

BUTT, Lev Mikhaylovich; POLLYAK, Vera Vasil'yevna. Prinjimala uchastiye
POTOTSKAYA, G.V. BEREKHOVSKIKH, S.M., nauchnyy red.; GLADYSHEVA,
S.A., red.izd-va; OSENKO, L.M., tekhn.red.

[Technology of glass] Tekhnologiya stekla. Moskva, Gos.izd-vo
lit-ry po stroit., arkhit. i stroit.materialam, 1960. 417 p.
(MIRA 13:12)

(Glass manufacture)

VILNIS, K.K.; POLLYAK, V.V.; PAVLOV, V.S.

Specific amount of glass output as an indicator of the productivity
of tank furnaces. Stek.i ker. 17 no.3:9-14 Mr '60.

(MIRA 13:6)

(Glass furnaces) (Glass manufacture)

BEN', I.I.; POLLYAK, V.V., nauchnyy red.; KUZNETSOV, V.A., red.;
SHMAKOVA, T.M., tekhn. red.

[Industry's requirements as to the quality of mineral raw materials] Trebovaniia promyshlennosti k kachestvu mineral'nogo syr'ia; spravochnik dlia geologov. Moskva, Gosgeoltekhizdat. Vol.29. [Glass] Stekol'noe syr'e. 1962. 70 p.

(MIRA 16:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya.

(Glass manufacture)

POLLYAK, V.V.; SOSKOVA, V.D.; MAZUR, A.K.

Melting sheet glass at an increased temperature. Stek. i ker. 19
no.2:5-10 F '62. (MIRA 15:3)
(Glass furnaces)

BEREZHNOY, A.I.; BRODSKIY, Yu.A.; BRONSHTEYN, Z.I.; VEYNSBERG, K.L.;
GALDINA, N.M.; GLETMAN, B.A.; GINZBURG, D.B.; GUTOP, V.G.;
GUREVICH, L.R.; DAUVAL'TER, A.N.; YEGOROVA, L.S.; KOTLYAK,
A.Ye.; KUZYAK, V.A.; MAKAROV, A.V.; POLYAK, V.V.; POPOVA,
E.M.; PRYANISHNIKOV, V.P.; Sentyurin, G.G.; SIL'VESTROVICH,
S.I., kand. tekhn. nauk, dots.; SOLOMIN, N.V.; TEMKIN, B.S.;
TYKACHINSKIY, I.D.; SHIGAYEVA, V.F.; SHLAIN, I.B.; EL'KIND,
G.A. [deceased]; KITAYGORODSKIY, I.I., zasl. deyatel' nauki i
tekhniki RSFSR, doktor tekhn. nauk, prof., red.; GOMOZOVA,
N.A., red.izd-va; KOMAROVSKAYA, L.A., tekhn. red.

[Handbook on glass manufacture] Spravochnik po proizvodstvu
stekla. [By] A.I.Berezhnoi i dr. Pod red. I.I.Kitaigorodskogo
i S.I.Sil'vestrovicha. Moskva, Gosstroizdat. Vol.2. 1963.
815 p.

(MIRA 16:12)

(Glass manufacture)

FOLLYAK, V.V., kand. tekhn. nauk; MIKHAYLOVA-BOGDANSKAYA, M.A., Inzh.

Effect of the bubbling of the glass batch by the injection
of air on its chemical homogeneity. Stek. i ker. 21 no.10:14-17
0 '64. (MIRA 18:11)

L. Gosudarstvennyy nauchno-issledovatel'skiy institut stekla.

L 3861-66 EWT(d)/EWT(l)/EWP(v)/EWP(c)/T/EWP(k)/EWP(l)/EWA(h)/ETC(m) Wh-
 UR/0108/65/020/007/0067/0073
 621.3.019

AUTHOR: Pollyak, Yu. G. (Active member)

TITLE: Methods of comparative tests of accuracy and reliability of equipment

SOURCE: Radiotekhnika, v. 20, no. 7, 1965, 67-73

TOPIC TAGS: equipment reliability

29 B

ABSTRACT: A procedure and formulas are developed for processing the results of simultaneous tests of competing pieces of equipment when the correlation factor between their characteristics is positive. The method is based on this unbiased estimate of the difference of average values $a' - a''$:

$$\Delta \bar{x} = \frac{1}{n} \sum_{i=1}^n x_i' - \frac{1}{n} \sum_{i=1}^n x_i'' \approx a' - a'' \quad (1)$$

The dispersion of the error of the above estimate is:

$$D[\Delta \bar{x}] = \frac{1}{n} [D' + D'' - 2K] = \frac{1}{n} [D' + D'' - 2R\sqrt{D'D''}] \quad (2)$$

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Card 2/2

L 3861-66

ACCESSION NR: AP5018264

If the tests are staged in such a way that the correlation factor R between the quantities being compared is positive, then the mean-square error will be lower than that in the case of independent (nonsimultaneous) tests. Hence: (1) The error should be estimated from the above formula, rather than from "classical" formulas; as the theoretical value of R is, as a rule, unknown, the experimental data should be so processed that an empirical value of R can be calculated; (2) A more accurate comparison of the average values requires a high positive R (hints on how to achieve this in practice are given). The recommended procedure based on the method of sequential analysis is simpler than the "classical" statistical method because it takes advantage of existing correlations. Orig. art. has: 1 figure and 28 formulas.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 10Jul64

ENCL: 00

SUB CODE: EC, IF

NO REF SOV: 009

OTHER: 002

Card 2/2

SOV/108-13-2-7/15

AUTHOR: Pollyak, Yu. G.

TITLE: Letter to the Editor (Pis'mo v redaktsiyu)

PERIODICAL: Radiotekhnika, 1958, Vol. 13, Nr 2, pp. 50 - 50 (USSR)
Received: April 25, 1958

ABSTRACT: In the periodical Radiotekhnika, 1956, Nr 10, the article by R. A. Kazaryan "On the Comparison of Statistical and Non-statistical Prediction" was published. The fundamental problem dealt with in this paper was the demonstration of the identity of the results obtained by different methods of projecting for the best linear filter in the extrapolation of a steady random process. (The best filter in the sense of the average square deviation). The results obtained by the author are of general character. If the averaging of the square of a random steady function shows the same result according to the total realizations and according to time (ergodic theorem), a filter best for a realization in the mean square will be the same also for the total number of realizations, and vice versa. Therefore the problem

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Letter to the Editor

SOV/108-13-2-7/15-00/00

raised in this article can be answered starting from the theses of the theory of **random** processes, without the necessity of dealing with the solution of special cases. There is 1 reference, which is Soviet.

Card 2/2

42076

S/108/62/017/011/007/007
D413/D308

9.3280

AUTHOR: Pollyak, Yu.G., Member of the Society (see Association)

TITLE: The extrapolation (prediction) of a function with limited spectrum from its discrete values

PERIODICAL: Radiotekhnika, v. 17, no. 11, 1962, 57-64

TEXT: Much use is made in pulse circuit design work of Kotel'nikov's theorem by which any time function with limited spectrum can be reconstructed from a set of its discrete values: but the normal form of this has been criticized for paradox and also for practical inconvenience, since the use of 'future' values implies delay in reconstitution of a signal, and an infinite series of terms cannot be practically realized. Another formula has been proposed (J.L. Yen, Transactions IRE on circuit theory, v. CT-5, no. 4, 1956), but this lacks generality and is still cumbersome. The author has therefore developed a new form of prediction formula on lines suggested by J.A. Ville. This is derived by expressing the

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The extrapolation (prediction) ...

S/108/62/017/011/007/007
D413/D308

future value (to be predicted) in terms of its Fourier transform and approximating the spectral density of this as a linear combination of a finite number of spectral densities relating to 'delayed' signals $f(t - kT)$, obtained as a partial sum of a Taylor expansion about a suitable point in the complex plane. This technique can easily be generalized to give approximate formulas for the result of any linear operation on the function such as differentiation, integration, interpolation etc. A condition is that the interval T between the discrete observations must be less than $1/4f_0$, where f_0 is the upper bound of the frequency spectrum. Taking as example a stationary random process with spectral density constant up to $\omega = \pm\omega_0$, the formula is obtained for extrapolating one period ahead, and curves are drawn of the variance of the extrapolation error taking various numbers of terms into account. The method is recommended for practical use because the formulas are convenient for numerical work and computer programming, and also because they have simple criteria of applicability calling for no knowledge of the function other than its limit frequency. The author thanks Doctor of Technical Sciences I.T. Turbovich for his comments. There
Card 2/5

The extrapolation (prediction) ...

S/108/62/017/011/007/007
D413/D308

are 3 figures.

ASSOCIATION:

Nauchno-tekhnicheskoye obshchestvo radiotekhniki i
elektrosvyazi im. A.S. Popova (Scientific and Tech-
nical Society of Radio Engineering and Electrical
Communications im. A.S. Popov) [Abstracter's note:
Name of Association taken from first page of jour-
nal]

X

SUBMITTED:

February 2, 1962 (initially)
June 11, 1962 (after revision)

Card 3/3

S/106/63/000/004/001/008
A055/A126AUTHOR: Pollyak, Yu.G.

TITLE: Errors in the prediction of reliability, conditioned by the statistical interdependence of failures of elements

PERIODICAL: 'Elektrosvyaz', no. 4, 1963, 3 - 9

TEXT: The usual formulae for the calculation of reliability are based on the hypothesis that the failures of various elements are statistically interdependent. The present article is an attempt to find out how the interdependence of these failures affects the precision in the calculation of the reliability of a system of elements by the usual methods. Considering first two series- or parallel-connected elements A_1 and A_2 , whose failures are statistically interdependent, and starting (for the case of series connection) from the well-known formulae:

$$P_{\text{real}} = P(B_1 B_2) \quad (1), \quad \text{and} \quad P_{\text{calculated}} = P(B_1) P(B_2), \quad (2)$$

where B_1 and B_2 are random events representing a failureless operation of A_1 and A_2 , respectively, during a given time t , the author shows that, with a positive

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Errors in the prediction of reliability,

S/106/63/000/004/001/008
A055/A126

coefficient of correlation between the failures of elements, the calculated value of the reliability of series-connected elements is inferior to its real value, whereas the calculated value of the reliability of parallel-connected elements is superior to its real value. This conclusion holds for any number of elements. The author examines next the statistical interdependence of failures, conditioned by random variations of the operating conditions of the system (temperature, pressure, load, etc.), and finds that the correlation between the failures of elements is practically always positive. An example of the calculation of the error in the prediction of the reliability of a system of n similar series-connected elements is given at the end of the article. There are 4 figures.

SUBMITTED: July 11, 1962

Card 2/2

ACC NR: AP7001535

SOURCE CODE: UR/0108/66/021/012/0041/0049

AUTHOR: Pollyak, Yu. G. (Active member of society)

ORG: Scientific and Technical Society of Radio Engineering and Electro-communication im. A. S. Popov (Nauchno-tehnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Smoothing of noise and random amplitude-limited measurement errors

SOURCE: Radiotekhnika, v. 21, no. 12, 1966, 41-49

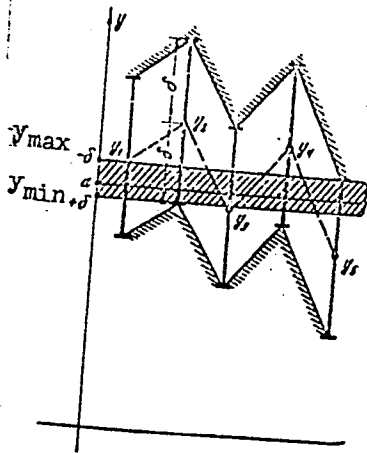
TOPIC TAGS: signal noise separation, electric filter, pulse modulation

ABSTRACT: A nonlinear smoothing filter "more efficient than the optimal linear" filter is suggested. Nonlinear filtration methods are sought which essentially use the fact that the noise to be smoothed is amplitude-limited; statistical characteristics of noise are assumed to be unknown. Quantization noise, PCM-malfunction errors, or any other amplitude-limited random errors are dealt with.

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UDC: 621.391.172

ACC NR: AP7001535



A series of measurements of y_i ($i = 1, 2 \dots 5$) of a signal "a" is shown in the figure. The true value of "a" lies in the "corridor" bound by maximum noise values $\pm \delta$. The signal "a" is evaluated as a half-sum of confidence limits: $a = 1/2 (y_{max} + y_{min})$. This formula can be materialized as a filter programed on a digital computer. Errors associated with the above filter are evaluated. The method is efficient if the number of measurements is sufficiently great. The filter is insensitive to variation of the shape of noise-probability-distribution curve and may prove particularly suitable for smoothing narrow-band slow-varying noise. "The author wishes to thank L. N. Bol'shev for discussing this project." Orig. art. has: 5 figures and 20 formulas.

SUB CODE: 09 / SUBM DATE: 23Mar64 / ORIG REF: 010 / OTH REF: 002

Card 2/2

34447
S/185/61/006/006/030/030
D299/D304

26.2311
AUTHOR:

Pollyul', Yu.P.

TITLE:

Relation between spectral reproducibility and the process of inflow of matter into an electric-arc plasma

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961,
884 - 887

TEXT: The experimental error, (in the present case-spectral reproducibility), obtained by increasing the number of average results of analysis, is due to fluctuations in the processes of inflow and of excitation of matter. In the present case, only the relation between the inflow of matter and spectral reproducibility is considered. The inflow of matter into a discharge plasma depends on the temperature T of the discharge, on the time τ of glow of the arc, the partial pressure p , the discharge parameters (in particular the size h of the gap), etc. Hence the inflow of matter is expressed as a function of many variables:

$$N = f(T, \tau, p, h, \dots) \quad (1) \quad X$$

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Relation between spectral reproducibility... S/185/61/006/006/030/030
D299/D304

where N is the concentration of atoms of the analyzed element in the plasma. The mean concentration of the atoms is related to the intensity of the spectral lines. Investigations carried out at the Optics Department of Dnipropetrovsk State University, showed that the spectral reproducibility $\delta \Delta S$ depends on τ : $\delta \Delta S \sim 1/\sqrt{\tau}$. By changing the conditions of the analysis, the spectral reproducibility can be improved. An investigation of iron alloys (with nickel, cobalt, manganese, molybdenum, titanium, etc.), showed that the intensity of the spectral lines, which depends on the concentration N , is a function of the vapor pressure of all the components of the plasma. A figure shows the curves of spectral reproducibility as a function of the vapor pressure of "third" elements. A comparison of these curves with the previously obtained dependence of inflow of matter on the vapor pressure of the elements in the discharge cloud, showed that the changes in spectral reproducibility are the result of changes in the inflow of matter into the discharge cloud. The conclusion is reached that the spectral reproducibility is the derivative of the inflow function. Further, a relationship was established between spectral reproducibility (and intensity of spec-

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POLLYUL', Yu.P.

Role of diffusion in the process of the passage of a substance
into a discharge cloud. Sbor. trud. TSNIICHM no.24:118-127
'62. (MIRA 15:6)

(Electric discharges) (Diffusion)

POLLYUL', Yu.P.

Role of diffusion in processes involving the penetration of substances into a discharge cloud. Opt.1 spektr. 13 no.2:270-272
Ag '62. (MIRA 15:11)
(Electric arc) (Diffusion)

POILYUL', Yu.P.; FEDOROVA, L.M.

Exact method for mounting electrodes in spectral analysis. Zav.lab.
24 no.4:464 '58. (MIRA 11:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii.
(Spectrum analysis) (Electrodes)

AUTHORS: Pollyul', Yu.P., Fedorova, L.M.

32-24-4-39/67

TITLE: ~~A Precise Method of Electrode Installation in Spectral Analysis~~
A Precise Method of Electrode Installation in Spectral Analysis
(Tochnyy metod ustanovki elektrodov pri spektral'nom analize)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 464-464 (USSR)

ABSTRACT: The supporting electrode is installed on the optical axis after which the sample is brought into contact with it, which is indicated by the flashing-up of the signal lamp; it is then led down and the position may be read off from the graduated arc. In order to eliminate the influence exercised by clay on the accuracy of the order a "not-fastened electrode" is used. Insertion of the sample is described in which reading off of the discharge distance from the graduated arc begins with the breaking of the contact of the signal lamp. A round disk made of plexiglass with a scale divided into 72 parts corresponding to about 0.01 mm of the change of position of the support of the sample serves as a graduated arc. Data concerning dimensions are given. From the schematical drawing showing the arrangement it may be seen that the electrodes are connected in parallel with the switch of the signal lamp, and that, corresponding to the two existing switches,

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A Precise Method of Electrode Installation in
Spectral Analysis

32-24-4-39/67

a condenser battery is switched on and off respectively. The scheme described may be used analogously for the generators IG-2, DG -1, PS-39, but in this case two-pole throw-over switches must be used. There is 1 figure.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut Chernoy metallurgii (Central Scientific Research Institute for Ferrous Metallurgy)

1. Spectrum analyzers--Equipment
2. Spectrum analyzers---Performance
3. Electrodes--Installation

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55310

S/051/62/013/002/010/014
E202/E492

AUTHOR: Pollyul', Yu.P.

TITLE: The role of diffusion in processes involving the entry of a substance into the discharge clouds

PERIODICAL: Optika i spektroskopiya, v.13, no.2, 1962, 270-272

TEXT: Using a medium dispersive power spectrometer and an AC arc, the author studied the changes in spectral line intensities in relation to the evaporative processes and processes leading to the entry of the electrode constituents into the arc discharge plasma, using iron-base electrode. To avoid working at saturation, 50% at. Fe and 50% at. additives were used. Using in turn Mo, Nb, Ti, Co, Ni, Cu, Cr, Si, Mn and Al as additives, it was found that there is a definite relation between the intensity of the iron (2404.43 Å) line and the vapour pressure of the additives. Tests were also carried out with iron electrodes with small traces of Si, Mn, Cr and Ni (0.4%). In the latter case the above dependence was also shown to be present, although in a different scale. The changes in intensities of the principal component and the small additives were ascribed to

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POLLYUL', Yu.P. [Polliul', IU.P.]

Relation between spectral reproducibility and the inflow of matter into the plasma of an electric discharge. Ukr.fiz.zhur. 6 no.6:883-888 N-D '61. (MIRA 16'5)

1. Dnepropetrovskiy gosudarstvennyy universitet im. 300-letiya vossoyedineniya Ukrainy s Rossiyey.
(Spectrum analysis) (Electric discharges through gases)

POLLYUL, Yu. P.

USSR/Chemistry -- Spectral analysis

Card 1/1 Pub. 43 - 61/97

Authors : Buyanov, N. V.; Pollyul', Yu. P.; and Tsvetkova, N. N.

Title : The mutual effect of the material of the upper and lower electrodes during spectral analysis of ferrous metals

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, page 280, Mar-Apr 1954

Abstract : The mutual effect of electrode materials (Fe, Cu, Ni, Al and C - upper electrodes - and binary and tertiary alloys and steel - lower electrodes) during the spectral analysis of ferrous metals was investigated. The findings of the investigation are listed.

Institution : Central Scientific Research Institute of Ferrous Metallurgy

Submitted :

Polyak, V. V.

POLYAK, V. V.

Rms

Matts

1170: The optimum composition of window glass
 of the literature suggests that the recommendation made by the Russian Glass Institute
 that window-glass for vertical drawing should contain 4% MgO and 7% CaO omitted.
 to take into account the conditions of glass cooling. According to the authors, glasses
 with better working properties (higher viscosity and surface tension) contain 6-6.5%
 CaO and 4.5% MgO. (4 figs., 1 table.)

I. G. GOL'DENBERG and V. V. 2

pm mk

POLLYAK, V.V.

Best temperature conditions for glass melting using a batch containing sodium sulfate. Stek. i ker. 15 no.6 Je '58. (MIRA 11:6)

1. Institut stekla.
(Glass manufacture) (Sodium sulfates)

AAMISEPP, I.; EICHENBAUM, E.; HALLER, E.; KAARLI, K.; KIIK, H.;
KIVI, V.; KOTKAS, H.; KORJUS, H.; LEIVATEGIJA, L.; LIIV, J.;
LÄNTS, L.; MÄLKSCO, A.; FEDAJA, V.; POLNA, H.; RANDALU, I.;
RUUGE, J.; SEKSEL, H.; TOOMRE, R.; TUPITS, H.; TUUL, S.;
TÖNISSON, H.; TÄÄGER, A.; VIIRAND, M.; VAHENÖMM, K.; ARAK, A.,
red.

[Plant breeding] Taimekasvatus. Tallinn, Eesti Raamat, 1964.
813 p. [In Estonian] (MIRA 18:1)

FOLNA, Hugo, kand. tehnik. nauk; REHUL, A., red.

[Reduction of labor expenditure and fodder losses in silos] Töökulu ja söödakadude vähendamine silohoidlates.
Tallinn, Eesti Raamat, 1965. 108 p. [In Estonian]
(MIRA 18:1)

POLNA, Izabela; LESZCZYNSKA, Halina

Effect of the glucose content in medium on the development of tissue culture. Med. dosw. mikrobiol. 14 no.4:365-377 '62.

1. Z Zakladu Wirusologii PZH w Warszawie.
(TISSUE CULTURE) (GLUCOSE)

POLNAR, E.

Research institutes of the Ministry of Light Industry take part in socialist competition. p.67. (Textil, Praha, Vol. 9, no. 3, Mar. 1954)

SO: Monthly list of East European Accessions (EEAL), LC Vol 4, no. 6, June 1955, Uncl

POJNAR, E.

Research institutes of light industry take part in competition, p. 74,
SKLAR A KERAMIK (Ministerstvo lehkého průmyslu) Praha, Vol. 4, No. 3,
Mar. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 5, No. 12, December 1955

FOLMAR, E.

"Some Shortcomings in the Realization of Completed Research Work." p. 400
"Technological Councils, An Instrument for Controlling the Quality of Solutions
to Research Problems." p. 404 (Za Socialistickou Vedu A Techniku, Vol. 3, no. 9,
Sept. 1953, Praha)

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

Electric hard soldering of contact joints. Priborostroenie
no.4:15-16 Ap '65. (MIRA 18:5)

POLNAREV, A.M.

Automatic welding of storage spheres. Avtom. svar. 16 no.2:68-69
F '63. (MIRA 16:4)

1. Smolenskiy filial "Giproribor".
(Gas holders—Welding)

S/125/63/000/002/004/010
A006/A101

AUTHOR: Polnarev, A. M.

TITLE: Automatic welding of cylinders

PERIODICAL: Avtomaticheskaya svarka, no. 2, 1963, 68 - 69

TEXT: In the welding of cylinder butts the main difficulty is the absence of backing plates, the use of which is not permitted. A method was developed for the automatic welding of cylinders for the purpose of raising the labor efficiency and of improving the quality of welding. Automatic submerged-arc welding was employed to reduce the consumption of scarce argon. A combined method was developed, namely, mechanized helium-arc welding of the joint root without a filler wire, and subsequent automatic submerged arc welding. The quality of assembling the parts was improved by the beveling of edges as shown in Figure 1. The accelerated and accurate fixing of the part in the automatic machine was assured by using a machine designed by engineer A. A. Shkodkin. The machine consists of the following assemblies: electric drive for rotating the part which makes it possible to regulate the welding speed within a wide range; a clamping

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Automatic welding of cylinders

S/125/63/000/002/004/010
A006/A101

device composed of two cup-shaped discs to adjust the part to be welded; a welded body for the fastening of two immovable supports, and a device for centering the part. On one of the supports the rotating drive and on the other one a movable screw-type clamp are mounted. A trolley with welding torches АИС -1000-2 (АДС-1000-2) and АГП -2 (АГП-2) is mounted on guides. The conditions of helium-arc welding the seam roots are: 180 - 190 amps current; 32 - 35 m/hour welding speed; 3 mm electrode throat; 2 - 3 mm arc length; 3 mm tungsten electrode diameter; d-c of direct polarity; electrode inclination angle 30°; electrode dislocation from the circumferential seam vertex towards the side, opposite to the cylinder rotation, is 40 to 50 mm. After welding-up the root, the trolley is displaced along the guides and the torch is adjusted for submerged-arc welding under the following conditions: current intensity 290 - 315 amps; voltage - 24 to 28 v; welding speed: 63 - 71 m/hour; diameter of electrode wire - 3 mm; electrode throat 20 - 30 mm; d-c of direct polarity; electrode inclination 30°; electrode shift: 25 mm. АН -348 А (АН-348А) flux and СВ-18 XMA (Сv-18XhMA) wire are used. The weld metal shows high mechanical properties. Efficiency was increased to up to 30 cylinders per shift. Technicians V. T. Moskalev and L. G. Karpov participated in the study. There are 2 figures.

Card 2/3

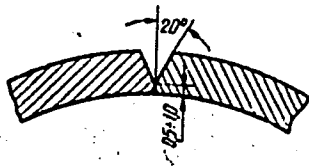
Automatic welding of cylinders

S/125/63/000/002/004/010
A006/A101

ASSOCIATION: Smolenskiy filial "Giproprigor" (Smolensk "Giproprigor" Branch)

SUBMITTED: July 25, 1962

Figure 1. Beveling of edges



Card 3/3

Country : Bulgaria T
Category : Human and Animal Physiology, The Nervous System
Nos. Jour. : Ref Zhur Biol, No. 2, 1959, No. 8506
Author : Voshev, N; Polnarev, B.; Nikolova, A.; Kavrykova, K.
Institut. : ---
Title : The Effect of Rimifon (Isonicotinic Acid Hydra-
zide) on Conditioned Reflexes.
Orig. Pub. : Izv. Otd. biol. i med. nauki. Bylg. AN Ser.
eksperim. biol. i med., 1957, No. 1, 57--66
Abstract : Rimifon in therapeutic doses exerts an
effect upon the conditioned reflexes of dogs.
Both an excitatory effect and an inhibitory
one with phasic phenomena were observed, depend-
ing upon the type of nervous system.--A.M.R.

Card: 1/1

POLNAREVA, M.V.

Work of drugstore No.2 in Kostroma. Apt. delo 9 no.3:71-74 My-Je
'60. (MIRA 14:3)

1. Upravlyayushchaya Kostromskim aptechnym upravleniyem.
(KOSTROMA--DRUGSTORES)

POLNER, Antal

Would it be worth while? Erdo 12 no.3:97-104 Mr '63.

1. Erdomuvelési csoportvezető, Csongradmegyei Állami
Erdogazdaság, Szeged.

POIHER, Antal

Lumber-producing capacity of the noble poplar forests belonging to the Csongrad County Forestry. Erdo 12 no.12: 560-564 D'63.

1. Csongrad megyei Allami Erdogazdasag erdomuvelesi csoport-vevezetoje, Szeged.

POROSHINA, Yu.A.; POL'NER, A.A.; LUKMANOVA, F.F.

Specific diagnosis and clinical aspects of pollinosis (hay fever).
Sov. med. 27 no.3:42-48 Mr '64. (MIRA 17:11)

1. Nauchno-issledovatel'skaya allergologicheskaya laboratoriya (zav.-
chlen-korrespondent AMN SSSR prof. A.D. Ado) AMN SSSR, Moskva.

ADO, A.D.; ISHIMOVA, L.M.; POL'NER, A.A.

Allergic changes in smooth muscle organs. Vestn. Akad. med.
nauk SSSR 18 no.4:8-20 '63 (MIRA 17:4)

1. Kafedra patologicheskoy fiziologii II Moskovskogo meditsin-
skogo instituta imeni N.I. Pirogova i nauchno-issledovatel'-
skaya allergologicheskaya laboratoriya AMN SSSR.

POL'NER, A. A.

ADO, A.D. (Moskva); POL'NER, A.A. (Moskva); KHAKBERDYEV, M.M. (Moskva)

Renal excretion of large molecules. Usp. sovr. biol. 43 no.1:70-81
Ja-7 '57 (MLBA 10:5)
(KIDNEYS) (MACROMOLECULAR COMPOUNDS)

POL'NER, A.A.

Renal excretion of antigens in dogs with normal and modified immunological reactivity [with summary in English]. *Biul. eksp. biol. i med.* 45 no.3:85-91 Mr'58 (MIRA 11:5)

1. Iz laboratorii patologicheskoy fiziologii (zav. - chlen-korrespondent AMN SSSR A.D. Ado) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova (dir. - prof. O.V. Keribikov) Predstavlena deystvitel'nyy chlenom AMN SSSR L.A. Zil'berom.

(SHIGELLA DYSENTERIAE,

antigens, renal excretion in normal & modified immunol. reactivity (Rus))

(KIDNEYS, physiology,

dysenterial antigen elimination in normal & modified immunol. reactivity (Rus))

POL'NER, A. A., Candidate of Med Sci (diss) -- "On the isolation of dysentery antigen by the kidneys". Moscow, 1959. 12 pp (Min Health RSFSR, Second Moscow State Med Inst im N. I. Pirogov), 250 copies (KL, No 21, 1959, 120)

POLNER, A.A.

Modern methods for the specific diagnosis and treatment of allergic diseases. Sov. med. 25 no.3:71-79 Mr '61. (MIRA 14:30)

1. Is kafedry patologicheskoy fiziologii (zav. - chlen-korrespondent AMN SSSR prof. A.D.Ado) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

(ALLERGY)

ADO, A.D., prof., red.; POL'NER, A.A., red.; USPENSKIY, V.I.,
red.; MIRONOVA, A.M., tekhn. red.

[Contemporary practical allergology] Sovremennaiia prak-
ticheskaia allergologiya. Pod red. A.D.Ado i A.A.Pol'nera.
Moskva, Medgiz, 1963. 398 p. (MIRA 17:3)

1. Akademiya meditsinskikh nauk SSSR, Moscow. 2. Chlen-
korrespondent AMN SSSR (for Ado).

ADO, A. D.; ISIMOVA, L. M.; POLNER, A. A.

Allergic alteration of smooth muscle organs. Cas. lek. cesk. 101
no.24/25:740-747 22 Je '62.

1. Ustav pro patologickou fyziologii II medicinskeho ustavu v Moskve,
prednosta akademik A. D. Ado.

(ALLERGY experimental) (MUSCLES physiol)
(POTASSIUM metab)

POLNER, B.I.

More about limiting the number of types of reinforced concrete elements. Transp. stroi. 12 no.12:58 D '62. (MIRA 16:1)

1. Nachal'nik tekhnicheskogo otdela tresta Sevkavtransstroy.
(Precast concrete)

POL'NER, B.I.

Construction elements for railroad electrification should be manufactured in the plants of the Main Administration for the Manufacturing Establishments of the Ministry of Construction of the U.S.S.R. Transp.stroi. 11 no.3:60 Mr '61. (MIRA 14:3)

1. Nachal'nik tekhnicheskogo otdela tresta Sevkavtransstroy.
(Railroads--Electrification)

EXCERPTA MEDICA Sec 4 Vol 12/1 Med. Micro: Jan 59

129. RENAL EXCRETION OF DYSENTERY ANTIGENS IN DOGS WITH
CHANGED AND UNCHANGED IMMUNOLOGICAL REACTIVITY (Russian
text) - Poiner A. A. N. I. Pirogov II Med. Inst., Moscow - BYULL.
EKSPER. BIOL. MED. 1958, 45/3 (85-91) Graphs 2 Tables 2
Dysentery antigens are excreted by the kidneys following i. v. injection in dogs.
Excretion of antigens is connected with a transitional proteinuria.

1. Introduction

The purpose of this report is to provide a comprehensive overview of the current state of the art in the field of artificial intelligence, with a particular emphasis on the development of expert systems.

The report is organized as follows: Chapter 1 provides an introduction to the field of artificial intelligence. Chapter 2 discusses the development of expert systems. Chapter 3 discusses the application of expert systems in various domains. Chapter 4 discusses the future of artificial intelligence.

POLNER, L.S.

Economic conference at the Ust' Kamenogorsk Lead and Zinc Combine.
TSvet. met. 36 no.11:91-92 N '63. (MIRA 17:1)

FOJNER, R.; LEINER, K.

"Making use of the chemical effect of foodstuffs in the alimentation of sportsmen and miners. p. 242. (NEMESSELENGY. Vol. 34, No. 9. Sept. 1953 Budapest Hungary)

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

POLNER, L.S.; CHERNOLOVSKIY, B.A.

Economic conference at the Ust'-Kamenogorsk Lead-Zinc Combine.
TSvet.met. 38 no.3:93-94 Mr '65.

(MIRA 18:6)

POLNEV, L.S.

Nonferrous metallurgy in the Rudnyy Altai. TSvet. met. 35
no.5:7-10 My '62. (MIRA 16:5)
(Altai Mountains--Nonferrous metals--Metallurgy).

POLNIAKOVA, F. YA.

H. I. FELDBERIN, Stanki i Instrumenty, 1947, Apr. pp. 24-26

POŁNIAKOWSKI, Z.

2
1-F/W

7170:
Polniakowski, Z. Polynomial Hausdorff transformations and Mercerian theorems. Ann. Polon. Math. 5 (1958), 1-24.

The author obtains conditions for regularity and Mercerian theorems for certain special classes of Hausdorff transformations. His work is related to that of H. R. Pitt [Proc. Cambridge Philos. Soc. 34 (1938), 510-520], but is not as general, and the methods used are accordingly much more elementary. The author first considers the Hausdorff transformation

$$s_p \rightarrow t_p = \sum_{n=0}^p (-1)^n \binom{p}{n} \mu_n \Delta^n s_0,$$

with $\mu_n = W_1(n)/W(n)$. Here W is a polynomial of degree

k and W_1 a polynomial of degree $\leq k$, $W(0) = W_1(0) = 1$. He shows that this transformation is regular if and only if all zeros of W have negative real part. He next proves the following Mercerian theorem for the case $W_1 = 1$: in order that for every sequence $\{s_n\}$ the hypothesis $\alpha s_n + (1-\alpha)t_n \rightarrow s$ (with $\alpha \neq 0$) implies $s_n \rightarrow s$ it is necessary and sufficient that all zeros of $W - 1 + 1/\alpha$ have negative real part. More general Mercerian theorems are proved also, and analogous results are obtained for the related transformations

$$t(x) = \sum_{n=0}^{\infty} \mu_n \binom{x}{n} \Delta^n f(0), \quad t(x) = \sum_{n=0}^{\infty} \mu_n (x^n/n!) f^{(n)}(0).$$

J. Korevaar (Madison, Wis.)

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POLNIAKOWSKI, Z. (Poznan)

Asymptotic properties of solutions of some integral equations and second order differential equations. Annales Pol Math 16 no.2:169-183 '65.

1. Institute of Mathematics of the Polish Academy of Sciences.
Submitted January 7, 1963.

POL'NIKOV, A.I.

Erecting signal towers with a rhumb grid. Geod. i kart. no.9:
39-40 S '63. (MIRA 16:10)

POLNIKOV, V.V.

Mineralogical characteristics of the silt fraction of Sierozems in the piedmont plain of the Trans-Ili Alatau. Izv. AN Kazakh. SSR Ser. biol. nauk no.2:38-44 '63. (MIRA 17:10)

POLNIKOV, V.V. [deceased]

Micromorphological structure of Sierozems. Izv. Akad. Nauk Kazakh. SSR.
Ser. biol. nauk 2 no.1:21-29 Ja-F '64. (MIRA 17:6)

L 48824-65 EWT(1)/EEC(b)-2/EWA(h) Feb/PL-4
ACCESSION NR: AP5007537 S/0292/65/000/003/0047/0049

AUTHOR: Kravtsov, S. F. (Candidate of technical sciences); Polnitskiy, K. A.
(Candidate of technical sciences)

TITLE: Thermal design of resistors intended for short-time operation

SOURCE: Elektrotehnika, no. 3, 1965, 47-49

TOPIC TAGS: resistor, thermal design

ABSTRACT: A method is set forth of the thermal design of resistors which permits taking into account the effect of both the temperature and the time-period required for attaining a specified temperature rise upon the heat-exchange factor. This formula is proposed for thermal calculations: $k = 1 - \eta(mt, \tau)$, where

$k = \frac{c \tau^2}{q l} = \frac{c \tau^2 f^2 \sigma}{l^2 t}$; $m = \frac{a \tau}{c \tau l} = \frac{l^2 c \tau}{c \tau^2 f^2 \sigma}$, $c \tau$ is the volume specific heat in w-sec/cm³ C;
 σ is the conductivity in m/ohm-mm²; f is the conductor cross-section in mm².

Card 1/2

L 4824-65

ACCESSION NR: AP5007537

The stationary heat-exchange factor differs considerably from that existing during the heating-up process; the latter increases with the temperature and decreases with the time required for reaching this temperature. The above formula agrees within 5% with the results experimentally obtained for constantan, cast-iron, and "Inchral" (ferrochromium-aluminum alloy) resistors of various forms. Orig. art. has: 3 figures and 18 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EE

NO REF SOV: 005

OTHER: 000

Card 2/2

KRAVTSOV, S.F., kand.tekhn.nauk; POLNITSKIY, K.A., kand.tekhn.nauk

Thermal Calculation of resistors operating in a short-term mode.
Elektrotehnika 36 no.3:47-49 Mr '65. (MIRA 1866)

POINENEN, V.A., Sand Tech Co--(dis) "Analysis of chemical
losses in a ~~submarine~~ ^{high speed} engine." Mur'kov, 1957. 10 pp. 114 pp. (114)
(Min of Higher Education USSR. Mur'kov Polyt'ch Inst in V.I. Lenin.
Chair of Internal Combustion Engines), 120 copies (M, 1-5, 1957)

-10-

AUTHOR: Polnitskiy, K.A. SOV/115-58-1-15/50

TITLE: Friction Forces Measured in the Piston Group of the Engine
(Izmereniye sily treniya v porshnevoy gruppe dvigatelya)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 1, pp 27 - 29 (USSR)

ABSTRACT: The Kharkovskiy politekhnicheskiy institut imeni V.I. Lenina (Khar'kov Polytechnical Institute imeni Lenina) has investigated the frictional forces in work conditions within the cylinders of the YaMZ-204A engine, varying with the temperature and the quality of lubricant, as well as with the speed of the piston. The article gives a detailed description of the experiments, the results of measurements, and the calculations which were made for determining the separate component factors. There is 1 oscillogram.

1. Cylinders---Friction 2. Pistons---Friction 3. Friction---Analysis
4. Friction---Temperature factors 5. Mathematics

Card 1/1

SOV/113-58-2-8/15

AUTHOR: Polnitskiy, K.A.

TITLE: Mechanical Losses in the Piston Group of a YaAZ-204A Engine
(Mekhanicheskiye poteri v porshnevoy gruppe dvigatelya YaAZ-204A).

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 2, pp 29-30 (USSR)

ABSTRACT: The mechanical losses in the piston group are determined by the average friction force between the piston and the cylinder. The force was obtained by measuring the movement of the cylinder (Figure 1). Figure 2 shows the oscillogram of the friction force of a piston with rings and the inertia of the cylinder at 1,100 rpm of the crankshaft and an oil temperature of 80°C. If the rpm are increased from 1,100 to 1,500 the average pressure of the mechanical losses increases more than 2.5 times (Figure 3). The friction coefficient of the piston rings at 1,150-1,500 rpm changes from 0.083 to 0.116 (Figure 4). At a temperature change of the oil from 110°C to 70°C the average pressure of the mechanical

Card 1/2

KRAVTSOV, S.F., kand. tekhn. nauk; POLNITSKIY, K.A., kand. tekhn. nauk

Determination of maximum permissible current of resistances in
a repeated short-term mode of operation. Elektrotehnika 35 no.7:
55-57 '64. (MTRA 17:11)

KRAVTSOV, S.F., kand.tekhn.nauk; POLNITSKIY, K.A., kand.tekhn.nauk

Heat exchange of a horizontal cylinder with free air flow. Izv.
vys. ucheb. zav.; energ. 6 no.7:69-74 J1 '63. (MIRA 16:8)

1. Khar'kovskiy politekhnicheskoy institut imeni V.I.Lenina.
Predstavlena turbinnoy seksiyey nauchno-tekhnicheskogo soveta
TSentral'nogo nauchno-issledovatel'skogo kotloturbinnogo instituta
imeni Polzunova.

(Heat-Transmission)

POJNITSKIY, K.A.

Mechanical losses in piston sets of the IaAZ-204A engine. Avt.prom.
no.2:29-30 F '58. (MIRA 11:2)

I.Khar'kovskiy politekhnicheskii institut imeni Lenina.
(Gas and oil engines--Testing)

Polnitskiy, K.A.
POLNITSKIY, K.A.

Measuring friction force in piston units of engines. Izv. tekhn. no.1:
27-29 Ja-F '58. (MIRA 11:2)

(Friction--Measurement)

POL'NYAKOVA F. Y.

FEL'DSHTEYN, E.I., kandidat tekhnicheskikh nauk; KORBMAN, S.M.;
POL'NYAKOVA, F.Ya., inzhener.

Chromium plating of cutting tools. Stan. i instr. 18 no.4:
24-26 Ap '47. (MIRA 7:11)
(Machine tools) (Chromium plating)

POLNIAKOVA, P. YA.

H. I. FELDBSTEIN, Stanki i Instrumenty, 1947 (Apr.) 24-26

FOLNIAKOWSKI, Z.

Polniakowski, Z. On certain theorems of the Mercer type. Bull. Acad. Polon. Sci. Cl. III:4 (1955), 243-245.

The transformation $(H, \mu): t_m = \sum a_{mn} s_n$, where $a_{mn} = \binom{m}{n} \Delta^{m-n} \mu_n$ ($n \leq m$), $= 0$ ($n > m$) is called the Hausdorff transform of the sequence $\{s_n\}$ into the sequence $\{t_n\}$ relative to the sequence $\{\mu_n\}$. In order that (H, μ) be regular (that is, transform convergent sequences into convergent sequences having the same limit) it is necessary and sufficient that μ_n be a regular moment constant. The author of the present paper states (proofs to be published later) several theorems regarding Hausdorff summation of which the following are examples. If $\mu_n = W_1(n)/W(n)$, where $W(x)$ is a polynomial of degree k , $W_1(x)$ is of degree $l \leq k$, $W(n) \neq 0$ and $W(0) = W_1(0)$ then necessary and sufficient conditions for the regularity of Hausdorff's method corresponding to the sequence $\{\mu_n\}$ is that the real parts of the roots of the equation $W(x) = 0$ be negative. This theorem is applied to prove the Mercerian theorem: Let $p_n = \alpha s_n + (1-\alpha)t_n$, $\alpha \neq 0$, $W(n) \neq 0$ for $n=0, 1, \dots$ and let the sequence $\mu_n = 1/w(n)$ correspond to the transformation of the sequence $\{s_n\}$ into the sequence $\{t_n\}$; the assumption $\lim p_n = s$ ($|s| < \infty$) implies $\lim s_n = s$ if and only if the real parts of all roots of the equation $W(x) = 1 - 1/x$ are negative.

V. F. Cowling (Lexington, Ky.)

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POLNIAKOWSKI, Z.

1-FW

Polniakowski, Z. On some Tauberian theorems. Bull. Acad. Polon. Sci. Cl. III. 4 (1956), 651-653.

In this paper the author states without proof generalizations of results of the paper reviewed above concerning Hausdorff transforms and Euler difference equations. A typical result follows. Let $w(z)$ be a polynomial of degree $k \geq 1$ and $w(n) \neq 0$ for $n=0, 1, 2, \dots$. Suppose 1) $\text{Re}(\alpha) > \max \text{Re}(\rho_\nu)$, where ρ_ν are zeros of $w(z)$, 2) $\limsup |n^{-\alpha} \Delta^k s_n| \leq M$ for a positive integer k , and 3) $t_n \sim s_n^\alpha$, where $\{t_n\}$ is the Hausdorff transform of the sequence $\{s_n\}$ corresponding to the generating sequence $\mu_n = 1/w(n)$. Then $t_n \sim s_n^\alpha$. The proof of this theorem depends upon a study of the asymptotic relation satisfied

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by the solutions, x_n , of the difference equation

$$L(x_n) = L^*(s_n),$$

where

$$L(x_n) = \sum_{\nu=0}^k \tau_\nu \binom{n}{\nu} \Delta^\nu x_{n-\nu}, \quad L^*(x_n) = \sum_{\nu=0}^k \eta_\nu \binom{n}{\nu} \Delta^\nu x_{n-\nu}.$$

$$\tau_\nu = (-1)^\nu \Delta^\nu w(0), \quad \eta_\nu = (-1)^\nu \Delta^\nu w_1(0), \quad w(0) = w_1(0).$$

V. F. Cowling (Lexington, Ky.)

SMW

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5

Textolite Bearings for Rolling Mills. S. Polynuchny and A. Dvornikov. (Stal, 1937, No. 9, pp. 41-44). (In Russian). Eighty-five to ninety per cent. of Russian rolling mills are now fitted with "Textolite" synthetic resin bearings in place of the bronze or white-metal bearings previously used. Suitable designs for these bearings for various types of mills and experience obtained with them are described.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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POLNYAKOV, M.I., inzh.

Determining the evenness of sowing by means of an electric
meter and oscillograph. Makh. i elek. sots. sel'khoz. 21 no.1:
45-46 '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut maslichnykh
i efirozaslichnykh kul'tur.
(Sowing)

12 ND
44

DANYSZ, A.; PRONIEWSKI, H.; WISNIEWSKI, K.; ZACZEK, T.; POLOCKI, B.

Reactivity to vegetative drugs in the acute radiation sickness.
Sborn. ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral.) 6 no. 1: 11-18
'63.

1. Department of Pharmacology, Medical Academy Bialystok,
Poland; head of Department: doc. A. Danysz, M.D.

*

SZELER, Bronislaw, inż., POLOCKI, Eugeniusz, mgr inż.

The Lodz Clock Works. Przegł techn 22 no.7/8:233-236 10-25 Ap '63.

1. Head, Department of Technology, Lodz Clock Works, Lodz (for Szeler).
2. Deputy Head, Department of Technology, Lodz Clock Works, Lodz (for Polocki).

POLIVANOV, K.M.; POLIAK, B.P.

Resonance characteristics of a magnetically uniaxial polycrystalline ferrite in a superhigh-frequency field. Izv. AN SSSR. Ser. fiz. 28 no. 3:470-480 Mr '64. (MIRA 17:5)

POLOCZEK, F.

Methods of collecting folk music. p. 191.
(Slovensky Narodopis, Vol. 5, no. 2, 1957. Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (BEAL) IC, Vol. 6, no. 10, October 1957. Uncl.

POLOCZEK, F.

A meeting of Moravian and Slovak ethnographers.

p. 549 (SLOVENSKY NARODOPIS) Vol. 5, no. 5, 1957,
Bratislava, Czechoslovakia

SO: Monthly Index of East European Accessions (EAI) LC, Vol. 7, No. 3,
March 1958

POLOCZEK, Gerard

The Boruszowice Paper Mill. Przegł papier 20 no. 21-23
Mr '64.

1. Boruszowickie Zakłady Papiernicze, Boruszowice.

POLOCZEKOVA, M.

"The valley of Hrochot"

Krasy Slovenska. Bratislava, Czechoslovakia. Vol. 36, no. 4, Apr. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

POLODUROV, N.N.

Use of rapid hardening mixtures for making molds for large
steel castings. *lit.proizv.* no.2:39 F '60. (MIRA 13:5)
(Molding (Founding))

ПОЛОЖИЛИ, В. Г.

SOV/2583

FRASE I BOOK EXPLOITATION

21(4)

International Conference on the Peaceful Uses of Atomic Energy, 2nd, Geneva, 1958.

Doblyady sovetskikh uchenykh; yadernyye reaktory i yadernaya energiya. (Reports of Soviet Scientists: Nuclear Reactors and Atomic Energy) Moscow, Atomizdat, 1959. 707 p. (Series: Itar Nuclear Power) Moscow, Atomizdat, 1959. 8,000 copies printed. 2nd, Geneva, 1958. 2) Errata slip inserted.

General Eds.: M.A. Dollechal, Corresponding Member, USSR Academy of Sciences, A.S. Krasin, Doctor of Physical and Mathematical Sciences, I.I. Kuznetsov, Member, Ukrainian SSR Academy of Sciences, and V.S. Puzanov, Corresponding Member, USSR Academy of Sciences, and A.G. Buzay, Doctor of Physical and Mathematical Sciences, Ed.: A.G. Al'yab'yev; Tech. Ed.: Ye. I. Maral.

FOREWORD: This book is intended for scientists and engineers engaged in reactor designing, as well as for professors and students of higher technical schools where reactor design is taught.

CONTENTS: This is the second volume of a six-volume collection on the peaceful uses of atomic energy. The six volumes contain the reports presented by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held from September 1 to 13, 1958 in Geneva. Volume 2 consists of three parts. The first is devoted to atomic power plants under construction in the Soviet Union; the second to experimental and research work in the experiments carried out on them, and the work to improve them; and the third, which is predominantly theoretical, to problems of nuclear reactor physics and construction engineering. Yu. I. Moryakin is the science editor of this volume. See SOV/2081 for titles of all volumes of the set. References appear at the end of the articles.

Dollechal, M.A., A.G. Krasin, M.A. Nikol'skiy, A.M. Ginzburg, and V.S. Puzanov. Experience of Operating the First Atomic Power Plant in the USSR and the Plant's Work Under Boiling Conditions (Report No. 2183) 15

Dollechal, M.A., A.G. Krasin, P.I. Alekhanov, A.M. Grigor'yan, V.V. Florinsky, M.Ye. Minamir, M.A. N. Golitsin, M.K. Rymashov, V.M. Shtarkov, Yu. I. Mityagin, and A.M. Golitsin. A Graphite-Uranium Reactor With High Pressure Steam Superheat (Report No. 2139) 36

Aleksandrov, A.P., I.I. Afrikantov, A.I. Brandau, A.I. Brandau, G.K. Gerasimov, A.Ye. Ustin, V.A. Gerasimov, and N.S. Khlopin. The Atomic Icebreaker (Report No. 2140) 60

Sizintsev, Yu. V. and M.O. Pologikh. Radiation Safety System of the Atomic Icebreaker (Report No. 2516) 87

Sivortsova, S.A. Water-water Power Reactors (WWR) in the USSR (Report No. 2184) 95

Amartuyev, M.S., A.M. Glukhov, V.V. Goncharov, A.I. Kovalev, and S.A. Sivortsov. Heat-producing Elements for Water-water Reactors of Atomic Power Plants (Report No. 2196) 119

Puchikh, G.M. and V.I. Subbotin. Cooling Water-water Reactors (Report No. 2184) 134

Yevakov, V.S. and I.V. Ivanov. A Study of Unsteady Heat Transfer in Heat-producing Elements of Nuclear Reactors (Report No. 2470) 153

Ivanovskiy, M.M., V.I. Subbotin, and P.A. Tikhonov. High-speed Method of Measuring the Heat Transfer Coefficient in the Pipe (Report No. 2475) 166

Butskulskiy, S.S., V.I. Subbotin, V.M. Borishapkiy, and L.L. Kirillov. Heat Exchange During the Flow of Liquid Metal in the Pipes (Report No. 2210) 176

Kasabekovskiy, O.R. Economics of Nuclear Fuel in Fast Power Reactors (Report No. 2028) 188

Belkin, V.B., P.A. Kravchitskiy, Yu.S. Sifonov, and O.Y. Shvedok. Thermal Neutron Density Distribution Along the Radius of Assemblies of Rod-shaped Heat Producing Elements (Report No. 2034) 199

FOLOGIKH, E. G.

"Atomic ships' safety problems."

report presented at the 3rd Intl Conf, Peaceful Uses of Atomic Energy,
Geneva, 31 Aug-9 Sep 64.

ERODER, Dmitriy Leonidovich, doktor fiz.-mat. nauk; POPKOV, Konstantin Konstantinovich; RUBANOV, Stanislav Mikhaylovich; GLADKOV, G.A., kand. fiz.-mat. nauk, retsenzent; VESELKIN, A.P., kand. fiz.-mat. nauk, retsenzent; YEGOROV, Yu.A., kand. fiz.-mat.nauk, retsenzent; POLOGIKH, B.G., kand. fiz.-mat. nauk, re retsenzent; VLASOVA, Z.V., red.; CHISTYAKOVA, R.K., tekhn. red.

[Biological shielding for ship reactors] Biologicheskaya zashchita sudovykh reaktorov. Leningrad, Izd-vo "Sudostroenie," 1964. 410 p. (MIRA 17:4)

ALEKSANDROV, A. P.; KHLOPKIN, N. S.; POLOGIKH, B. G.; TSAREV, N. M.; SLEDZYUK, A. K.

"Operation of atomic plant on the icebreaker Lenin."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,
31 Aug-9 Sep 64.

L 20050-65 EPF(c)/EPF(n)-2/EWT(m)/EPA(bb)-2/T Pr-4/Pu-4 AEDC
 AEDC(a)/SSD/SSD(a)/AFWL/ASD(p)-3/ESD(t)/ESD(bi) DM
 S/0089/64/017/005/0349/0359
 ACCESSION NR: AP4049535

AUTHORS: Afrikantov, I. I.; Mordvinov, N. M.; Novikov, P. D.;
Pclogikh, B. G.; Sledzyuk, A. K.; Khlopkin, N. S.; Tsarev, G. M.

TITLE: Operating experience with the atomic installation of the
 "Lenin" ice breaker 19

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 349-359

TOPIC TAGS: nuclear power system, reactor shutdown, reactor start
 up, nuclear propulsion

ABSTRACT: The icebreaker covered some 60,000 miles since its com-
 missioning, of which 40,000 miles were in ice. The reactors operate
 at present with their second fuel charge. Each reactor delivered
 from its first charge 430--490 thousand MW-hr of thermal energy in
 more than 11,000 hours. The average yield was 13,000 MW-day/ton of
 uranium, with the maximum reaching 30,000. The reactors operated

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ACCESSION NR: AR4039377

of compressors in the experimental engine 2DN-53 (65 hp at 1600 rpm). The design incorporates a RUTA type compressor and an Ebeshpekher gas turbine compressor. A nomogram was plotted for combined operation of the compressors at typical speeds, i.e. 1600 and 1000 rpm. Efficiency cumulates in parallel coupled compressors, while for tandem coupling it depends on the point at which the total resistance line intersects with the compressor curve. It is shown that the gas turbine compressor exerts significant resistance to the flow of air at low load levels and begins to operate efficiently only above engine loads which insure compressor speeds of 10,000 rpm. Up to 60% of the pressure generated by a gas turbine compressor is lost at high load levels to overcome the resistance offered by a drive actuated compressor. Air should be channeled to bypass the drive actuated compressor in the latter case. One illustration. P. Shelest.

SUB CODE: PR

ENCL: 00

Card 2/2

PCLOGOV, G.F., inzh.

New developments in the manufacture of pertinax foil. Vest.
elektroprom. 34 no.5:66 My '63. (MIRA 16:5)
(Plastics) (Electric insulators and insulation)

POLOGOV, P., inzh.

Power-operated equipment for lapping stands. Avt.transp. 37

no.3:48-49 Mr '59.

(MIRA 12:4)

(Grinding machines)

POLOGOV, P., inshener.

Repairing the coupling of the valve seat in GAZ-51 engine. Avt. transp.
33 no.10:23 O '55. (MLRA 9:1)
(Automobiles--Engines)

POLOGOV, P.S.

Chip breaker with an automatic adjustment of the baffle plate.
Stan. i instr. 31 no. 6:37-38 Jo '60. (NIM 14:2)
(Machine tools--Attachments)

Pologov, P.S.

USSR/ Engineering - Plating

Card 1/1 Pub. 128 - 18/31

Authors : Pologov, P. S., and Mogilko, P. T., Engineers

Title : Metallization over natural gas

Periodical : Vest. mash. 35/5, 50-51, May 1955

Abstract : The advantages derived from utilizing Saratov source natural gas instead of acetylene for the process of metal plating of internal surfaces of oil tanks are discussed. The metal sprayer and other equipment used in metal coating with natural gas are described. Drawings.

Institution :

Submitted :