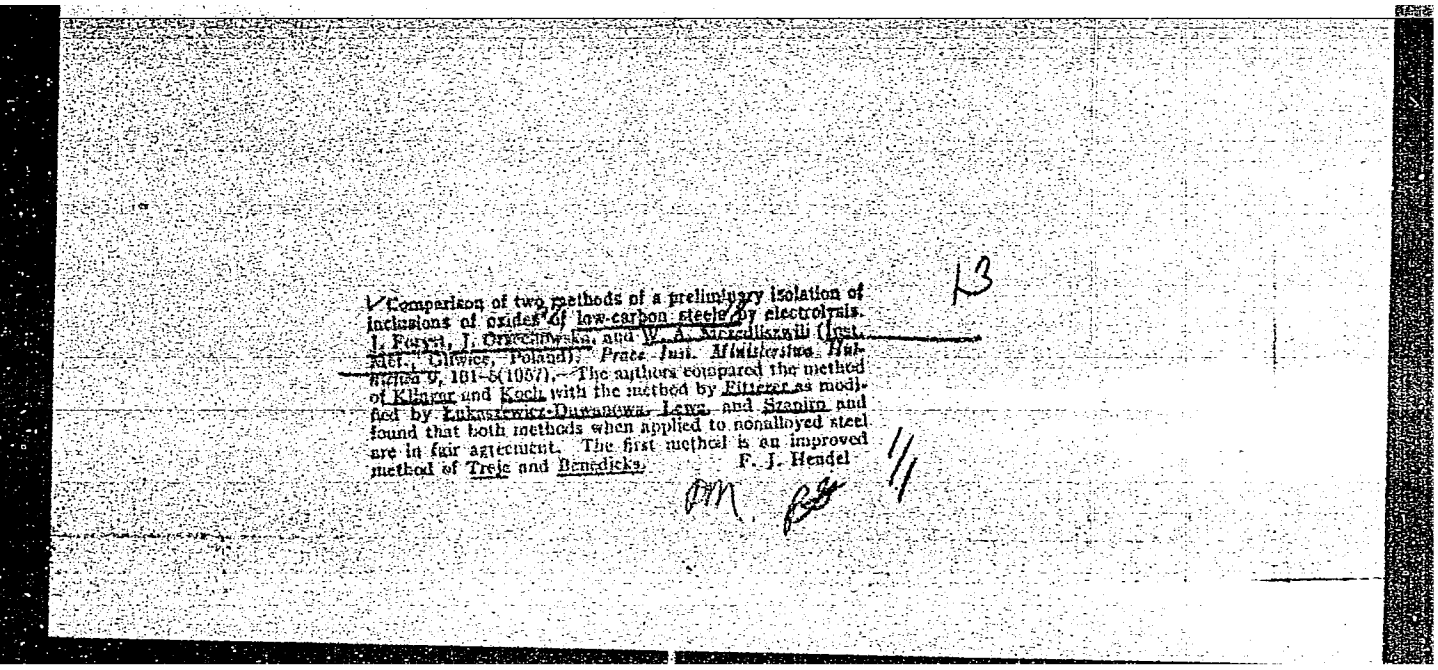
(SKIN DISEASES, metab.
vitamin levels in blood & urine, ther. significance (Pol))
(VITAMINS, in therp.
in blood & urine in skin dis., ther. significance (Pol))

ORZECHOWSKA, B.

Guzowska, B. ; Orzechowska, B.; Kunicki-Golfinger, W.

"The Properties of Onion (Allium Cepa L.)" Pt. 1. p. 175
(Acta Microbiologica Polonica, Vol. 1, No. 3, 1952, Warszawa)

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



Comparison of two methods of a preliminary isolation of inclusions of oxides of low-carbon steels by electrolysis. J. Forst, J. Orzechowska, and W. A. Szredliszalli (Inst. Met., Gliwice, Poland). *Prace Inst. Mineralurgii Hutnictwa* 9, 101–6(1957).—The authors compared the method of Klinger and Koch with the method by Fitterer as modified by Łukaszewicz-Duwanowa, Lewa, and Szapiro and found that both methods when applied to nonalloyed steel are in fair agreement. The first method is an improved method of Treje and Benedicks. F. J. Headel

FORYST, Juliusz, doc. dr; ORE KI, Kazimierz, mgr inz.; ORZECHOWSKA, J., mgr inz.; ZELAZKIEWICZ, Jerzy

Testing physicochemical properties of inclusions originating during deoxidizing steel by Fe-Si and Al deoxidizers. Biul inf inst metal zel no.1:12-15 '64.

1. Department of Physical Chemistry of Steels of the Institute of Iron Metallurgy, Gliwice.

JANIAKOWA, Alina; ORZECHOWSKA, Krystyna

Histamine level in atherosclerosis. Polskie arch.med.wewn. 30 no.7:981-984 '60.

1. Z III Kliniki Chorob Wewnetrznych A.M. we Wroclawiu Kierownik: prof. dr med. E.Szczeklik i z Zakladu Farmakologii A.M. we Wroclawiu Kierownik Zakladu: prof. dr J.Hano.
(ARTERIOSCLEROSIS blood)
(HISTAMINE blood)

ORZECHOWSKA, Krystyna

Monoamine oxidase inhibitors. Postepy hig. med. dosw. 16 no.3:401-431 '62.

1. Z Zakladu Farmakologii AM we Wroclawiu Kierownik: prof. dr J. Hano.

(MONOAMINE OXIDASE INHIBITORS)

POLAND

MIKLASZEWSKA, Jadwiga, INDYKOWA, Maria, and ORZECHOWSKA, Krystyna. Division of Internal Diseases (Oddzial Wewnetrzny) Hospital (Szpital) im. Stefana Zeromskiego in Krakow-Nowa Huta (Director: Docent, Dr. J. MIKLASZEWSKA)

"A Reticulum Cell Sarcoma with Symptoms of Hypersplenia and Panagglutination."

Warsaw-Krakow, Przeglad Lekarski, Vol 19, Ser II, No 3, [24 Mar] 63, pp 189-191.

Abstract: [Authors' English summary] A description is given of a reticulum cell sarcoma in a 27-year old single woman. The disease took the very rarely encountered form of splenomegaly, with enlargement of only one of the peripheral lymph nodules. Besides hemolytic anemia and the hemorrhagic diathesis, the patient also exhibited panagglutination, a positive Commbs reaction, and a moderate degree of beta hyperglobulinaemia. The ten references contain two each French and English, and the others Polish.

1/1

KOTLAREK-HAUS, Sabina; HALAWA, Bogumil; ORZECHOWSKA, Krystyna

Steroid diabetes and diseases of the hematopoietic system.
Pol. tyg. lek. 18 no.46:1720-1724 11 N'63

1. Z III Kliniki Chorob Wewnetrznych AM we Wroclawiu; kierownik: prof.dr. Edward Szczeklik.

*

MIKLASZEWSKA, Jadwiga, doc. dr.; DOLEZAL, Marian; SZMIGIEL, Zbigniew; ORZECHOWSKA, Krystyna

Hemagglutination reaction in the detection of leukocyte antibodies. Pol. tyg. lek. 20 no.9:301-303 1 Mr'65.

1. Ze Szpitala im. St. Zeromskiego; Oddzial Wewnetrzny Nowa huta w Krakowie (kierownik: doc. dr. J. Miklaszewska); z Kliniki Chorob Zakaznych Akademii Medycznej w Krakowie (kierownik: prof. dr. Wl. Fejkiel) i z III Kliniki Chorob Wewnetrznych Akademii Medycznej w Krakowie (kierownik: prof. dr. J. Aleksandrowicz).

ORZECHOWSKI E.

ORZECHOWSKI E. Remembrances from tourist excursions. p. 15
TURYSTA Warszawa, Poland
Vol. 21 No. 12 Dec. 1955

SOURCE: East European Accessions List (EEAL) Vol. 5 No. 6 June 1956

18(5,7) PCL/39-59-4-5/14

AUTHOR: Orzechowski, Henryk, Engineer

TITLE: Definition of the Length of the Cylindrical Part of a Floating Roll Mandrel During the Drawing of Tubes

PERIODICAL: Hutnik, 1959, Nr 4, pp 158-160 (Poland)

ABSTRACT: Floating mandrels are still in the experimental stage. In Britain and Germany they are used for drawing small copper and brass tubes. They combine many of the advantages of short mandrels and of the process where no mandrel is used at all. The importance of the length of the mandrel's cylindrical part lies in this, that if it is too long drawing power is increased and the tube may break, whereas if it is too short it may altogether slip from the tube during drawing. The remainder of this brief article is devoted to the derivation of a formula permitting the calculation of the length of that part of the mandrel. The author arrives at the formula:

$$l = \frac{D + d}{2d} l_1 \cdot \beta$$

Card 1/3

Definition of the Length of the Cylindrical Part of a Floating Roll Mandrel During the Drawing of Tubes

where D is the diameter of the leading part of the mandrel, d is the diameter of the cylindrical working part of the mandrel, l_1 is the length of the conical part of the mandrel and ß is an abbreviation for $\frac{tg\ a - f}{f(+ftga)}$ where a is the degree of inclination of the conical part of the mandrel, f is the coefficient of friction of the tube against the conical part of the mandrel and tg is nowhere defined by the author. The author points out that his formula is not entirely accurate due to the fact that he has taken f to be equivalent to f_1 in the course of his derivation, f_1 being the coefficient of friction of the tube against the cylindrical part of the mandrel. Experiments carried out at the PWiR in Wroclaw showed that the length of the cylindrical part of a floating mandrel depends on the coefficient of friction. There are 2 diagrams and 4 references , 1 of which is Polish

Card 2/3

PCI/39-59-4-5/14

Definition of the Length of the Cylindrical Part of a Floating Roll Mandrel During the Drawing of Tubes

and 3 Soviet

ASSOCIATION: PMiR, Wroclaw

✓

Card 3/3

P/043/61/000/002/001/001
A223/A126

AUTHOR: Orzechowski, Henryk, Engineer

TITLE: Drawing of tubes with movable mandrel

PERIODICAL: Wiadomości Hutnicze, no. 2, 1961, 47-50

TEXT: The article describes the method of drawing nonferrous metal tubes with a movable mandrel. The factors which guide the choice of the tube production method are output and productivity. The output is the relation between the weight of the finished product or semi-product and the original weight of the material before processing, and is expressed by the formula

$$U_c = \left(1 - \frac{a}{L_1}\right)\left(1 - \frac{a}{L_2}\right)..\left(1 - \frac{a}{L_n}\right) \cdot \left(1 - \frac{b}{L_{n+1}}\right) \qquad (1)$$

where L_1, L_2, L_n, L_{n+1} are the length of tube after cutting and before pointing; a, the length of pointed tube end and b, the length of the cut tube end. The productivity can be expressed in meters of drawn tube per given time and is given by the formula

$$W = V \cdot \frac{tm}{tm + tp} \quad m/min \qquad (2)$$

Card 1/3

Drawing of tubes with movable mandrel

where V is the drawing speed in m/min; tm, the machining time in min, and tp the preparation time for processing in min. By substituting $tm = \frac{l}{V}$ where l is the length of drawn tube, the above formula becomes

$$W = \frac{V \cdot l}{V \cdot tp + l} \qquad (3)$$

High output and productivity indices are of considerable importance in the production of small-diameter tubing where several passages are required. Non-ferrous metal tubing can be manufactured by 1) short-mandrel drawing and 2) without mandrel Drawing with short mandrel produces a smooth surface finish and allows a uniform diamter reduction, but the production process takes more time. In drawing without a mandrel the tube wall thickness reduction is negligible and the inner surface coarse. The method of drawing tubes with a movable mandrel, which combines the advantages of the above two described methods, is widely used in England for drawing small-diameter non-ferrous metal tubing. The drawing with movable mandrel may be carried out on a drawbench which can have a length of up to 60 m and a drawing speed of 120 m/min., or on a drum-drawbench with a diameter of up to 1.5 m and a speed of 200 m/min. In conclusion the author states that, although drawing with movable mandrel is an economical method for producing small-diameter non-ferrous

Drawing of tubes with movable mandrel

metal tubing, the process has certain drawbacks since it entails adherence to certain specific conditions and the use of modern machines and equipment. There are 5 figures and 4 Soviet-bloc references.

Card 3/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

ORZECHOWSKI, Henryk, inz.

"Green light" for experiment research laboratories. Rudy i metale 8 no.3:111-112 Mr '63.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

ORZECHOWSKI, Henryk, inz.

Annealing of bronze tubes. Rudy i metale 8 no. 5: 152-159 My '63.

ORZECHOWSKI, Henryk, mgr inż.

Metal flow during extrusion. Rudy i metale 9 nr.11:593-[illegible]
N '64.

ORZECHOWSKI, Jerzy

Development of the department [illegible] twenty-year period. [illegible]

Basic laws of soil mechanics. [illegible]

Safety coefficient of slope stability [illegible]

1. Department of Soil Mechanics of the Technical University, Poznan.

ORZECHOWSKI, Jerzy; PRZYSTANSKI, Jerzy

Laboratory research on the state of density of sands. Budown ladowe Poznan no.6:39-60 '64.

1. Department of Soil Mechanics of the Technical University, Poznan.

ORZECHOWSKI, Jerzy; KOSTRZEWSKI, Wlodzimierz

Physical and mechanical characteristics as well as the mineralogical composition of the Pliocene loams of the Poznan area. Budown ladowe Poznan no.6:61-82 '64.

1. Department of Soil Mechanics of the Technical University, Poznan.

ORZECHOWSKI, Jerzy, mgr. (Gdynia)

Development of literal and protectionist merchant marines. Tech gosp morska 11 no.5:132-133 '61.

ORZECHOWSKI, Jerzy, mgr.

The forecast situation on the freight market of tankers in 1962. Tech gosp morska 11 no.11:329-330 '61.

1. "Polfracht", Gdynia.

ORZECHOWSKI, Jerzy, doc. inz.; PRZYSTANSKI, Jerzy, mgr inz.

Studies on the bearing capacity of a short pile in a bundle. Archiw hydrotech 9 no.3:455-470 '62.

1. Katedra Mechaniki Gruntow, Politechnika, Poznan, ul. Curie-Sklodowskiej 5.

ORZECHOWSKI, J., mgr.; REJEWSKI, B., mgr.

The tramp freight market in 1961. Technika gosp morska 12 : c.3 7[illegible]-73 Mr '62.

1. "Polfracht", Gdynia

ORZECHOWSKI, Jerzy, mgr (Gdynia)

Sea transportation between the ports of northwestern Europe.
Tech gosp morska 12 no.7/8:194-196 Jl-Ag '62.

ORZECHOWSKI, K.; HOFFMAN, P.

Mining and processing of sulfur in Poland, p. 394.

NOVA TECHNIKA. (Ceskoslovenska vedeckyo-technicke spolecnost)
Praha, Czechoslovakia
No. 9, Sept. 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 11
Nov. 1959
Uncl.

ORZECHOWSKI, K., inz.; GOSCICKI, T., inz.

Sulpfur mines and processing plants in Tarnobrzeg. Przegl mech 20 no.19/20:586-589 '61.

1. Kopalnie i Zaklady Przetworcze Siarki, Tarnobrzeg.

ORZECHOWSKI, Marian

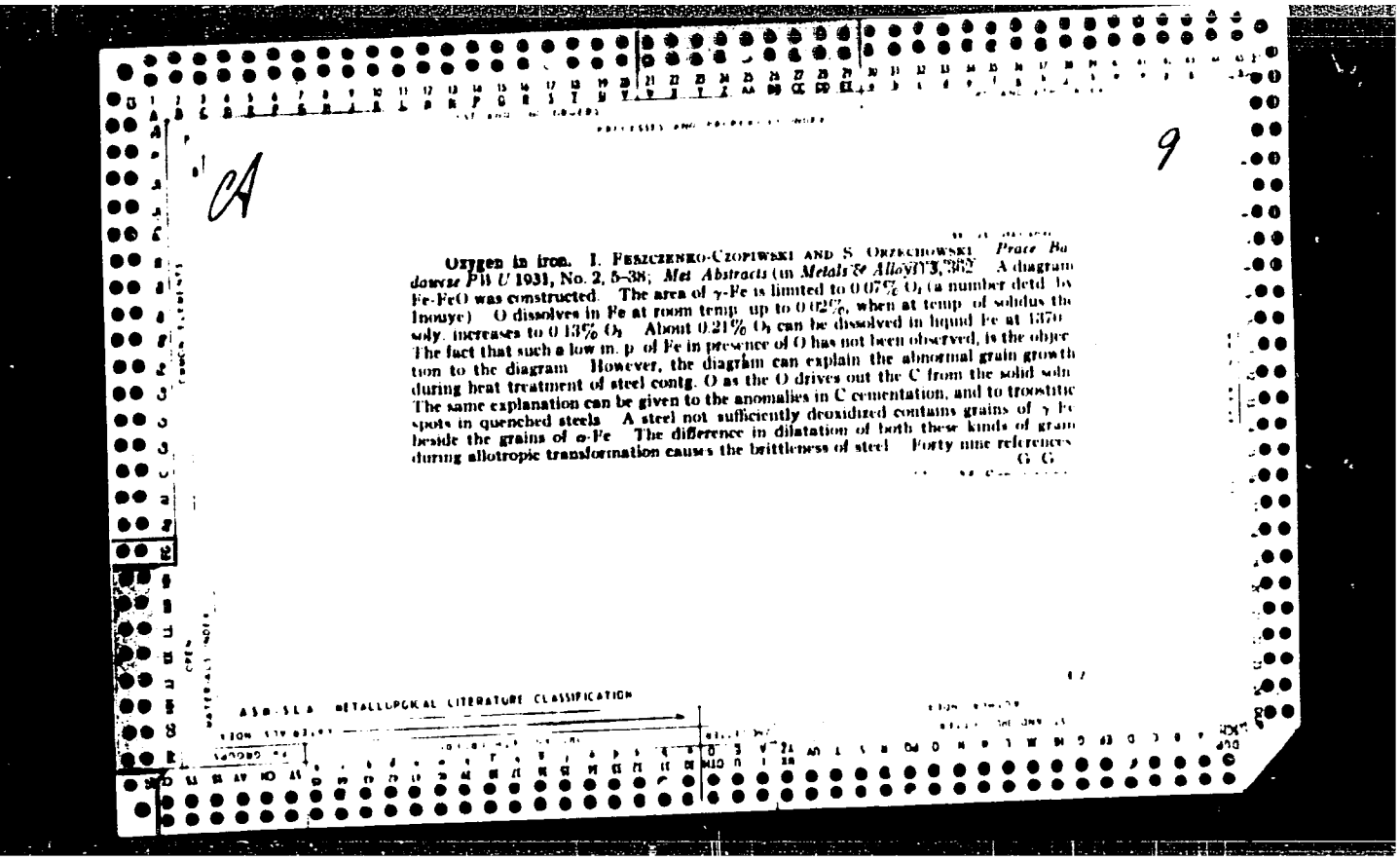
40th anniversary of Silesian insurrections; scientific session in Katowice, June 13-14, 1961. Nauka Pol 9 no.4:191-196 O-D '61.

1. Uniwersytet Wroclawski.

ORZECHOWSKI, Remigiusz, mgr.

Quality marks in the dairy industry. Normalizacja 29 no.11/12: 523-525 '61.

(Poland—Dairy products)



CA

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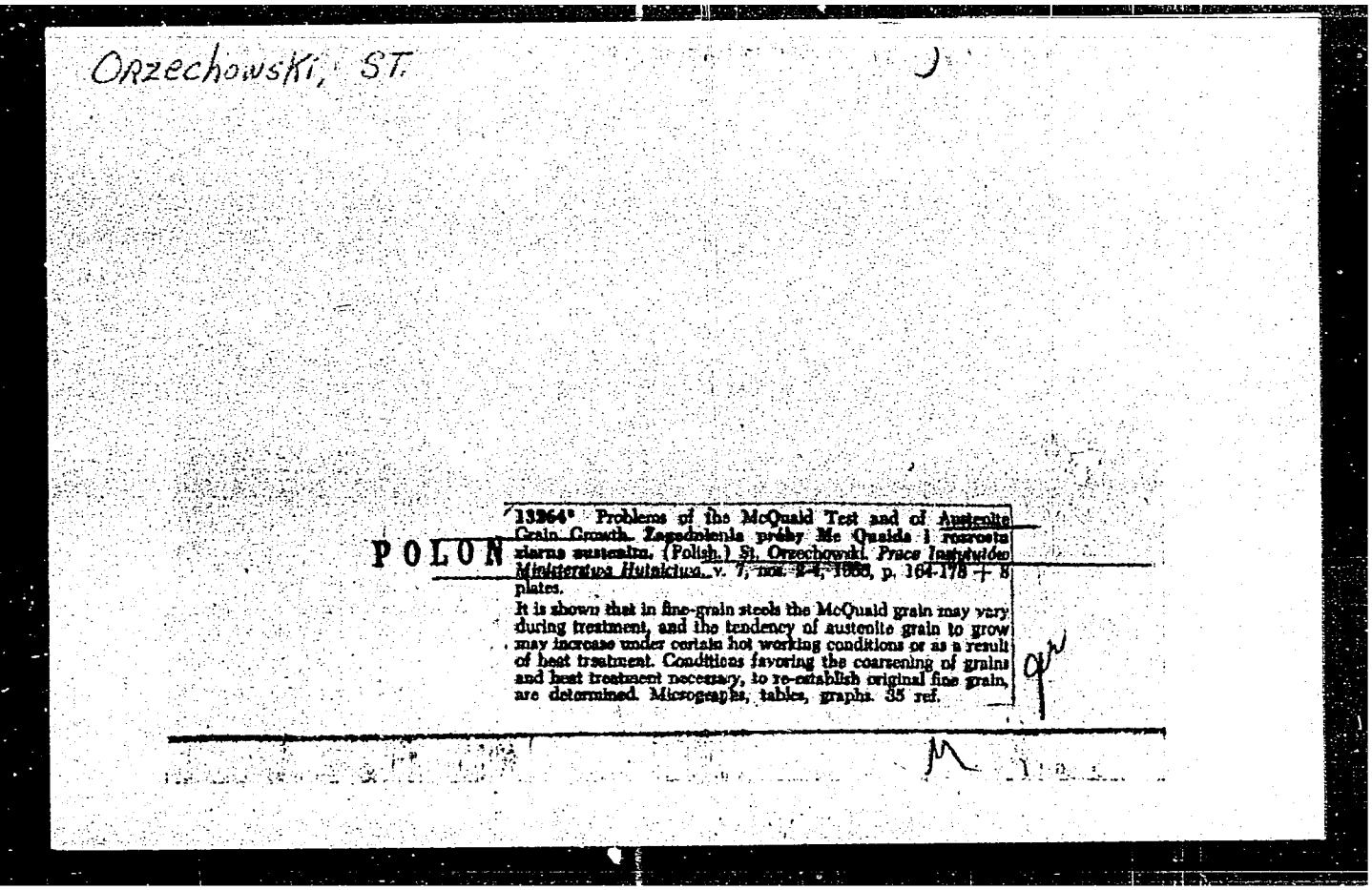
Oxygen in iron. I. Peszczenko-Czopiwski and S. Orzechowski. *Prace Badawcze PIB U* 1931, No. 2, 5–38; *Met Abstracts* (in *Metals & Alloys*) 3, 362. A diagram Fe-FeO was constructed. The area of γ-Fe is limited to 0.07% O_2 (a number detd. by Inouye). O dissolves in Fe at room temp. up to 0.02%, when at temp. of solidus the soly. increases to 0.13% O_2. About 0.21% O_2 can be dissolved in liquid Fe at 1570°. The fact that such a low m. p. of Fe in presence of O has not been observed, is the objection to the diagram. However, the diagram can explain the abnormal grain growth during heat treatment of steel contg. O as the O drives out the C from the solid soln. The same explanation can be given to the anomalies in C cementation, and to troostitic spots in quenched steels. A steel not sufficiently deoxidized contains grains of γ-Fe beside the grains of α-Fe. The difference in dilatation of both these kinds of grain during allotropic transformation causes the brittleness of steel. Forty nine references.

G. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Orzechowski, ST.

POLON

13264* Problems of the McQuaid Test and of Austenite Grain Growth. Zagadnienia próby Mc Quaida i rozrostu ziarna austenitu. (Polish.) St. Orzechowski. *Prace Instytutów Ministerstwa Hutnictwa*. v. 7, nos. 3-4, 1955, p. 164-178 + 8 plates.

It is shown that in fine-grain steels the McQuaid grain may vary during treatment, and the tendency of austenite grain to grow may increase under certain hot working conditions or as a result of heat treatment. Conditions favoring the coarsening of grains and heat treatment necessary, to re-establish original fine grain, are determined. Micrographs, tables, graphs. 35 ref.

Orzechowski, S.

Properties of chromium steel for carburizing of type 15H(CO1)
S. Orzechowski and C. Gawin (*Prace Inst. Mintst. Hutn.*, 1956, 8: 117–134).—The requirements, particularly for yield strength, o the PN/H 84029 standard for Cr steel for carburizing are excessive Tempering at −200°, following double hardening, is the fundamental condition to secure high impact strength but does not affect elongation and reduction of area. The influences of the second hardening process on the properties of the steel and their correlation with structural changes are analyzed. J. S. C.

Met 2 1-PRB

PRB RK

Prace Instytutów
Hutniczych
Nr 1, 1958

Distr: 4E3d

S. Orzechowski and H. Chełmińska

INVESTIGATIONS OF COOLING PROPERTIES OF HARDENING OILS

Summary

Investigations were made of seven types of mineral hardening oils, with regard to establish a rapid and simple method of determining cooling properties of oils, for receiving and control purposes of oils in industrial hardening workshops. Trials were made with previously

cients (*H* and *h*) depend on the diameter of the test piece, and of the relative distance of the considered point from its axis. On the base of results obtained by Russell's method the investigated oils were divided into three groups comprising different cooling properties. As well

Cooling properties of hardening oils. S. Orzechowski and H. Chełminska. *Prace Inst. Hutnic.* 10, 11–27(1958) (English summary).—Seven mineral hardening oils were used to establish a rapid and simple method for predicting the cooling properties of oils used for hardening. The sp. gr., C residue, Engler viscosity at 50°, flash point, fire point, acid no., and coke content of these oils were, resp.: (A) 0.899, 0.16%, 3.4°, 196°, 213°, 0.11, 0.097%; (B) 0.901, 0.42%, 2.7°, 184°, 205°, 0.28, 0.17%; (C) 0.914, 0.16%, 3.6°, 200°, 225°, 0.054, 0.14%; (D) 0.887, 0.18%, 2.5°, 200°, 223°, 0.15, 0.18%; (E) 0.895, 0.06%, 1.8°, 170°, 188°, 0.03, 0.15%; (F) 0.874, 0.13%, 1.3°, 121°, 139°, 0.056, 0.18%; (G) 0.900, 0.15%, 2.2°, 178°, 202°, 0.12, 0.16%. The heat transfer coeff. was defined by the Grossmann-Asimov method (cf. G., *et al.*, *C.A.* 32, 3738[3]; 37, 1968[3]). Test cylinders with polished surfaces and varying diams. (20, 25, 30, 35, 45, and 60 mm.), but with a const. diam. to length ratio of 1:3, were prepd. from rolled or forged bars of 35 HM Cr-Mo steel contg. C 0.32, Mn 0.68, Cr 0.96, and Mo 0.17%. The exptl. results were highly scattered and are considerably higher than those given by Grossmann. The cooling intensity coeff. *H* was not const. for a given cooling medium. The results were checked by the Russell method (cf. R., *et al.*, *Iron Steel Inst.* (London) *Spec. Rept.* No. 36, 25, 34(1946)) in order to det. the relation between *H* and the ratio r/b (r = the distance of a given point from the axis, b = diam. of specimen) and were calcd. for r/b = 0, 0.5, and 0.9. These data showed better correlation, agreed with those of Grossmann within a very narrow range, and enabled the grouping of the oils. Thus, oils A, B, C, and D are rated equally as poor cooling media, E and G are somewhat better for use on specimens of 20 and

S. [illegible], H. Ciochina

2

25 mm. in diam. F is a highly effective cooling oil giving highest H values under all exptl. conditions. It has been successfully used in hardening vehicle parts and can also be used in workshops for hardening tools and small construction elements. Results of testing by an improved calorimetric method (5-sec. or Gill method, *et al.*, *Tool Steels*, 1944 (*C.A.* 38, 2821[9]) were also not satisfactory. Cylindrical specimens, 25.4 mm. in diam. and 63.5 mm. long, and a ball, 3 mm. in diam., made of heat-resistant steel contg. 22% Ni and 22% Cr, and a Ag ball were heated to 800° in air and immersed in an H_2O calorimeter of 20° wall temp., and 30° initial oil temp. for 5–25 sec. The results obtained were scattered, which was probably due to a thin layer of cinders deposited on the steel through oxidation. With Ag specimens the scatter of the results starts at >15 or 20 sec. Exptl. conditions excluded the effect of inaccurate detn. of starting time, of the course of the 2nd cooling phase and of the flashing of the oil after immersion of the test specimen. It is suggested to refine the Gill method, to measure the time required for removal of half of the heat of the ball, and to discard the other two methods following a review and discussion of their characteristics. A method for calcg. H values is given. 23 references. Mordecai Medwied

ORZECHOWSKI, St.

Problem of the grain growth of austenite in fine-grained aluminum denitrided steels. Biul inf inst metal zel no.1:11-16 '63.

1. Institute of Iron Metallurgy, Gliwice.

S/137/63/000/002/029/034
A006/A101

AUTHORS: Orzechowski, St., Gawin, C.

TITLE: The austenite grain and temper brittleness in a range of 250 - 400°C

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1963, 66, abstract 2I375 ("Prace inst. hutn.", 1962, v. 14,no. 3, 137 - 149, Polish; summaries in Russian and English)

TEXT: The authors investigated the effect of austenite grain size upon a_k of low-tempered chrome-manganese steels (about 0.2% C, 0.3% Si, 1% Mn, 1% Cr) with admixture of Ti (about 0.1%) and Al (0.4 kg/ton of steel) and Cr-Ni-steels. Literature data on the fact that Ti and Al eliminate temper brittleness of Cr-Mn steel in the 250 - 400°C range, were not confirmed. Ti and Al securing fine grains in the investigated steels, according to McQued (Mak-Kved) do not fully remove the proneness of these steels to temper brittleness, although they reduce somewhat same. The effect of the size of the actual austenite grain was not single-valued, although smaller grain size is no doubt more favorable. The investigated Cr-Ni steel, type 12KhN3, was half teemed without Al and half with

Card 1/3

The austenite grain and...

addition of 1.2 kg Al per 1 ton of steel. The investigation was made for the purpose of determining the causes of the positive effect of Al in 12 X H3 (12KhN3) steel at 350°C: 1) whether this is due to small grain size according to McQued, 2) small size of actual austenite grains or 3) whether the Al nitrides play a decisive part. Quenching was performed from various temperatures (825, 875, 925, 1,000°C in water) for the purpose of changing the size of actual austenite grains; tempering was carried out within a range of 200 - 500°C. It is shown that Al admixtures, refining the grain according to McQued, reduce the temperature of transition from brittle to ductile failure, but do not improve a_k of the steel in the critical temperature range and even somewhat impair same at lower temperatures. In the range over the critical grain refining according to McQued the effect upon a_k is not single-valued (either positive or negative). Changes in the size of actual austenite grains within a range of no. 8.5 - 1, have not a single-valued effect upon a_k of the steel in the critical temperature range, but exert a decisive effect in the range below the critical one. In such a manner, a reduction of the proneness to temper brittleness in the range of 250 - 400°C does not take place because Al admixtures refine the grains according to McQued but, on the contrary, the smaller grains according to McQued and a reduced prone-

ness to temper brittleness are the results of the effect of the same process - i.e. binding of N_2 or the presence of AlN separations. The investigated Cr-Mn steels even with admixtures of Al and Ti were more prone to temper brittleness in the 250 - 400°C range than 12KhN3 steel melted without any admixtures. There are 13 references.

G. Rymashevskiy

[Abstracter's note: Complete translation]

ORZECHOWSKI, Stanislaw, prof.

Normalizing with utiliation of rolling temperature. Wiad hut 19 no.2:47-52 F '63.

ORZHEKHOVSKIY, S.[Orzechowski, S.] (Pol'skaya Narodnaya Respublika)

The McQuaid test of steel. Standartizatsiia 27 no.10:26-29 O '63. (MIRA 16:11)

ORZECHOWSKI, W.

"Transportation of Standard Guage Cars on Narrow Gauge Lines," Przeglad Kolejowy-Przewozowy. No. 5, Warsaw, WK, May 1956.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

ORZECHOWSKI, Wladyslaw, mgr inz.

New draft of the brake instructions. Przegl kolej mechan 13 no.6:177-179 Je '62.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

ORZECHOWSKI, Wladyslaw, mgr. inz.

Percentage diagrams of the breaking weight of rail venicles.
Przegl kolej mechan 14 no.4:106-108 Ap '62.

ORZECHOWSKI, Wladyslaw

Servicing and maintenance of brakes on trains under winter conditions. Przegl kolej mechan 10 [i.e.15] no.11:329-333 N'63.

1. Centralny Osrodek Badan i Rozwoju Techniki Kolejowej, Warszawa.

ORZECHOWSKI, Z.

Mickiewicz and maps made by Domeyko. p. 397. PRZEGLAD GEODEZYJNY. (Zwiazdk Nierniczych Rzecypospolitej. Polskiej) Warszawa. Vol. 11, no. 11, Nov. 1955.

So. East European Accessions List. Vol. 5, no. 1, Jan. 1956

ORZECHOWSKI, Z.

Industrial Safety and Hygiene in the work of agricultural surveying. p. 144. Vol. 12, no. 4, Apr. 1956 Warszawa

PRZEGLAD GEODEZYJNY

SOURCE: East European Acession List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

ORZECHOWSKI, Z.

Preservation and conservation of maps. p. 180.
Vol. 12, no. 5, May 1956 Warszawa

PRZEGLAD GEODEZYJ'Y

SOURCE: East European Acession List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

ORZECHOWSKI, Z.

Excursion of students of the Lodz Polytechnic within the scope of the Mutual Exchange Program with the German Democratic Republic. Ciepl masz przeplyw no.42:56-57 '62.

P/522/62/000/042/001/002
D262/D308

AUTHOR: Orzechowski, Zdzisław, Doctor of Engineering, Docent

TITLE: Test bed for the investigation of fuel injectors for gas turbine engines

SOURCE: Łódź. Politechnika. Katedra Cieplnych Maszyn. Cieplne maszyny przepływowe, no. 42, 1962, 7-15

TEXT: The author describes the following main assemblies of the universal type test bed, designed by the Department of Heat Engines, for investigation of stream and atomization parameters (macroscopic properties and microscopic structure) of fuel injectors: test bed housing; injector seat; fuel installation; aspirating ventilator for removal of fuel mist; fuel cooling installation; a device for measuring the fuel flow; a device for measuring the degree of zone uniformity; a device for measuring the apex angle of the stream; a device for measuring atomization parameters by the microphotographic method, which is at present being developed; additional equipment which includes switches, fuel pumps and remotely con-

Card 1/2

Test bed for the investigation ...

trolled fuel level indicator for feeding tanks. There are 4 figures.

ASSOCIATION: Katedra Cieplnych Maszyn Przepływowych PŁ. Pracownia Komór Spalania (Department of Turbine Heat Engines of Łódź Polytechnic. Combustion Chambers Laboratory)

Card 2/2

ORZECHOWSKI, Zdzislaw, doc. dr inz.; ZIELINSKI, Lucjan, mgr inz.

Comparative method of measuring the air distribution into the individual zones of gas turbine combustion chambers. Ciepl masz przeplyw no.47/48: 39-46 '63.

1. Kierownik Pracowni Spalania i Wymiany Ciepla, Katedra Cieplnych Maszyn Przeplywowych, Politechnika, Lodz (for Orzechowski). 2. Starszy konstruktor, Katedra Cieplnych Maszyn Przeplywowych, Politechnika, Lodz (for Zielinski).

SIKORA, Leopold; STRYSZEWSKA, Halina; CRZEL, Eugeniusz

Experiments in minimizing the finishing time of rolled sections.
Probl proj mut maszyn 13 no.2:56-58 F '65.

1. Institute of Iron Metallurgy, Gliwice.

ORZEL, K.

"What Trolling Really Is." P. 22, (GOSPODARKA RYBNA, Vol. 5, No. 9, Sept. 1953, Warszawa, Poland.)

SO: Monthly List of East European Accessions, (EAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ORZEL, K.

"Eel Culture in Rivers." p. 20, (GOSPODARKA RYBNA, Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ORZEL, K.

"Development of a Fry Culture Station in Olszowka." p. 21, (GOSPODARKA RYBNA, Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ORZEL, K.

"From the Polish Anglers Association in the Rzeszow District." p. 21, (GOSPODARKA RYBNA, Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ORZEL, K.

"Institute of Pond Biology of the Polish Academy of Sciences." p. 22,
(GOSPODARKA RYBNA., Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC,
Vol. 3, No. 12, Dec. 1954, Uncl.

ORZEL, K.

"First Faculty of Fishing Economy." p. 22, (GOSPODARKA RYBNA, Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ORZEL, K.

"Tasks of Establishments of the Fish Industry in 1954." p. 23, (GOSPODARKA RYBNA, Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ORZEL, M

Fire-proof finishes based on urea and phosphates. M. Orzel (*Proc. Inst. Wldk.*, 1953, No. 1, 14—18).—The method described for fire-proofing cellulose fabrics is based on the use of urea and diammonium phosphate (2 : 1 molar ratio; 1 : 1 by weight), the impregnating agent being stable to washing. Good results are obtained by applying 15—18% of the agent. Loss of tensile strength of the fabric and loss of fire-fastness during washing due to ion-exchange are avoided by incorporating into the impregnating solution a pre-condensate, and by washing the fabric in a non-alkaline wash-liquor and in softened water. When washing with soap in ordinary water, the fabric is rinsed in aq. NH_4Cl.

J. Text. Inst. (B.B.C.).

ORZEL, M

"Trends of progress in fins hing processes of the textile industry." p. 48
(Przemysl Wlokienniczy, Vol. 7, No. 2, Feb. 1953. Lodz)

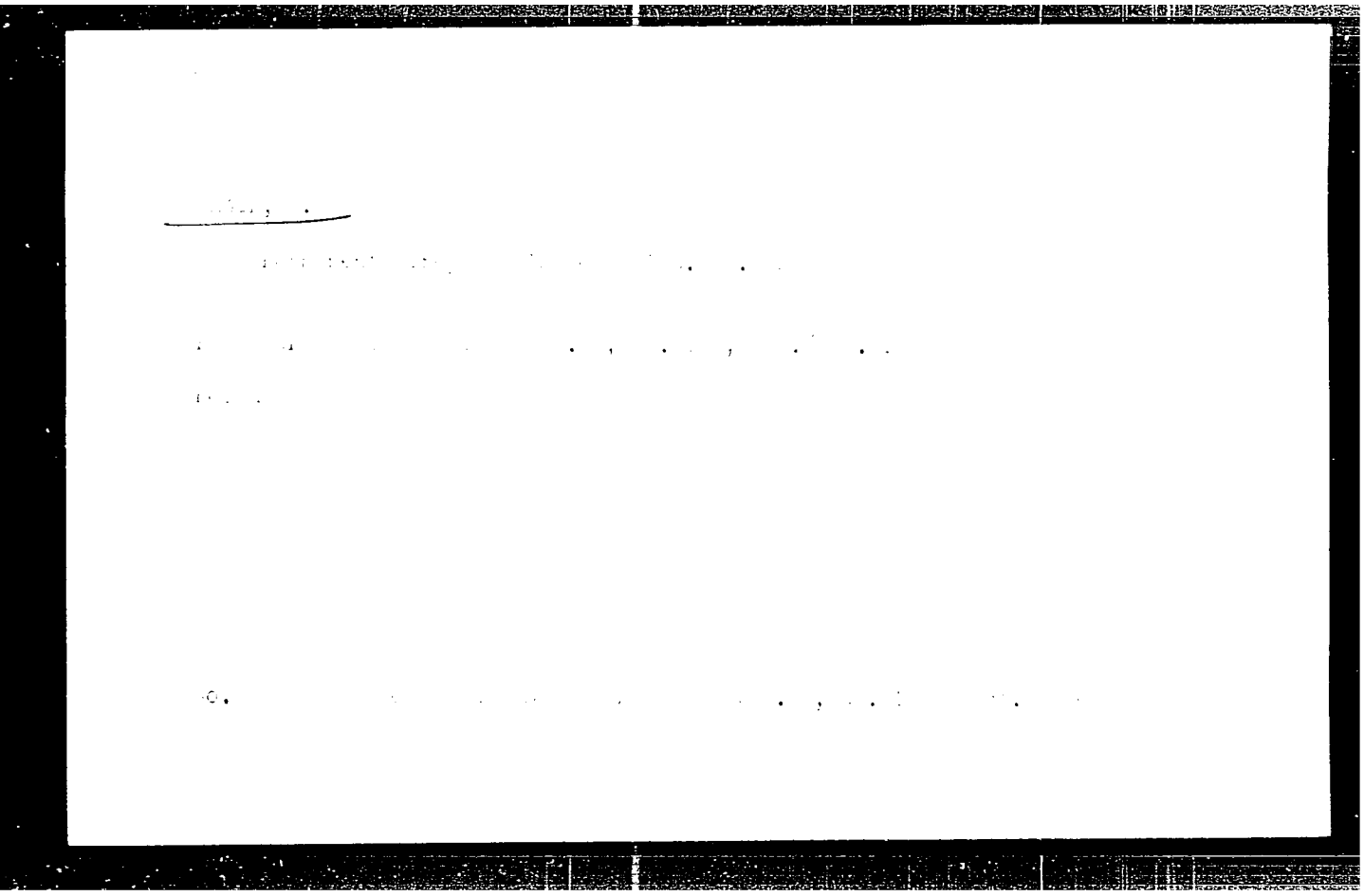
SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 6, June. 19:4, Uncl.

ORZEL, M

Orzel, M.; Rozental, S

"A poor edition of a good book." p. 272
From life of the Association of Engineers and Technicians of the Textile Industry in Lodz. p. 275 (Przemysl Wlokienniczy, Vol. 7, N . 11/12, Nov./Dec., 1953, Lodz)

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 6, June. 1954, Uncl.



ORZEŁ, W.

The impregnation of cotton fabrics against insects. Biuletyn Włok.

p. 13 (Przemysł Włókienniczy. Vol. 10, no. 7, July 1956. Łódź, Poland)

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

POLAND/Chemical Technology. Chemical Products and Their Application. Safety Engineering. Sanitary Engineering. H-6

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43802.

Author : Orzel Mieczyslaw.
Inst :
Title : Fire-Resistant Fabrics in Labor Protection.

Orig Pub: Ochrona pract, 1956, 10, No 10, 24-25.

Abstract: Manufacturing procedures and properties of fire-resistant cotton fabrics impregnated with a stable composition of ammonium phosphate, urea and thermostable resins. The advantageous properties of the fabrics include their flameless charring, slight increase (up to 15%) in weight on impregnation, permeability and low shrinkage (less than 3%) on laundering. Their disadvantages are decreased

Card : 1/2

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43802.

mechanical strength and the necessity of restoring the fire-resistant properties after laundering.

H

POLAND/Chemical Technology. Chemical Products and Their Application, Part 4. - Dyeing and Chemical Treatment of Textile Materials.

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 72718.

Author : M. Orzel.
Inst : "Inst. Wlokiennitcwa" .....
Title : Indelible and Insecticide Sizes Based on Cellulose Solutions.

Orig Pub: Przem. włókienniczy, 1957, 11, No 12, Biul. Inst. włókiennitcwa, 23-24.

Abstract: The process of making preparation (A) of viscous fiber wastes (W) for dressing cotton fabrics is described. 25 kg of W, 100 kg of urea, 210 kg of 50%-ual $Zn(ONa)_2$ solution and 665 kg of water are taken for preparing 1,000 kg of A. DDT emulsion

Card : 1/2

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LEGKUN, Jaroslaw A. (Lwow); ORZEL, M. [translator]

Photochemical changes in dyed and natural cellulose fabrics.
Przegl wlokien 16 no.12:640-648 D '62.

ORZEL-FICHTEL, Anna
ORZEL-FICHTEL, Anna

Two cases of hemispasms of the lower lip in children. Pediat. polska 29 no.6:625-626 June 54.

1. Z Miejskiego Szpitala Dziecicego we Wrocławiu. Ordynator: dr. med. J.Godlewski.
(LIPS, diseases,
hemispasms in child.)
(LIPS, diseases,
hemispasm in child. of lower lips)
(SPASM,
hemispasm of lower lips in child.)

ORZELSKI, Lucjan; SEMCZUK, Boleslaw

Laryngological procedures and pulmonary vital capacity.
Pol. tyg. lek. 19 no. 28:1091-1093 13-20 Jl'64

1. Z Kliniki Otolaryngologicznej Akademii Medycznej w Lublinie; kierownik: prof. dr. Benedykt Dylewski.

ORZEPOWSKI, S.

Measurement of electric and non-electric quantities in revolving machine parts by the use of wireless. p 88.

POMIARY, AUTOMATYKA, KONTROLA. (Naczelna Organizacja Techniczna) Warszaqa, Poland. Vol. 5, no. 3, Mar. 1959.

Monthly list of East European Accession (EEAL) LC, Vol. 8, no. 7, July 1959

Uncl.

P/034/60/000/003/002/0
A222/A02

AUTHOR: Orzepowski, Stanisław, Engineer

TITEL: The Use of Transistor Transmitters for Testing Physical Magnitudes in Revolving Parts of High-Speed Machines

PERIODICAL: Pomiary-Automatyka-Kontrola, 1960, No. 3, pp. 96-99

TEXT: The author describes transistor transmitters used for measuring the temperatures in high-speed electrical machines which he developed in tests carried out at Dział Badawczo-Doświadczalny (Research and Experimental Department) of Zakłady Wytwórcze Maszyn Elektrycznych (Electric Machinery Plant) in Wroclaw (For pertinent experience compiled on heavy low-speed electric machines reference is made to the author's article in Pomiary-Automatyka-Kontrola, 1959, No. 3, p 88). One of the prototypes of transistor transmitters used in the test is described: embedded in a resin block, the transmitter weighed 45 grams; the pack of batteries weighed 60 grams. The assembly was fastened to the rotor by means of a steel strip. A reduction in dimensions and weight to about one-third of the above data is expected due to improvements in design. The transmitter operated on a carrier frequency of 3-6 mc and a feed voltage of 6 v. The transmitters used were made by Zakład Elektroniki PAN (Department of Electronics, Polish Aca-

Card 1/3

P/034/60/000/003/002/005
A222/A026

The Use of Transistor Transmitters for Testing Physical Magnitudes in Revolving Parts of High-Speed Machines

demy of Sciences) in Warsaw. Test runs showed that continued rotation at 500 g (2,000 rpm at a rotor diameter of 20 cm) did not influence mechanical and electrical properties of the transmitter. Since this transmitter operated on the basis of frequency shift induced by the resistance variation of a gauge, the stability of oscillator frequency at constant resistance was a criterion in testing the efficiency. It has been established that the frequency is not influenced by mechanical overload, magnetic fields of the machine and the proximity of iron mass, while variations in ambient temperature and in feed voltage are influencing factors. As far as the influence of feed voltage is concerned, it has been established that 1) the slope of the battery discharge curve for elevated temperature is exactly the same as that for ambient temperature, and 2) suppression of the raised temperature results in voltage restored to a magnitude as if the battery were continuously discharged at ambient temperature. The variation in battery voltage due to temperature is negligible (1mv/1°C) The final dependence of relative generator frequency error is a function of the gauge resistor, under the assumption that the permissible voltage drop of the supply battery is 0.008 v/h per cell (4 cells). The influence of ambient temperature on generator frequency is such that the influence is rather high at low gauge re-

Card 2/3

P/034/60/000/003/002/0
A222/A029

The Use of Transistor Transmitters for Testing Physical Magnitudes in Revolving Parts of High-Speed Machines

sistances and reaches a nearly constant value at gauge resistancies higher than 40 kΩ . Further it has been found out that the magnitude of temperature influence on the transmitter does not vary within the limits of assumed feed voltage variation and, vice versa, a change in the ambient temperature does not influence the magnitude of transmitter frequency variation due to a change in feed voltage. Thus, both sources of error may be deemed independent and the errors summed algebraically. There are 10 figures

ASSOCIATION: Dział Badawczo-Doświadczalny, Dolnośląskie Zakłady Wytwórcze Maszyn Elektrycznych M-5 (Research and Experimental Department Lower Silesian Electric Machinery Plant M5) Wrocław.

Card 3/3

P/034/61/000/012/003/003
D265/D305

AUTHOR: Orzepowski, Stanisław, Engineer

TITLE: Application of transistorized radio-transmitters for measuring the change of physical parameters on rotating machines

PERIODICAL: Pomiary, Automatyka, Kontrola, no.12, 1961, 493-495

TEXT: The method of direct measurement of physical quantities in rotating machines by means of rotating radio-transmitters was developed in the Dział badawczo-doświadczalny zakładow M-5, Wroclaw, (Research and Development Department of M-5 Works in Worclaw). The measuring instruments consist of the transistorized radio-transmitter, encapsulated in ployester resin and strapped to the rotating armature of the machine under test, together with a battery and a small antenna. Either the amplitude or the frequency of the high-frequency oscillations generated in the transmitter are modulated by the voltage which is received by the receiver and after simplification can be read off directly on the screen of a cathode ray

Card 1/2