

1940, 1. 1.

Slav nachalnikov: soldier (what the work managers have to say).

.oscor 1940.

SISKO, M.

TECHNOLOGY

SISKO, M. Adapting ultra short-wave antennas, p. 359; Fundamentals of electronics. p. 360; Electron tubes. p. 361; M.D. How to modernize detector receivers. p. 362.

Vol. 11, no. 12, Dec. 1957

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass

ZHARDINSKAYA, N.G.; KRUCHININ, Yu.A.; SISKO, R.K.

Snowstorm at the height of the summer. Probl.Arkt. no.4:99-100
'58. (MIRA 11:12)

(New Siberian Islands--Snow)

SISKO, R.K.

June thunderstorms on Novosibirskiye Islands. Probl.Arkt.
no.5:127-131 '58. (MIRA 13:5)
(Novosibirskiye Islands--Thunderstorms)

SISKO, R.K.; RUTILEVSKIY, G.L.

Underground fire in the Arctic. Probl.Arkt.i Antarkt. no.7:64-66
'61. (MIRA 14:10)

(Novaya Sibir' Island--Coal)

SISKO, R.K.; RUTHEVSKIY, G.L.

How islands disappear. Probl. Arkt. i Antarkt. no.8:103-106 '61
(MIRA 15:3)
(Novaya Sibir' Island--Erosion)

SISKO, R.K.

Hydrological investigations of the Gedenstrom River (Novaya
Sibir' Island). Probl. Arkt. i Antarkt. no.10:39-46 '62.
(MIPA 16:2)

(Gedenstrom River--Hydrology)

SISKO, R.K.

Discharge curve for the Gedenshtroma River (Novaya Sibir' Island).
Probl. Arkt. i Antarkt. no.13:128-129 '63. (MIFA 16:9)
(Gedenshtroma River--Stream measurement)

SISKO, R.K.; RUTILEVSKIY, G.L.; SVESHNIKOVA, I.N.; BUDANTSEV, I.Yu.

New materials on the fossil flora of Novaya Sibir' Island.
Trudy ANII 224:222-233 '63 (MIRA 18:1)

SISKOV, N.

How to use the Renovex machine for spraying. p.32.

(Socijalisticko zemjodelstvo, Vol. 9, No. 3, Mar. 1957, Skopje, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol.6, No. 8, Aug 1957. Uncl.

SISKOV, N.

Grape-berry mothds and methods of fighting them. p. 19

(SOCIJALISTICKO ZEMJODELSTVO. Vol. 9, No. 4, Apr. 1957. Beograd, Yugoslavia)

SO: Monthly List of East European Accesssions (EEAL) LC. Vol. 6, No. 10, October 1957. Uncl.

SISKOV, NAKO

Grape moths

GROZDOVI MOLCI "Narodna zadruga," 1958 62p.

NN Not in DLC

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, no. 6,

June 1959

Uncl.

SIS'KOV, V.I., kand. ekonom. nauk

Economic indices of the quality and reliability of production.
Standartizatsiia 28 no.6:26-29 Je '64. (MIRA 17:9)

25(6)

S/028/60/000/03/001/029
D041/D006

AUTHORS: Sis'kov, V.I. and Katsev, P.G.

TITLE: Establishing Tool Quality by Methods of Statistical Control 14

PERIODICAL: Standartizatsiya, 1960²⁴, Nr 3, pp 3-6 (USSR)

ABSTRACT: This article deals with production research, viz. how to determine the correlation between the operational properties of a product and its physical, chemical, geometrical, and other parameters by applying statistical mathematics. These relationships may be used for evaluating the operational quality of a product, to form its quality index, and to determine its dynamics in time. Numerous Soviet and foreign tests have shown, for instance, that it is impossible to evaluate accurately the quality of cutting tools on the basis of their design and geometrical parameters, because in the main they do not comply with those tolerances foreseen by standards, ✓

Card 1/2

S/121/63/000/001/006/014
A004/A126

AUTHORS: Katsev, P.G., Sis'kov, V.I.

TITLE: The application of mathematical statistics to the investigation of cutting tools

PERIODICAL: Stanki i instrument, no. 1, 1963, 20 - 26

TEXT: The authors present a study on the possibility of applying mathematical statistics to investigating cutting tools. They point out that mathematical statistics as a method of processing experimental data and as a research method extend the possibility of studying cutting tools and cutting processes. A correlative analysis permits of investigating the cutting process and the cutting tool under actual conditions and thus makes it possible to obtain the dependences, taking into account the real variation of factors, on each variable separately (equations of pair correlation) and also on a number of variables (equations of multiple correlations). The authors emphasize that the use of mathematical statistics in the investigation of cutting tools makes it possible to evaluate the degree of influence on the process of unknown and indeterminable

Card 1/2

S/002/62/000/007/001/001
A004/A127AUTHORS: Katsev, P., Sis'kov, V. L.

TITLE: Statistical estimate of the service dependability of tools

PERIODICAL: Vestnik statistiki, no. 7, 1962, 23 - 40

TEXT: The authors investigate the quality of cutting tools in automated production. They define the dependability of a tool, which they consider the main characteristic of cutting tools, as the probability of its normal operation in the course of a certain period of time, and present an index of dependability which is determined by the formula:

$$I_h = \frac{\sum i q_1 e_1}{\sum q_1 e_1}$$

where I_h = index of dependability (in %); i = ratio of dependability of the current period to the dependability of the basic period; q_1 = production output in the current period; e_1 = unit price of article in the current period. Based on investigations of the dependability of drills 5 mm in diameter, manufactured by the Tool Plant im. Voskov and tested at the avtozavod im. Likhacheva (Automobile

Card 1/2

KATSEV, P.G.; SIS'KOV, V.I.

Using mathematical statistics in investigating metal-cutting
tools. Stan.i instr. 34 no.1:20-26 Ja '63. (MIRA 16:2)
(Metal-cutting tools—Testing)

L 45197-6b EWI(m)/EWP(j) IJP(c) RM

ACC NR: AP6022453

SOURCE CODE: UR/0422/66/000/001/0011/0015

AUTHORS: Sis'kov, V. I.; Sedov, V. I.; Solov'yev, A. A.; Orlova, V. Ya.

42
B

ORG: none

TITLE: Statistical methods of standardization of the quality of production

SOURCE: Standarty i kachestvo, no. 1, 1966, 11-15

TOPIC TAGS: tire, quality control, normal distribution, probability, tensile strength, elongation, hardness, wear resistance / 260-20 tire

ABSTRACT: The statistical principles of the standardization of the quality of production are examined by the example of the tire industry. The quality of the 260-20 tires of the Moscow, Yaroslav, Omsk, and Yerevan plants is considered. The quality indices are divided into two groups: those with a normal distribution (tensile strength and hardness) and those with a distribution of essentially positive values (wear, residual elongation, specific elongation, tensile strength in lamination between tread and breaker, breaker and carcass, sidewall and carcass, and between layers of carcass). It is found that the established requirements for the guaranteed and average mileage of the tires are insufficiently founded, as they do not reflect the statistical laws in mileage distribution. A final conclusion about quality norms should be made on the basis of correlation analysis. Orig. art. has: 6 formulas and 4 tables.

SUB CODE: 13, 14/ SUBM DATE: none/ ORIG REF: 002

Card 1/1 hs

SISKOVA, M.; ERDOS, E.

Adsorption from solutions of nonelectrolytes on solid adsorbents.
I. General relations and simple model. Coll Cz Chem 25 no.7:1729-1735
Jl '60. (EEAI 10:9)

1. Institut für physikalische Chemie, Technische Hochschule für Chemie,
Prag und Institut für physikalische Chemie, Tschechoslowakische
Akademie der Wissenschaften, Prag.

(Adsorption) (Solutions)

SISKOVA, M.; ERDOS, E.

Adsorption from solutions of nonelectrolytes on solid adsorbents.

II. More complex models. Coll Cz chem 25 no.10:2599-2610 0 '60.

(KEAI 10:9)

1. Technische Hochschule fur Chemie und Institut fur physikalische Chemie, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Adsorption) (Solutions)

SISKOVA, M.; ERDOS, E.

Adsorption from non-electrolyte solutions on solid adsorbents.
Part 3: Adsorption from double solutions of benzol, tuluol,
tetrachlorocarbon and chlorobenzol on silica gel and active carbon.
Coll Cz Chem 26 no.12:3086-3100 D '61.

1. Technische Hochschule fur Chemie und Institut fur physikalische
Chemie, Tschechoslowakische Akademie der Wissenschaften, Prag.

CZECHOSLOVAKIA

ERDOS, E; SISKOVA, H

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague (for 7); 2. Department of Physical Chemistry, Institute of Chemical Technology, Prague - (for 7)

Prague, Collection of Czechoslovak Chemical Communications, No 2, February 1966, pp 415-426

"Surface tension of binary solutions of non-electrolytes. Part 1. General relations and simplified models."

SISKOVA, Z.P.

Lignin-carbohydrate link in the wood substance. P. N. Odincova and Z. P. Siskova. *Latvian PSR Zinatnu Akad. Vests* 1952, Dec. 12 (Article No. 65), 73-6 (in Russian; Latvian summary, 80).—The wood substance from fir was decomposed enzymically with *Coniophora cerebella* (I), or thermophilic cellulose bacteria obtained from horse manure, or soil bacteria (*Cytophaga aurantiaca*) (II), or emulsion (III). The results indicated that the natural lignin contained 1.16% free phenolic OH groups (IV); this comprises 6% of all phenolic groups of lignin. Thus there is one IV per 8 elementary units of lignin. I and II split the lignin-carbohydrate complex with formation of one IV per 30-40 elementary units of lignin. III splits the complex with formation of one IV per 20 elementary units. Conclusion: The link between the lignin and carbohydrates is β -glucosidic, with participation of the phenolic group of the lignin and the aldehyde group of the carbohydrate. A. D.

1984, Frantisek, 1984.

Standardization of agricultural machines and tractors in the
International Organization for Standardization. Normalizace
12 no.1:12-16 1984.

1. Vyzkumny ustav zemedelyskych stroju, Chodov u Prahy.

SISLER, Frantisek, inz.

International standardization of agricultural machines and
tractors. Normalizace 13 no.2:58 F '65.

1. Research Institute of Agricultural Machines, Chodov near
Prague.

SINGER, Evzen; SISLER, Ladislav

Experience with the visual fluorescence determination of uranium.
Chem prum 12 no.7:350-352 J1 '62.

1. Vyzkumny ustav anorganicke chemie, Usti nad Labem.

89345

Z/026/60/005/002/001/001
B124/B202

16.6500
AUTHOR:

Sisler, Miroslav

TITLE:

On the convergence of the iteration method for solving a system of nonlinear equations

PERIODICAL: Aplikace Matematiky, v. 5, no. 2, 1960, 141-150

TEXT: The author describes and proves some conditions sufficient for the convergence of the iteration methods for which the following approximations of the solution can be defined by means of the formula

$$\vec{x}_{\nu+1} = \varphi(\vec{x}_{\nu}), \nu = 0, 1, 2, \dots, \vec{x}_{\nu} = (x_{\nu,1}, \dots, x_{\nu,n}), \varphi = (\varphi_1, \dots, \varphi_n),$$

where φ_i are appropriate functions. The following theorem is presented:

If N is assumed to be a natural number, $P_k = \max_{i;k_1, \dots, k_n} Q_{i;k_1, \dots, k_n}$,
 $K = 1, 2, \dots, N, i = 1, \dots, n, k_1 + \dots + k_n = K, k_1 = 0, \dots, k_n = 0,$

$$Q_{i;k_1, \dots, k_n} = \sup_{|x_i - x_{0,i}| \leq 2d_0} \left| \left[\frac{\partial \varphi_i}{\partial x_1^{k_1}} \dots \frac{\partial \varphi_i}{\partial x_n^{k_n}} \right] (\vec{x}) \right|, \text{ and}$$

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On the convergence of the ...

$d_0 = \max_{i=1, \dots, n} |x_{1,i} - x_{0,i}|$ is to satisfy the following condition:

$$d_0 < (1/2)(N!/n^N P_N), \quad (1/1!)n P_1 + (1/2!)n^2 P_2 d_0 + \dots + (1/N!)n^N P_N d_0^{N-1} < 1/2^{N-1},$$

then at least one point $\vec{a} = (a_1, \dots, a_n)$ exists so that

$\max_{i=1, \dots, n} |a_i - x_{0,i}| \leq 2d_0$ and $\vec{a} = \varphi(\vec{a})$. If the iteration is of N-th

order in the region $\Omega \subset E^N$ which contains the set of points \vec{x} for which

$\max_{i=1, \dots, n} |x_i - x_{0,i}| \leq 2d_0$, then the following holds for the sequence

$\{\vec{x}_y\}_{y=0}^{\infty}$, $\vec{x}_{y+1} = \varphi(\vec{x}_y)$: 1) only one single point \vec{a} exists so that $\vec{a} = \varphi(\vec{a})$, $\max_{i=1, \dots, n} |a_i - x_{0,i}| \leq 2d_0$ and $\lim_{y \rightarrow \infty} \vec{x}_y = \vec{a}$; 2) $\delta_{y+1} \leq (2/1!)n P_1 d_y$

$$+ (2/2!)n^2 P_2 d_y^2 + \dots + (2/N!)n^N P_N d_y^N \leq 2P(e^{nd_y} - 1) + (2/N!)n^N P_N d_y^N,$$

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On the convergence of the ...

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$$P = \max(P_1, \dots, P_{N-1}), \delta_{\nu+1} = \max_{i=1, \dots, n} |x_{\nu+1, i} - a_i|, d_\nu = \max_{i=1, \dots, n} |x_{\nu+1, i} - x_{\nu, i}|$$

3) If $0 < \Delta < 1$, $\gamma = 2 / \left\{ \left[\frac{1}{(N!)} n^N P_N \right]^{1/(N-1)} \right\}$ then a natural number ν_0 exists so that $\left[(4/\gamma) d_0 \right]^{N_\nu} \leq \Delta$ and that for all natural numbers $\nu \geq \nu_0$ the following error estimates hold: $\delta_{\nu+1} \leq (2/\gamma)^{N-1} \left[1/(1-\Delta^{N-1})^N \right] d_\nu^N$ (11)

$$\delta_{\nu+1} \leq \left(\frac{2}{\gamma} \right)^{N-1} \left[\frac{1}{1-\Delta^{N-1}} \right]^{N-1} d_\nu^N \left\{ 1 + (2/\gamma)^{N-1} \left[\frac{1}{1-\Delta^{N-1}} \right]^N d_\nu^{N-1} \right\} \quad (12).$$

As an example, the solution of two equations with two unknown quantities $x^3 - 2xy + 2 = 0$; $xy^2 - 2y = 0$ is obtained by the Newtonian iteration method which, with exception of those points in which the functional determinant of the system of equations is zero, generally is of second order.

If $\varphi_1 = (2x^4y - 2x^3 + 2) / (3x^3y - xy^2 - 3x^2 + 2y)$, $\varphi_2 = (2x^3y^2 - xy^3 + y^2) / (3x^3y - xy^2 - 3x^2 + 2y)$,

Card 3/4

S/044/63/000/002/033/050
A060/A126

AUTHOR: Šisler, Miroslav

TITLE: On an iteration method for the solution of a system of nonlinear equations

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1963, 16 - 17, abstract 2V60 (Časop. pěstov. mat, 1961, v. 86, no. 4, 439 - 461; Czech; summaries in Russian, German)

TEXT: Let there be given a system $f_i(x) = 0$, $i = 1, \dots, n$, of nonlinear equations, where x is a real vector with the coordinates x_1, \dots, x_n , and the f_i are functions having continuous partial derivatives of the first and second order $f_{ij}(x)$, $f_{i,jk}(x)$ in the neighborhood of some real solution of the given system of equations. The $(v+1)$ -th approximation using the iteration method being considered is defined by the formula

$$x_{v+1} = (P(x_v) - Q(x_v))^{-1} Q(x_v) x_v + (P(x_v) - Q(x_v))^{-1} g(x_v)$$

where $y(x_v) = F(x_v) x_v - z(x_v)$ (this implies that $x_{v+1} - x_v = \Phi(x_v) -$

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S/044/63/000/002/033/050
A060/A126

On an iteration method for the solution of

- $Q(x_v)^{-1} z(x_v)$). Here the equality $F(x) = P(x) - Q(x) - Q'(x)$, $Q'(x)$ is the transpose of the matrix $Q(x)$, where the symmetric matrix $F(x) = (F_{ij}(x))$ is defined in the following way:

$$F_{ij}(x) = \sum_{k=1}^n f_{k,i}(x) f_{k,j}(x).$$

Further,

$$z(x) = \begin{pmatrix} F_1(x) \\ F_2(x) \\ \vdots \\ F_n(x) \end{pmatrix},$$

where

$$F_i(x) = \sum_{k=1}^n f_{k,i}(x) f_k(x),$$

$$x_v = \begin{pmatrix} x_{v,1} \\ x_{v,2} \\ \vdots \\ x_{v,n} \end{pmatrix}.$$

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On an iteration method for the solution of

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It is clear that this method corresponds to Zeydel's known iteration method for the solution of systems of linear equations. For the case when in the neighborhood of the solution the conditions $\det F(x) \neq 0$ are fulfilled and the matrix $P(x)$ is symmetric and positive definite, the convergence of this iteration method is demonstrated and certain estimates are derived for the error. A special case of this method is also investigated, when $P(x)$ is a diagonal matrix, and $Q(x)$ is a triangular matrix. At the end of the paper a modification of the iteration method described above is indicated for the computation of extrema of a function of n real variables.

J. Eliáš

[Abstracter's note: Complete translation]

Card 3/3

SISLER, Miroslav (Praha)

"Lectures on functional equations and their application" by J. Aczel.
Reviewed by Miroslav Sisler. Cas pro pes mat 87 no.4:497-498 0 '62.

SISLER, Miroslav

Solution of nonlinear equation systems. Cas pro pest mat 88
no.4:414-429 '63.

1. Matematicky ustav, Ceskoslovenska akademie ved, Praha 1,
Zitna 25.

SISLER, Miroslav

An iteration method for solution of a system of approximate linear equations. Cas pro prest mat 89 no.1:36-52 F '64.

1. Mathematical Institute, Czechoslovak Academy of Sciences, Prague 1, Zitna 25. Submitted August 21, 1962.

COUNTRY:	: Rumania	H-28
CATEGORY	:	
ABS. JOUR.	: RZKhim., No.5 1960, No.	19828
AUTHOR	: <u>Sisler, O.</u>	
INST.	: Not given	
TITLE	: The Evaluation of the Degree of Contamination of Food Products from Sanitary Microbiological Analysis Data	
ORIG. PUB.	: Ind Aliment Prod Anim, 7, No 6, 167-169 (1959)	
ABSTRACT	: No abstract.	

CARD: 1/1

SISLER, Zdenek; KEDA, Miloslav

Chemical changes of wood substance in fiberboard production
by dry process. Drevarsk. vyskum no. 2:159-174 '62.

SISLEY, F.

25888

Kray pchelovodnyi (Kaliningr obl) Pchelovodstvo, 1949, No. 8. s. 46-50.

SO: Letopis' No. 34

SISLOV, D.: MIHALICEK, N.

Construction of forest roads in Bosnia and Hercegovina. p. 264.

NARODNI SUMAR. (Društvo sumarskih inženjera i tehničara Bosne i Hercegovine)
Sarajevo, Yugoslavia. Vol. 12, no 4/6, Apr./June 1958.

Monthly List of East European Accessions (EEAI) LC Vol. 9, no. 2, Feb. 1960.

Uncl.

SKERLAC, Tibor; NINKOV, B.; SISLOV, V.

Activity coefficients of symmetrical monovalent electrolytes
in dimethylsulfoxide. Glasnik hemicara BiH 11:39-42 '62.

1. Laboratory of Physical Chemistry, Chemical Institute,
University of Sarajevo.
2. Membre du Comite de redaction, "Glasnik Drustva hemicara
i tehnologa SR Bosne i Hercegovine" (for Skerlak).

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L 18055-63

EPA(b)/EWT(1)/BDS AFFTC/ASD Pd-4

S/0207/63/000/003/C153/0155

ACCESSION NR: AP3002824

58

AUTHOR: Sislyan, Zh. S. (Moscow)

TITLE: Interaction of perturbations with a shock wave for one-dimensional unstable gas movement

SOURCE: Zhurnal prikladnoy mekheniki i tekhnicheskoy fiziki, no. 3, 1963, 153-155

TOPIC TAGS: shock wave, piston, perturbation, gas flow, differential equation

ABSTRACT: The author considers the gas flow caused by a piston moving in a long cylinder where it is assumed that the velocity of the piston is slowly varying. Doing a standard linearization on the governing differential equations, he arrives at an approximate solution. He is able to draw conclusions for various cases concerning the magnitude of the coefficient of reflection of the perturbation from the shock wave as a function of thermal capacity and the unperturbed velocity of the shock wave. "The author thanks S. S. Grigoryan for the proposed problem and valuable advice." Orig. art. has: 16 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 03Jan63

DATE ACQ: 16Jul63

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 000

Card 1/1

L 9416-66 EWT(d)/JPT-1 EWP(m)/EWT(m)/EWP(w)/EWA(d)/T-2/EWP(k)/FCS(k)/EWA(h)

ACC NR: AP5026936 ETC(m)/EWA(1) EM/WH/SOURCE CODE: UR/0373/65/000/005/0149/0151

AUTHOR: Sislyan, Zh. S. (Moscow)

68

66

B

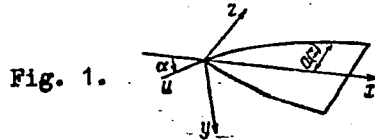
ORG: none

TITLE: ^{1, 55} Supersonic flow around planar wings ²⁶ beneath the angle of attack

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 5, 1965, 149-151

TOPIC TAGS: fluid mechanics, shock wave mechanics, shock wave front, aerodynamics, shock wave formation

ABSTRACT: Flow around a planar wing beneath the angle of attack α is studied. The flow is that of a fluid moving at a supersonic velocity U . The wing is in a plane given by $-a(x) < z < a(x), y = 0, 0 < x < l (a_x \geq 0)$ (see Fig. 1).



It is assumed that the geometrical parameters of the wing and the parameters of the incident stream are such that a shock wave forms at the leading edge of the wing as a compound wave. The equations of motion, continuity, and adiabaticity are expressed in

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ACC NR: AP5026936

Cartesian coordinates as

$$\frac{\partial(\rho u)}{\partial x} + \frac{\partial(\rho v)}{\partial y} + \frac{\partial(\rho w)}{\partial z} = 0$$

$$\left[u \frac{\partial}{\partial x} + v \frac{\partial}{\partial y} + w \frac{\partial}{\partial z} \right] \left(\frac{u^2 + v^2 + w^2}{2} + \frac{\gamma}{\gamma - 1} \frac{p}{\rho} \right) = 0$$

$$u \frac{\partial v}{\partial x} + v \frac{\partial v}{\partial y} + w \frac{\partial v}{\partial z} = - \frac{1}{\rho} \frac{\partial p}{\partial y}$$

$$u \frac{\partial w}{\partial x} + v \frac{\partial w}{\partial y} + w \frac{\partial w}{\partial z} = - \frac{1}{\rho} \frac{\partial p}{\partial z}$$

$$\left[u \frac{\partial}{\partial x} + v \frac{\partial}{\partial y} + w \frac{\partial}{\partial z} \right] \left(\frac{p}{\rho \gamma} \right) = 0,$$

where p , ρ , u , v , and w are the pressure, density, and velocity projections in the x , y , and z directions respectively. The solution of the above set of equations must satisfy the conditions: at the surface of the body $-a(x) < z < a(x)$, $0 < x < l$, the velocity component normal to the surface of the wing at $y = 0$ is zero, i.e., $v(x, 0, z) = 0$, and for $S(x, y, z) = y - y_s(x, z) = 0$ it holds that

$$[\rho(q \cdot n)] = 0, \quad [q \times n] = 0, \quad p_s = \frac{2\rho_\infty}{\gamma + 1} (q_\infty \cdot n)^2 - \frac{\gamma - 1}{\gamma + 1} p_\infty$$

$$p_s = p_\infty \frac{\gamma + 1}{\gamma - 1} \left\{ 1 + \frac{2}{\gamma - 1} \frac{a_\infty^2}{(q_\infty \cdot n)^2} \right\}^{-1}$$

The problem is redefined in terms of new variables, and solved. The solution is sought in the form of a series involving a minor parameter characterizing the relationship of the surfaces before and behind the shock wave. The derived solution is

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L 9416-65

ACC NR: AP5026936

2
compared with that of A. L. Gonor (Obtekaniye konicheskikh tel pri dvizhenii gaza s bol'shoy sverkhzvukovoy skorost'yu. Izv. AN SSSR, OTN, 1959, No. 1). The author thanks S. S. Grigoryan for his consultations. Orig. art. has: 12 equations and 1 figure.

S
SUB CODE: 20/ SUBM DATE: 21Apr64/ ORIG REF: 003

Card 3/3 *ids*

L 29863-66 EWT(1)/EWP(m)

ACC NR: AP6013195

SOURCE CODE: UR/0421/66/000/002/0037/0046

66
B

AUTHOR: Sislyan, Zh. S. (Moscow)

ORG: none

TITLE: Linearized unsteady state non-equilibrium flows of a compressible gas

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 2, 1966, 37-46

TOPIC TAGS: gas flow, compressible gas, gas diffusion, viscosity, heat conductivity, Laplace transform

ABSTRACT: The article considers the field of disturbed flow caused by the unsteady state motion of a thin profile located in a uniform and equilibrium flow of gas, moving with a velocity U_{∞} along the positive x axis in a fixed system of coordinates x, z. It is assumed that in this field of disturbed flow there takes place a non-equilibrium process, such as, for example, the relaxation of the internal degrees of freedom of the molecules, or the dissociation reaction of the molecules of a diatomic gas. The effect of viscosity, heat conductivity, and diffusion is neglected. The problem reduces to integration of the equation:

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L 29863-66

ACC NR: AP6013195

$$T_{\infty} \left(\frac{\partial}{\partial t} + U_{\infty} \frac{\partial}{\partial x} \right) \left(\lambda_1^2 \frac{\partial^2 \Phi}{\partial x^2} - \frac{\partial^2 \Phi}{\partial z^2} + 2 \frac{U_{\infty}}{a_{f\infty}^2} \frac{\partial^2 \Phi}{\partial x \partial t} + \frac{1}{a_{f\infty}^2} \frac{\partial^2 \Phi}{\partial t^2} \right) +$$

$$+ \left(\lambda_e^2 \frac{\partial^2 \Phi}{\partial x^2} - \frac{\partial^2 \Phi}{\partial z^2} + 2 \frac{U_{\infty}}{a_{e\infty}^2} \frac{\partial^2 \Phi}{\partial x \partial t} + \frac{1}{a_{e\infty}^2} \frac{\partial^2 \Phi}{\partial t^2} \right) = 0$$

$$(\lambda_1^2 = M_f^2 - 1, \lambda_e^2 = M_e^2 - 1) \quad (1.1)$$

Here T_{∞} is a parameter which is proportional to the relaxation time Θ_{∞} (the subscript ∞ indicates quantities relating to undisturbed flow).

Φ is the potential of the disturbed velocity;

$M_f = U_{\infty} / a_{f\infty}$, $M_e = U_{\infty} / a_{e\infty}$, $a_{f\infty}$ and $a_{e\infty}$ are respectively the fixed and the equilibrium velocity of sound. The remainder of the article is devoted to a formal solution of this equation, employing Laplace transforms. Orig. art. has: 57 formulas and 1 figure.

SUB CODE: 20,2/SUBM DATE: 17Sep65/ ORIG REF: 003/ OTH REF: 005

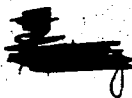
Card 2/2

SISMAN, E.

27
 The complexometric determination of phosphates and hexaphosphate. R. Vasiliev, Vera Scintee, Elena Sisman, J. Fruchter, M. Jecu, I. Chialda, and Gr. Anastasescu (Inst. cercetari farm. si controlul med., Bucharest, Romania). *Lucrările prezentate conf. naț. farm., Bucharest 1958, 100-7.*—A new complexometric method is proposed for the indirect detn. of the phosphates of Na, K, Ca, Mg, and codeine, as well as of hexaphosphate, by pptn. with Bi nitrate in a medium of dil. HNO₃ and titration of the excess of Bi nitrate with Complexon III, with Pyrocatechol Violet used as a specific indicator. The pptn. of the Bi nitrate is quant. and thus the soly. of the ppt. does not affect the results.
 Felicitas D. Goodman

9

LB
//



ROMANIA

VASILIEV, R., Pharmacist; SISMAN, Elena, Pharmacist.

Institute of State Control of Medicines and Pharmaceutical Research
(Institutul pentru controlul de stat al medicamentelor si cercetari
farmaceutice) - (for all)

Bucharest, Farmacia, No 7, Jul 63, pp 393-396.

"Determination in a non-aqueous medium of the Dosage of 1-piperidino-
2-methyl-3(4-tolyl) Propanone hydrochlorate contained in the
Product 'Mydocalm'."

VASILIEV, R.; SCINTEE-PAZARINA, V.; SISMAN, E.

A new determination method of papaverine hydrochloride in a nonaqueous medium. Rev chimie Min petr 14 no.6:352-353 Je '63.

1. Institutul pentru controlul de stat al medicamentelor si cercetari farmaceutice.

VASILIEV, R.; SISMAN, El.

Determination of 1-piperidine-2-methyl-3-(4'-tolil)-propanone-3
in Mydocalm pills. Rev chimie Min petr 14 no.9:533-534 S '63.

1. Institutul pentru controlul de stat al medicamentelor si
cercetari farmaceutice.

VASILIEV, R.; BILCAN, Elena; SCINTEE-P. ZARINA, Vera

Determination of the pyramidon and o-oxyquinoline-m-sulfonic acid in the Antigermin product. Rev chimie Min petr 15 no. 1: 46 Ja '64.

1. Institutul pentru controlul de stat al medicamentelor si cercetari farmaceutice.

VASILIEV, R.; PAZARINA V.; SISMAN, E.

Determining some components in Lizadon (Spasmoverin)
tablets. Rev chimie Min petr 15 no. 3: 163 Mr '64.

1. Institutual pentru controlul de stat al medicamentelor
si cercetari farmaceutice.

SISMAN, Savu, ing.sef

Technology in support of production. Constr Buc 15 no.725:1 30 N
'63.

1. Laboratorul central al D.G.C.M.U.C.R.

S/184/60/000/005/002/021
A104/A026

AUTHORS: Sis'mekov, V.K., Engineer; Kogan, L.A., Candidate of Technical Sciences

TITLE: Calculation of Flat Flanges Firmly Connected to Spherical Covers

PERIODICAL: Khimicheskoye mashinostroyeniye, 1960, No. 5, pp. 26 - 29

TEXT: The calculation of large-diameter flange connections is discussed with regard to radial transposition of the ring under the influence of the torsional moment and the extreme shearing force. Investigations showed that neglect of the transposition factor can result in considerable calculation errors. Two cases of flange connections loaded by the torsional moment resulting from tightening of bolts and from even internal pressure are presented. Formulae, tables and graphs simplify the calculation of the tensile strength and the determination of flange deformations. A bolt-loaded flange connection is shown (Fig. 1), as the torsional moment M , evenly distributed along the axial line of the flange (Ref. 1). The values are X_1 = extreme shearing force and X_2 = extreme buckling force. The reciprocal radial transposition of cover edges and ring under the influence of the unit $X_1 = 1$ is determined by

Card 1/3

S/184/60/000/005/002/021
A104/A026

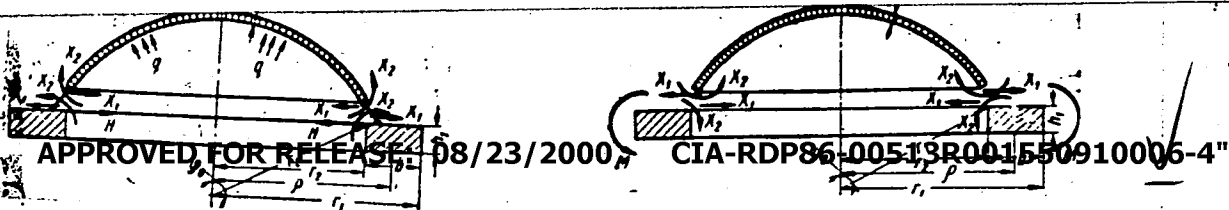
Calculation of Flat Flanges Firmly Connected to Spherical Covers

$$\delta_{11} = \frac{1}{E} \left(\frac{2kr_2 \sin \varphi_0}{h_c} + \frac{3r_2}{h_1 \ln \frac{r_1}{r_2}} + \frac{r_2 p}{F_1} \right), \quad (3)$$

where E = elasticity of flange and cover in kg/cm²; F₁ = sectional area of the ring in cm²; μ = shearing strain coefficient; k = $\sqrt[4]{3(1-\mu^2)} \cdot \sqrt{\frac{r_c}{h_c}}$ - geometric characteristics of the spherical cover (Ref. 2). In case of flange connections with an internal pressure, the thrusting force on the ring equals

$H = \frac{qr_c}{2} \cos \varphi_0$ (Fig. 4). Ring stresses of moments are determined according to the Timoshenko formula (Ref. 1) and internal pressure stresses according to the Lyame formula. Formulae determining the strain were obtained with due regard to the influence of the torsional moment and extreme shearing force on the transposition of the ring. Basic difficulty in the calculation of the tightness of flanges is the lack of a basic formula for the determination of the yielding coefficient of couplings (Ref. 3). There are 5 figures and 4 Soviet references.

Card 2/3



Card 3/3

35035
S/145/60/000/010/003/014
D262/D304

10.6/00

AUTHOR: Sis'mekov, V.K., Aspirant
TITLE: Design of flanged joints for strength and rigidity
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashino-
stroeniye, no. 10, 1960, 56 - 64

TEXT: The author considers the design of flanges joined with either the wide or the narrow edge of a conical shell of uniform or variable thickness. The bending moment X_2 and the shearing force X_1 are found from the condition of continuity at the junction of the flange and shell. Final forms for the case of flange joined with the wide edge of a shell are

$$X_1 = \frac{2M}{h_1} \cdot K_1 \quad (9) \quad K_1 = \frac{1+n}{A} \quad (10) \quad A = 1 + 2n + 2n^2 + 0.576 mn \quad (11)$$

$$n = \frac{s_1 \sin \alpha}{h_1} \quad (12) \quad m = \frac{n^2 \cdot b}{h_2^2 p} \quad (13) \quad X_2 = nK_2 M \quad (14) \quad K_2 = \frac{1-2n}{A} \quad (15) \quad \checkmark$$

Card 1/2

Design of flanged joints for ...

S/145/60/000/010/003/014
D262/D304

and the angle of rotation of the joint

$$\varphi = ZK_3 M \left(Z = \frac{S_1}{E_1}, K_3 = \frac{n^2}{A} \right)$$

$S_1 = 0.76 \sqrt{r}$, h_2 is the edge characteristic. [Abstractor's note: h_1 and h_2 not defined in the text. The author refers to a figure, but only h_2 and n without index appear on the latter. The text states that in the first case the thickness of the shell is constant, but on the corresponding figure it is variable]. Similar formulae are deduced for other cases. Formulae for stresses are also given. A numerical example is added. It is stated that the introduction of the parameters $/m/$ and $/n/$ simplifies the expressions. There are 3 figures and 3 Soviet bloc references.

ASSOCIATION: Ural'skiy politekhnicheskii institut im. S.M. Kirova
(Urals Polytechnic Institute im. S.M. Kirov)

SUBMITTED: January 17, 1960

Card 2

X

SIS' MEKOV, V. K., Cand. Tech. Sci. (diss) "Computation of Flanged Connections of Axle-symmetric Rotating Sheaths," Sverdlovsk, 1961, 20 pp. (Urals Polytech. Inst.) 150 copies (KL Supp 12-61, 274).

SIS' MEKOV, V.K., inzh.

Strength and tightness analysis of flanged joints. Rasch.na
prochn. no.7:175-190 '61. (MIRA 14:11)
(Couplings)

SIS' MEKOV, V.K.

Calculation of flat flanges which are rigidly connected
with cylindrical shells. Trudy Ural. politekh. inst. no.102:
121-131 '61. (MIRA 16:11)

KOGAN, L.A.; SIS'MEKOV, V.K.; NEMTSOVA, M.K.

Experimental study of cast iron flange connectors of
hydraulic turbine joints. Trudy Ural. politekh. inst.
no.102:132-145 '61. (MIRA 16:11)

SIS'MEKOV, V.K.; USACHEV, A.A.

~~Experimental~~ study of the strength of flange joints subject
to external bending moment. Trudy Ural. politekh. inst.
no.132:102-109 '62. (MIRA 16:6)

(Pipe joints--Testing)

Czechoslovakia/General Biology. Cytology

B

Abs Jour : Ref Gen-Biol., No 13, 1958, 57071

Author : Cisna Milan

Inst : Not given

Title : Indices of Mitosis in the Cells of the Root Meristem Under the Effect of Cosmic Rays

Orig Pub : Cescol. biol., 1957, 6, No 3, 222-226

Abstract : Discovered are statistically reliable data on the decrease of the mitotic index in the cells of the root meristem of the plants *Hortemum distichum* var. *nutans* which were subjected to cosmic irradiation in Tatra as compared with control plants in Prague. difference between the effect of soft and hard irradiation was noted.

Card 1/1

SISNEV, V.

Increase the efficiency of educational work conducted by trade unions
in every way possible. Sov. profsoiuzy 16 no.21:17-20 N '60.
(MIRA 13:10)

1. Zavduyushchiy kul'turno-massovym otdelom Vsesoyuznogo tsentral'nogo
soveta profsoyuzov. (Communist education) (Trade unions)

SISNEV, V.

Improve the ideological and political level of club work.
Sov. profsoiuzy 17 no.14:10-12 J1 '61. (MIRA 14:7)

1. Zaveduyushchiy kul'turno-massovym otdelom Vsesoyuznogo tsentral'nogo soveta professional'nykh soyuzov.
(Community centers)

L 18283-63

EPA(b)/EWI(I)/BDS/ES(v)

AEDC/AFPTC/ASD/AFMOC/APGC

Pd-4/Pe-4

Y/0001/63/000/006/0995/0999

ACCESSION NR: AP3001949

66
65

AUTHOR: Sisojev, Vaevolod (Dr. of Engineering, Associate Member)

TITLE: Determination of the shape of the working chamber of a transonic aerodynamic tunnel | Report of the Sixth Congress of Theoretical and Applied Mechanics held in Split from 4 to 10 June 1962

SOURCE: Tehnika, no. 6, 1963, 995-999

TOPIC TAGS: wind tunnel, flow line calculation

ABSTRACT: The author tried to find a remedy for blocking encountered in transonic wind tunnels by studying the determination of flow surfaces. The method of R. Legendre (La recherche aeronautique No. 50, 1956) involves a complicated mathematical apparatus and lengthy computations. A simplified method is devised based on the approach developed by S. Pivko (Saopstenja Vazduhoplovnotehnickog instituta VS-045, Beograd 1953). If an elongated thin body moves through an infinite medium with a velocity V_0 and a small

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L 18283-63

ACCESSION NR: AP3001949

inclination α , one can assume a plane potential flow of velocity $(V_0) = (V_0)$ in the plane perpendicular to the body axis. The flow lines for a thin foil can then be obtained from a simplified Formula 21 of Enclosure 1, with K defined by Formula 12, and approximately given by Formula 15 of Enclosure 1 and other symbols read off Fig. 2 of Enclosure 2. The introduction of an actual model, as shown crosshatched on Fig. 2, does not alter the flow lines outside a given flow line K_{sr} if the model outline follows such a flow line. Consequently, to prevent the blocking due to the change in free cross section within the tunnel one must keep the free cross section between the contour of the model and the outer contour of the tunnel constant, and this should be achieved by changing the cross section only between the two symmetric K_{sr} flow lines on both sides of the axis (Fig. 2). If the model cross section for a particular value of x is denoted by $A_{(mk)}$, one must introduce a channel in the wall defined by Formula 24 of Enclosure 1 at the top and bottom of the tunnel. Taking up the example of an elliptical tunnel with half axes p and q , the quantity K is given by Formula 38 of Enclosure 1 and leads to Formula 40 of Enclosure 3, which is now valid for all flow lines at points on the wall of the tunnel. The width y_p of the wall channel is given by Formula 43 of Enclosure 3 which is independent of K and, consequently, independent of α and V_0 and can be used for

Card

2/83

L 18283-63

ACCESSION NR: AP3001949

different inclinations and velocities. In practice, the wall channels should be built according to Fig. 3 of Enclosure 3 and since this cross-sectional shape is quite close to the original ellipse, all approximate formulas retain their validity. Although the above calculations have not been experimentally checked, the author surmises that similar calculations were utilized for the Modane wind tunnel (S. Schneider: La recherche aeronautique No. 72, 1959). Orig. art. has 3 figures and 47 formulas.

ASSOCIATION: Vazduhoplovnotehnicki institut Belgrade-Zarkovo (Aerotechnical Institute)

SUBMITTED: 00

DATE ACQ: 28 Jun 63

ENCL: 03 00

SUB CODE: AI

NO REF SOV: 000

OTHER: 003

Card

3/63

SISOJEVIC, P.

SISOJEVIC, P.

Yugoslavia (430)

Science

A contribution to the knowledge on nests of the *Lymantria dispar* L.
p. 197. ZBORNIK RADOVA, Vol. 2, no. 1, 1950

East European Accessions List, Library of Congress, Vol. 1, no. 14,
Dec 1952, UNCLASSIFIED.

STECHEV, V.

Problems of equipment of aerodynamic tests. p. 1121. TEHNKA
(Savaz inženjera i tehnicara Jugoslavije) Beograd. Vol. 11,
no. 8, 1956.

SOURCE: East Europe Accession List (EEAL),
Library of Congress, Vol. 5, no. 11, Nov. 1956

elastic line of a helicopter's rotor blades in revolving without
lifting. p. 63. *IZVJEŠTAJI*. Srpska akademija nauka. Odeljenje
tehnickih nauka. GLAS. Beograd. Vol. no. 220, 1956.

SOURCE: East European Accessions List, (EEAL), Library of Congress,
Vol. 5, no. 12, December 1956

54.4300

S/124/62/000/004/013/030
D251/D301

AUTHOR: Sisojev, V.

TITLE: The velocity field in a flow of ideal compressible fluid in the collector of an aerodynamic tunnel

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 4, 1962, 50, abstract 4B313 (Glas. Srpska AN, 1959, v. 237, 25-39)

TEXT: An approximation method is proposed for constructing the velocity field in an axisymmetric flow of compressible fluid at high subsonic velocities. The velocity field for an incompressible fluid is first constructed, and hence the magnitude of the velocity is calculated, observed under conditions of the preservation and absence of vortices. 5 references. [Abstracter's note: Complete translation.]

VB

Card 1/1

SISOYAN, G. A.

PA47T27

USSR/**Electricity**
Thermoelectricity
Training

Mar 1948

"Scientific and Technical Problems of Industrial
Electrothermics," G. A. Sisoyan, Dr Tech Sci, Gruzin
Polytech Inst imeni Kirov, 5 pp

"Elektrichestvo" No 3

Electrothermics one of newest additions to contem-
porary industry. Electrothermic factories have
sprung up in numerous regions in the USSR. At
present, program being organized to train personnel
to operate these new factories.

47T27

SISOYAN, G. A., PROF

PA 40/49T36

USSR/Engineering
Furnaces, Electric
Smelters

Feb 49

"All-Union Scientific and Technical Conference on
Electric Ore-Smelting Furnaces," Prof G. A. Sisoyan,
Dr Tech Sci, 1 p

"Elektrichestvo" No 2

Conference was held in Yerevan toward end of 1948.
About 150 scientists and manufacturers attended.
Twenty-two reports were submitted, including: L. I.
Aronov's "Technical Problems of Ore-Smelting Fur-
naces in the USSR," G. A. Sisoyan's "Optimum Power

40/49T36

USSR/Engineering (Contd)

Feb 49

and Productivity of Ore-Smelting Furnaces," and
A. D. Svehchanskiy's "New Regulating Systems for
Electric Furnaces and the Choice of Automatic
Devices for Ore-Smelting Furnaces." Aronov, in
the first report, points out that 14% of all
power developed by power plants is used in
electrothermal production.

40/49T36

SISOYAN, G. A.

PA 3/50T20

USSR/Engineering - Furnaces, Electric
Furnaces, Closed Jul 49

"Review of G. I. Eshst, G. V. Derzhavits, A. D. Sverchanskii, and M. Ya. Smelyanski's Book, 'Industrial Electric Furnaces,'" Prof G. A. Sisoyan Dr Tech Sci, Polytech Inst Imeni Kirov Georgian SSR, 2 pp

"Elektrichestvo" No 7

Book, first to cover all types of electric furnaces adequately, examines problems of design, construction and operation of resistance, induction and arc furnaces. Reviewer points out authors' failure

3/50T20

USSR/Engineering - Furnaces, Electric Jul 49
(Contd)

to give sufficient space to closed-type furnaces, although they are the economical-type. Notes that in the future most operational furnaces will be converted to closed type. Deplores failure to cite achievements of Soviet scientists in development of these furnaces.

3/50T20

SISOYAN, G. A., Prof

PA 167T37

USSR/Electricity - Furnaces, Electric Sep 50
Power Systems

"An Electric Furnace as a Consumer-Regulator of
a Power System," Prof G. A. Sisoyan, Dr Tech
Sci, Georgian Polytech Inst imeni Kirov

"Elektrichestvo" No 9, pp 16-23

Considers advisability of using large ore-
smelting electric furnaces to improve load
graph in electric power stations.

167T37

SISOYAN, G. A.

Electric Furnaces

"Electric melting furnaces in ferrous metallurgy."
H. V. Okorokov. Reviewed by G.A.Sisoyan. Elektrichestvo
No. 3, 1952.
Doktor Tekhn. Nauk, Prof. Gruzinskiy Politekhnicheskiy
Institut im. Kurova

SO: Monthly List of Russian Accessions, Library of Congress, June 1952 ~~1253~~ ¹²⁵³ Uncl.

SISOYAN, G. A.

Engineers; Didebulidze, Aleksandr Iosifovich,
1882-1951

A.I. Didebulidze; on the occasion of the anniversary
of his death. Elektrichestvo No. 4, 1952.

SO: Monthly List of Russian Accessions, Library of Congress, August 1952 ~~1953~~, Uncl.

SISOYAN, G. A., Prof.

USSR/Electricity - Operator Calculus
Engineering Education

Jul 52

PA 237737

"Discussion: On V. Yu. Lomonosov's Article
'Operator Calculus In Electrical Engineering
Education,'" Prof G. A. Sisoyan, Dr Tech Sci,
Georgian Polytech Inst imeni Kirov; Prof G. S.
Aronzon, Dr Tech Sci, Moscow Automobile Highway
Inst; Cand Tech Sci M. Yu. Shukhatovich, Inst
of Mining; Prof A. Ya. Berger, Leningrad Elec
Eng Inst of Commun; Doc A. A. Yanko-Trintskiy,
Cand Tech Sci, Ural Polytech Inst

"Elektrichestvo" No 7, pp 87-91

237737

Above authors, continuing discussion of Lomonosov's
article (article and 1st part of discussion ap-
peared in "Elektrichestvo," No 1, 1952), generally
disagree with Lomonosov's position that operator
calculus is unimportant in electrical engineering
education.

237737

SISOYAN G.A.

KHACHATRYAN, A.S.; ABADZHEV, Yu.G.; ZOLOTAREV, T.L.; KONDAKHCHAN, V.S.;
ATABEKOV, G.I.; GABASHVILI, N.V.; SISOYAN, G.A.; MAKHARADZE, G.K.;
VORONIN, A.V.; GORTINSKIY, S.M.; KARSAULIDZE, A.N.

Professor A.IA Ter-Khachaturov. A.S.Khachatrian and others.
Elektrichestvo no.8:90 Ag '54. (MIRA 7:8)
(Ter-Khachaturov, Artemii IAKovlevich, 1884-)

Sisoyan, G. A.

AID P - 1484

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 35/36

Authors : Svenchanskiy, A. D., Kand. of Tech. Sci., Dotsent and Smelyanskiy, M. Ya., Dotsent

Title : Book review: G. A. Sisoyan. Electric Arc in Electric Arc-Furnaces. Published by the Academy of Sciences of the Armenian SSR. Yerevan, 1954. 266 pp.

Periodical : Elektrichestvo, 2, 87-88, F 1955

Abstract : The book is written for the workers of scientific research institutes and for the engineers of plants utilizing arc furnaces. It may also be used as a training manual by students of institutes of higher education and those training in the field of electric furnaces. The reviewers give a favorable opinion of the book.

AID P - 1484

Elektrichestvo, 2, 87-88, F 1955

Card 2/2 Pub. 27 - 35/36

Institution: Chair of Electrothermal Installations of the
Moscow Power Engineering Institute im Molotov and
"Tsentrpromelektropech' "

Submitted : No date

SISOYAN, G.A., doktor tekhnicheskikh nauk, professor.

Selection of voltage for electric ore furnaces. Elektrichestvo no.4:
37-42 Ap '56. (MIRA 9:7)

1.Gruzinskiy politekhnicheskii institut imeni Kirova.
(Electric furnaces)

SOV/137-58-9-18384

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 25 (USSR)

AUTHOR: ~~Sisoyan, G.P.~~

TITLE: The Electric Field in the Bath of Single-phase and Three-phase Smelting Furnace (Elektricheskoye pole v vanne odnofaznoy i trekhfaznoy rudnotermicheskoy pechi)

PERIODICAL: Tr. Gruz. politekhn. in-t, 1957, Nr 5, (53), pp 107-122

ABSTRACT: None of the existing methods for the calculation of the parameters of the bath and the diameter of the electrodes (E) is rigorous and technically sound; they do not take into account the distribution of the current and its strength in the bath which establish the working conditions of the furnace (F). Investigations were conducted on models of F. Since the conducting medium was coke instead of the charge mixture, therefore, for the determination of the actual current distribution, the temperature coefficients of the electrical conductivity are necessary. In the model of the cylindrical single-phase F all the equipotential surfaces are cup-shaped, with the concavity pointing upward and are parallel to the walls of F. The current-density lines are perpendicular to all the surfaces of E and to the hearth bottom; those going from the top end are almost parallel and straight,

Card 1/3

SOV/137-58-9-18584

The Electric Field in the Bath (cont.)

those from the side surfaces are bent towards the bottom E. The current flows off the whole side surface of the E, but at the top end it is 2 - 2.5 times greater than above (at the charging opening itself) and at the top end it is the greater, the less charging mixture there is between it and the bottom. Within the limits permissible by technological considerations, variations in the diameter of E has almost no effect on the current. In round three-phase symmetrical F the electric field rotates within the triangle of decomposition and pulsates without it. In rectangular F (E are placed in a row) all of the electric field is of the pulsating type. The electric and magnetic fields are pre-established by currents of the charge-mixture-conductivity and induction currents; here, we have an instantaneous distribution of the field which varies cyclically in any point of the space, as well as an effective field which is independent of the time. The equipotential surfaces are three-dimensional. Under the top ends they lie in horizontal planes, at the borders they are bent and travel upward. Vertical planes of zero potential lie between adjacent E. The lines of the current going from one E to the next one are almost straight close to the axis of symmetry of the F; all the others are convex toward the walls. The current going to the central E flows only from the semi-cylinders of the end E facing it. From the outer semi-cylinders it flows only to the bottom in a star-shaped pattern, increasing from the charging to the end

Card 2/3

SOV/137-58-9-18384

The Electric Field in the Bath (cont.)

section of E. Only an insignificant portion of the current flows from the lower section of the central E onto the bottom (in a star-shaped pattern). The conclusions are applied to the whole bath in the absence of an arc or gas areas (of crucibles) under the E; in the presence thereof, they apply to the current distribution in the shunting layer of the charge mixture.

V. T.

1. Furnaces--Operation
2. Electrodes--Analysis
3. Code--Applications
4. Electric currents--Performance

Card 3/3

SVENCHANSKIY, A.D.; ARONOV, L.I.; SHEVTSOV, M.A.; MOLODOV, A.I.;
SUCHIL'NIKOV, S.I.; KHITRIK, S.I.; CHUYKO, N.M.; ZHERDEV, I.T.;
SISOYAN, G.A.; KOZLOV, V.S.; KULIKOVSKIY, L.F.; NOVIKOV, O.Ya.

Professor S.I. Tel'nyi. Elektrichestvo no.10:89 0 '60. (MIRA 14:9)
(Tel'nyi, Stepan Ivanovich, 1890-)

PHASE I BOOK EXPLOITATION

SOV/5423

Sisoyan, Grigoriy Artem'yevich

Elektricheskaya duga v elektricheskoy pechi (Electric Arc in the Electric Furnace) 2d ed., rev. and enl. Moscow, Metallurgizdat, 1961. 414 p. Errata slip inserted. 3,700 copies printed.

Ed.: B. V. Zolotov; Ed. of Publishing House: T. I. Kiseleva; Tech. Ed.: P. G. Islent'yeva.

PURPOSE: This book is intended for staff members of scientific research institutes and technical personnel in industry. It may also be useful to students and aspirants concerned with electric furnaces.

COVERAGE: The book contains a systematic presentation of the results of investigations on arcing in electric furnaces. The general theory of arcing, special features of the high-power low-voltage arc, and investigations of the arc of a high-power electric furnace during the manufacture of electric steel, ferrosilicon, manganese

Card 1/9

Electric Arc (Cont.)

SOV/5423

silicon, and calcium carbide are discussed. The first edition was published in 1954 under the title "Electric Arc in the Smelting Furnace". In 1958 it was the subject of a discussion at a joint session of the Nauchno-tekhnicheskoye obshchestvo chernoy metallurgii (NTO ChM)--Scientific and Technical Society for Ferrous Metallurgy--and the Moskovskoye otdeleniye Nauchno-tekhnicheskogo obshchestva energetikov (MONTOE)--Moscow Section of the Scientific and Technical Society of Power Engineers. There it was decided to issue this second edition. In the preface to the edition the author thanks V. A. Bogolyubov and A. D. Svenchanskiy for organizing the discussion of the book. There are 49 references: 45 Soviet (including 1 translation), 2 French, and 2 German.

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SISOYAN, G.A., doktor tekhn.nauk, prof.

Current distribution in the tub of an ore-smelting furnace.
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1. Gruzinskiy politekhnicheskiy institut.
(Smelting furnaces) (Electric furnaces)

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[Power regularities in electric charge resistance
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AN KazSSR, 1963. 249 p. (MIRA 16:8)
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Structure of a course in "Theoretical principles of electrical engineering." Elektrichestvo no.5:79-81 My '63. (MIRA 16:7)

- 1, Gruzinskiy politekhnicheskiy institut imeni Lenina.
(Electric engineering—Study and teaching)

STERN, Ya., Prof.

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Editorial articles on pressing problems should be published systematically,
Elektrichesvo No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress. May 1953. Unclassified.

SISOYEV, A.F.

FILATOV, V.P.; SISOYEV, A.F., st.nauk.spivr.

Biological activity of hyaluronic acid from the vitreous humor.
Medych.zhur. 20 no.5:19-29 '50. (MIRA 11:1)

1. Z Ukrains'kogo eksperimental'nogo institut ochnikh khvarob
in. akad. V.P.Filatova (direktor - diyshniy chlen AN URSR, Geroy
Sotsialistichnoi Pratsi V.P.Filatov)
(HYALURONIC ACID) (VITREOUS HUMOR)

EXCERPTA MEDICA Sec.12 Vol.10/12 Ophthalmology Dec 56

SISOYEV, F.F.

1853. SISOYEFF F. F. Med. Inst., Izheff. Prowazek corpuscles in trachoma and their epidemiological significance (Russian text) VESTN. OFTAL. 1956, 2 (3-9)

The investigations were carried on in Udmurtia, where trachoma was epidemic. Conjunctival scrapings from 2933 persons were examined as to the presence of Prowazek-Halberstaedter corpuscles. Out of these persons 53 were suspected to suffer from trachoma and in 3.8% of them inclusion bodies were found. There were 13 patients in the 1st stage of trachoma (inclusion bodies in 23% of them); 19 patients in the 2nd stage (16.5%); 491 in the 3rd stage (9.49%); 795 in the 4th stage (4%). Further there were 151 persons suffering from catarrhal conjunctivitis (corpuscles in 0.7% of them), 114 cases of follicular conjunctivitis (1.8%) and 1297 clinically healthy persons (1%). Out of the persons classified in the 4th stage of trachoma, 116 were submitted to slit lamp examination. In 49 out of these some smouldering of the disease was found. Prowazek's corpuscles were found among these 49 as frequently as among the other 67 (out of the 116). Out of 1297 clinically healthy persons 13 were found to carry Prowazek's corpuscles. Slit lamp examination in these 13 persons confirmed the diagnosis of healthy conjunctiva. The author starts from the supposition that the Prowazek's corpuscles are identical with the trachoma virus. The persons with healed trachoma and those with healthy eyes in whom corpuscles are found are considered by him as germ carriers. These virus carriers may be subject to unexpected recurrences of trachoma or may be the cause of an outbreak of the disease among healthy persons. The fact of the existence of virus carriers necessitates inspection of cured persons and measures against recurrences for a much longer period than is generally accepted.

De Haas - Arnhem (XII, 17*)

SISOYEV, M. [Sysoiev, M.]

We are lowering construction costs. Sil'. bud. 11 no.1:10-11 Ja '61.
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1. Nachal'nik otdela kapital'nogo stroitel'stva Dnepropetrovskogo
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(Ukraine--Construction industry--Costs) (Farm buildings)

SISOYEVA, M.V. [Sysoieva, M.V.], kand.med.nauk; SEMENOV, Ye.P. [Semenov,
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16-18 '60⁷ (MIRA 14:4)

1. Kafedra detskikh infektsionnykh bolezney (zav. - prof. M.M.
Bezsonova) Krymskogo meditsinskogo instituta im. I.V.Stalina
(direktor - dotsent S.I.Georgiyevskiy)
(POLIOMYELITIS) (THIAMINE)