On pressure-deformed ...

$$\sigma^{ik}_{(k)} = \frac{\Psi_{(ik)}}{\sqrt{g_{ii}g_{kk}}} \sum_{mnp}^{N} \left[A_{mnp} f^{ik}_{(1)} + B_{mnp} f^{ik}_{(2)} + C_{mnp} f^{ik}_{(3)}\right] \qquad (56)$$

In the system

$$\frac{\partial F_{31}}{\partial z} = \lambda_1 \qquad (44)$$

coefficients $F_{\gamma\beta}$ and free terms L_β depend on the pressured state of the shell; therefore, to solve it the method of elastic solutions will be used. For the first solution φ it was assumed that $\varphi(\sigma_i) = 0$; then $\alpha_1 = 1$, $\alpha_2 = \frac{2}{1+\nu}$, and $F_{\gamma\beta}$ and L_β are constants. For N=1 the system consists of 3 equations; for N=2

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27850
S/508/60/029/000/006/012
D225/D303

On pressure-deformed ...

it consists of 24 equations which are solved by Cramer's formulae. For N=n the system consists of m equations, solved in computers. There are 2 figures and 2 Soviet-bloc references.

SUBMITTED: August 10, 1959

Card 13/14

30389

10.6000 1327 2607 1103 4512 S/145/61/000/007/003/009
D221/D301

AUTHOR: Ionov, V.N., Candidate of Technical Sciences

TITLE: Calculating stresses in an ogive shell during penetration

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 7, 1961, 19-26

TEXT: The stresses of an ogive shell at its penetration into a medium of known properties are analyzed. It is assumed that the deformations of the shell are small, the material is isotropic, and its stress-strain diagram is known; (Hooke's law within the limit of elasticity and the laws of the theory of small elastic and plastic deformations beyond the elastic limit). The problem is quasi-static because the speeds of contact between the shell and the barrier are assumed to be below the critical speed. The system of external forces consists of gravity with the potential φ^*; the outside external pressure $P_2^{33} = P_2 \Theta_2(\theta) \Phi_2(\varphi)$ at z=h (Fig. 1). Internal pressure $P_1^{33} = P_1 \Theta_1(\theta) \Phi_1(\varphi)$ at z=h;

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the end pressure for $\Theta = \Theta_2$ is defined by Eq. (A),

$$P_2^{(11)} = -n \frac{G_{up} \sin \Theta_2}{4\pi r_o h} \Phi(\varphi) Z(z) \quad (A)$$

where $P_\gamma (\gamma = 1, 2)$ are the characteristics of the external and internal pressure; n is the coefficient of overloading, and G_{up} is the weight of the upper part of the structure. The geometry of the shell is specified by the radii of curvature of the mean surface R_1 and R_2. The variation limits of the coordinates are (B) $\Theta_1 \leq \Theta \leq \Theta_2$, $0 \leq \varphi \leq 2\pi$, and $-h \leq Z \leq h$, the thickness of shell being generally variable, $h = h(\Theta, \varphi)$. The stress tensor is $(\sigma) = (\sigma_o) + (\sigma_c)$, where (σ_o) is the principal tensor, and (σ_c) is the correction tensor. In consideration of the principal tensor, the generalized surface forces $Q_{(\gamma)}^{ik}$ are quoted, and the stress function of the principal tensor is sought

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Calculating stresses ...

after in the form Eq. (5)

$$\Pi_i^{(0)} = \frac{1}{2}(1-\cos\bar{\theta})\Phi_{in} + \frac{1}{2}(1+\cos\bar{z})F_{in} + \frac{1}{2}(1-\cos\bar{z})\Phi_{in}. \quad (5)$$

Each unknown term of the latter is determined from the boundary conditions on the surface and the ends of the shell. The correcting stress tensor must be obtained by solving an infinite system of algebraic equations.- linear within the elastic limit and non-linear beyond it. In the second case, one must use the method of successive approximations. A previous work of the author is referred to (Ref. 2: "Mashinostroyeniye" no.2, 1959) for calculating the coefficients. These calculations plus the solution of algebraic equations should be made with the aid of electronic computers, or by methods of numerical integration. There are 1 figure, 1 table and 2 Soviet-bloc references.

ASSOCIATION: MVTU im. N.E. Baumana (MVTU im. N.E. Bauman)

SUBMITTED: September 5, 1960

Card 3/4

10,6000 1327, 2607 1103

32238
S/145/61/000/004/001/008
D221/D301

AUTHOR: Ionov, V.N., Candidate of Physico-Mathematical Sciences, Docent

TITLE: Calculating stresses in spherical and almost spherical bodies

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 4, 1961, 90 - 100

TEXT: Nearly spherical bodies are defined as bodies of revolution whose generatrix is a circular arc with a displaced center. The author introduces a system of spherical coordinates $x^1 = \theta$, $x^2 = \varphi$ and $x^3 = r$. The metric tensor has $g_{11} = r^2$, $g_{22} = r^2\sin^2\varphi$, and $g_{33} = 1$. The stress tensor σ is constructed as a sum $(\sigma) = (\sigma_b) + (\sigma_c)$, where (σ_b) is the basic stress tensor; (σ_c) is the correcting stress tensor. The author obtains

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$$-r^2\frac{\partial^2 F_{11}}{\partial r^2} + 2r\frac{\partial F_{11}}{\partial r} - 2F_{11} = \frac{1}{\cos^2\theta_1}\left(\frac{\partial^2 F_{11}}{\partial \varphi^2} - B_1\right), \qquad (6)$$

Calculating stresses in ...

where

$$B_1 = -r^3 \sin^2\theta_1 \left\{ -r^4 \frac{\partial^2 Q^{12}_{(1)}}{\partial \varphi^2} + \frac{\partial}{\partial r}\left(r^4 \frac{\partial Q_{(1)}{}^{13}}{\partial \varphi}\right) + \operatorname{ctg}\theta_1 \left[r^4 Q_{(1)}{}^{11} + \right.\right.$$

$$\left.\left. + 2\sin\theta_1 \cos\theta_1 \frac{\partial}{\partial r}\left(r^4 \int_0^{\varphi} Q_{(1)}{}^{13} d\varphi\right)\right]\right\}. \qquad (7)$$

The above can be solved by the method of eigenfunctions if certain conditions are satisfied. The eigenfunctions are

$$R_n = \frac{1}{2\Lambda_n}\left[(2+\Lambda_n)\rho^{1-\Lambda_n} - (2-\Lambda_n)\rho^{1+\Lambda_n}\right]. \qquad (17)$$

where Λ_n are roots of the transcendental equation

$$\frac{(\rho_1+1-\Lambda)(2-\Lambda)}{(\rho_1+1+\Lambda)(2+\Lambda)} = \rho_1 \frac{1}{2\Lambda}. \qquad (16)$$

p being a dimensionless radius. The final form of F_{11} is derived, and the boundary conditions are met if the generalized surface for-

Card 2/3

ces, $Q^{ik}_{(\gamma)}$ are self-balanced. F_{12} is determined by the same method. Other functions F_{ik} are obtained as series expansions. The functions φ_{ik} are obtained from the same formulae as F_{ik} by change of an index. If $Q^{ik}_{(\gamma)}$ does not meet the conditions of self-balance, it is necessary to separate the self-balancing parts, and apply the above solution. The stress functions of the basic tensor can be found from F_{ik} and φ_{ik} with the aid of well-known formulae. The construction of σ_k has been considered in a previous paper. The use of computers is advisable for the calculations. There are 3 Soviet-bloc references.

ASSOCIATION: MVTU im. N.E. Baumana (MVTU im. N.E. Bauman)

SUBMITTED: February 5, 1960

IONOV, V.N., kand.tekhn.nauk

Calculating stresses in an ogive shell during the penetration into the ground. Izv.vys.ucheb.zav.; mashinostr. no.7:19-26 '61.
(MIRA 14:9)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Elastic plates and shells)

BABULIN, Nikolay Alekseyevich; BARANOVSKIY, M.A., nauchn. red.; KONCHA, F.F., red.; IONOV, V.N., red.

[Construction and interpretation of working drawings for the manufacture of machinery] Postroenie i chtenie mashinostroitel'nykh rabochikh chertezhei. Izd.2., perer. i dop. Moskva, Vysshaia shkola, 1964. 275 p. (MIRA 18:1)

FRUMIN, Isidor Il'ich; YUZVENKO, Yuriy Arsen'yevich; LEYNACHUK, Yevgeniy Ivanovich; CHEKANOV, A.A., nauchn. red.; GORYUNOVA, L.K., red.; IONOV, V.N., red.

[Technology of mechanized metal deposition] Tekhnologiia mekhanizirovannoi naplavki. Moskva, Vysshaia shkola, 1964. 303 p. (MIRA 18:1)

L 22581-65
ACCESSION NR: AP5002236 S/0140/64/000/006/0059/0066

AUTHORS: Ionov, V. N. (Moscow); Vvedenskiy, G. A. (Moscow)

TITLE: On possible forms of general solution of equilibrium equations with curvilinear coordinates

SOURCE: IVUZ. Matematika, no. 6, 1964, 59-66

TOPIC TAGS: stress tensor, tensor analysis, elasticity theory, curvilinear coordinate

ABSTRACT: A generalized solution for the homogeneous equilibrium equations

$$\nabla_k \sigma^{ik} = 0, \qquad (1)$$

in the theory of elasticity and plasticity is sought in arbitrary curvilinear coordinate systems. Following N. A. Kil'chevskiy (Elementy analiticheskoy mekhaniki obolochek. Ch. 1. Osnovy analiticheskoy mekhaniki. Gostekhizdat, M., 1954), the generalized expression for σ is given by

$$\sigma^{ik} = \left(g^{il}g^{km} - \frac{1}{2}g^{ik}g^{lm}\right)g^{np}\left(\frac{1}{2}\tilde{R}_{lmnp} + N_{lmnp}\right); \qquad (2)$$

where $\tilde{R}$ is related to the contravariant components of Einstein's tensor and is a function of Π_{ik} the stress functions. Also,

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ACCESSION NR: AP5002236

$$N_{\cdots} = \text{[illegible]} \Pi_{ij}. \quad (3)$$

The expression for σ is shown to satisfy identically the equilibrium equation (1). As examples, the σ^{ik} are calculated in cylindrical and spherical coordinates. The results show that, out of 19 possible forms, the solution containing stress functions Π_{23}, Π_{11} and Π_{12} is physically meaningless. The same thing can be said about equilibrium equations for shells, both with zero and nonzero Gaussian curvatures. Here, one solution out of twenty possible forms, which contains stress functions Π_{23}, Π_{22} and Π_{12}, is meaningless. To remove the singularities occuring at $r = 0$ for the cylindrical geometry and $r = 0$, $\theta = 0$, π, $\ldots\pi$ for the spherical geometry, the stress functions are represented by:

$$\Pi_{11} = r^{\alpha} f_{11}, \quad \Pi_{22} = r^{\beta} f_{22}, \quad \Pi_{33} = r^{\gamma} f_{33};$$
$$\Pi_{12} = r^{\delta} f_{12}, \quad \Pi_{13} = r^{\varepsilon} f_{13}, \quad \Pi_{23} = r^{\eta} f_{23} \quad (4)$$

where the coefficients α, β, γ, δ, ε, η, are determined from conditions of no negative powers in the solution of the variable r. In the final result, assuming non-vanishing values for three stress functions f_{ik}, all 19 solutions are obtained in physically meaningful forms. Orig. art. has: 26 equations.

Card 2/3

L 22581-65

ACCESSION NR: AP5002236

ASSOCIATION: none

SUBMITTED: 14Jun63 ENCL: 00 SUB CODE: MA, ME

NO REF SOV: 005 OTHER: 000

Card 3/3

FAYERMAN, Aron Iudovich; ZVEGINTSEVA, K.V., inzh., retsenzent;
BREYTMAN, M.M., nauchn. red.; IONOV, V.N., red.

[Economics and the organization of welding production]
Ekonomika i organizatsiia svarochnogo proizvodstva.
Moskva, Vysshaia shkola, 1965. 98 p. (MIRA 18:7)

BASTOV, Viktor Fedorovich; IVANOV, Rodion Prokof'yevich; IPPOLITOV, Anatoliy Georgiyevich; MAREM'YANICHEV, S.N.; MOSOLOV, K.V.; IONOV, V.N., red.

[Teaching of the fundamentals of production mechanization and automation] Prepodavanie osnov mekhanizatsii i avtomatizatsii proizvodstva. Moskva, Vysshaia shkola, 1965. 157 p. (MIRA 18:7)

IONOV, V.N., doktor tekhn. nauk

Stresses in a cone-shaped body under static loading.
Izv. vys. ucheb. zav.; mashinostr. no.7:49-57 '65.
(MIRA 18:12)

1. Submitted June 4, 1963.

YEMEL'YANOV, Leonid Vasil'yevich; ZHIVOTINSKIY, Lev Abramovich; GITLEVICH, Arlen Davidovich; TYURIN, V.F., nauchnyy red.; IONOV, V.N., red.; DORODNOVA, L.A., tekhn. red.

[Auxiliary equipment for welding; an album] Vspomogatel'noe oborudovanie dlia svarki; al'bom. Moskva, Proftekhizdat, 1962. 123p. (MIRA 16:1)

(Welding--Equipment and supplies)

ZHEBIN, Moisey Isaakovich; SHAMIRGON, S.A., nauchnyy red.; IONOV, V.N., red.; GLAZKOVA, Ye.I., red.; DORODNOVA, L.A., tekhn. red.

[Molder employed in manual molding]Formovshchik ruchnoi formovki. Moskva, Proftekhizdat, 1962. 294 p. (MIRA 16:1)
(Molding (Founding))

IONOV, V. P.

Name : IONOV, V. P.

Title : Candidate of Technical Sciences

Affiliation : Member, Editorial Board, "Problems of Rocket Technology"

Remarks : N. A. Akkerman, N. I. Biryukov, V. T. Vlasov, V. P. Ionov, Ye. V. Kudryavtsev, B. I. Nazarov, A. A. Orlov, V. A. Popov, and Yu. M. Shaulov are members of the editorial board of the periodical "Problemy Raketnoy Tekhniki" ("Problems of Rocket Technology"), published by the Foreign Literature Publishing House in Moscow. The periodical is a collection of translations and abstracts of foreign scientific articles and monographs.

Source : P: Problemy Raketnoy Tekhniki, No. 1, January 1958, p. 2

6.

KUDRYAVTSEV, Ye.V., doktor tekhn.nauk, red.; IONOV, V.P., kand.fiz.-mat. nauk, red.; OSOKINA, V.I., red.; RYBKINA, V.P., tekhn.red.

[Problems of high-speed flights] Problemy poleta s bol'shimi skorostiami; sbornik statei. Moskva, Izd-vo inostr.lit-ry, 1960. 173 p.
(Aerodynamics, Supersonic) (MIRA 14:3)

Ionov, V.P.

PHASE I BOOK EXPLOITATION SOV/4467

Predvoditelev, Aleksandr Savvich, Yevgeniy Vladimirovich Stupochenko, Viktor Pavlovich Ionov, Aleksandr Sergeyevich Pleshanov, Igor' Borisovich Rozhdestvenskiy, and Yevgeniy Vasil'yevich Samuylov

Termodinamicheskiye funktsii vozdukha dlya temperatur ot 1000 do 12,000° K i davleniy ot 0,001 do 1000 atm (grafiki funktsiy) (Thermodynamic Functions of the Air for Temperatures From 1,000 to 12,000° K. and Pressures From 0.001 to 1,000 atm. /Graphs of the Functions/) Moscow, Izd-vo AN SSSR, 1960. 53 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Energeticheskiy institut imeni G.M. Krzhizhanovskogo; Ministerstvo vysshego obrazovaniya SSSR; Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Fizicheskiy fakul'tet.

Resp. Ed.: A.S. Predvoditelev, Corresponding Member, Academy of Sciences USSR.

PURPOSE: This book is intended for scientists and engineers concerned with thermodynamic air functions.

COVERAGE: The publication contains diagrams of thermodynamic air functions plotted as sets of curves in relation to temperature and pressure, where pressure has been taken as parameter. In addition, an approximation method for calculation of the straight shock is described. Universal curves, representing the dependence of the ratio of pressures and enthalpies along the shock on the M number, are given. The diagrams have been plotted using exact data computed by means of an electronic computer at the Vychislitel'nyy tsentr Akademii nauk SSSR (Computing Center, Academy of Sciences USSR). The work presented in this publication was done by scientific workers of the Laboratory of Combustion Physics at the Energeticheskiy institut AN SSSR (Power Engineering Institute, Academy of Sciences USSR), and the Department of Molecular Physics of the Division of Physics at MGU (Moscow State University) under the general direction of Professor A.S. Predvoditelev, Corresponding Member of the Academy of Sciences USSR. There are 3 references, all Soviet.

TABLE OF CONTENTS:

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IONOV, V. P., and KON'KOV, A. A.

"Spectral Properties of Some Gases at High Temperatures and Pressures."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

KUDRYAVTSEV, Ye.V., doktor tekhn. nauk, red.; IONOV, V.P., kand. fiz.-mat. nauk, red.; VISKOVA, M., red.; DOTSENKO, V., tekhn. red.; IOVLEVA, N., tekhn. red.

[Mobile plasma] Dvizhushchaiasia plazma; sbornik perevodov. Moskva, Izd-vo inostr. lit-ry, 1961. 612 p. (MIRA 15:1)
(Plasma (Ionized gases))

AUTHOR: Ionov, V. P.

S/262/62/000/004/009/024
I014/I252

TITLE: Determination of gas flow parameters at the surface of a cone moving at high speed, with gas dissociation taken into account (approximate methods)

PERIODICAL: Referativnyy Zhurnal, Silovyye ustanovki, no. 4, 1962, 37, abstract 42.4.237 "Fiz. gazodinamika i teploobmen' M." AN SSSR, 1961, 25–30

TEXT: It is assumed that the flow is isentropic and axially symmetrical. The problem is solved on the basis of equations of motion and continuity, as well as of the energy and the state of the gas. An approximate solution was obtained on the assumption that at high flight speeds the conic shock wave approaches the surface of a cone while flow parameters vary insignificantly inside the gas layer between the shock wave and cone surface. The problem is simplified by using an approximate adiabatic curve equation for a dissociated gas. Comparison of the exact and approximate methods for $M = 3.6–8.7$ showed good apreement. A method was also studied based on the assumption of non-compressible liquid flow in the zone between the conical shock wave and the cone surface.

[Abstracter's note: Complete translation.]

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S/081/61/000/024/003/086
B138/B102

AUTHORS: Ionov, V. P., Kon'kov, A. A.

TITLE: Radiation spectra of diatomic gases under adiabatic compression

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 15, abstract 24B83 (Sb. "Fiz. gazodinamika i teploobmen". M., AN SSSR, 1961, 46 - 50)

TEXT: Emission spectra have been obtained, on an adiabatic compression apparatus, for air, O_2, N_2, H_2, Ar, and He. The spectra of air and the diatomic gases are continuous. The radiation of air in the 5500 - 6700 Å range temperatures between 2000 and 3500°K and pressures between 100 and 500 atm can be regarded as gray-body radiation. In these conditions the spectra from single-atomic gases are line spectra with a slight continuous background. [Abstracter's note: Complete translation.]

Card 1/1

23871
B/186/61/003/001/004/020
A051/A129

21,3200

AUTHORS: Samoylov, O.Ya., Tikhomirov, V.I., Ionov, V.P., Kuznetsova, A.A.

TITLE: The relationship between the effectiveness of the salting-out agent and the hydration of the salting-out ion

PERIODICAL: Radiokhimiya, v 3, no 1, 1961, 14-18

TEXT: In the present work the authors have investigated the relationship between the effectiveness of the salting-out agent and the hydration of the salting-out ion, using the qualitative theory developed in Ref 1. It is seen that the stronger the salting-out cation is hydrated, the more effective the given salting-out agent should be in relation to it, i.e., the higher should be the value of its $\Delta E_{\text{salting-out}}$ (a decrease in the energy of activation of the water molecule extraction from the closest surroundings of the extracted ion). Thus,

$$\Delta E_{\text{salting-out}} \approx \frac{k}{\beta_i^3} \quad (3),$$

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The relationship between the effectiveness ...

where k is a coefficient depending on the cation charge of the salting-out agent, dipole moment of the water molecule and characteristics of the water solution, and S_i - the average (effective) distance between the salting-out cation and the cation of the salting-out agent. With an increase in the hydration of the salting-out ion, the value of $E_{salting\text{-}out}$ related to the action of a certain salting-out agent on it increases: (4)

$$(\Delta E_{salt.-out})_i > (\Delta E_{salt.-out})_j \quad \text{or} \quad (\Delta E_{salt.-out})_i = \gamma (\Delta E_{salt.-out})_j$$

where the coefficient $\gamma > 1$. For various salting-out agents it is assumed that the values of the coefficients are about equal, then:

$$(\Delta E^s_{salt.-out})_i = \gamma (\Delta E^s_{salt.-out})_j \quad (5)$$

where s = 1,2,3, corresponding to the different salting-out agents. The authors investigate the salting-out ions i and j, whereby the i-ion is characterized by a higher hydration than the j-ion. It is established that the relationship of $\Delta E_{salt.-out}$ to the hydration of the salting-out ion

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The relationship between the effectiveness...

brings about the equation:

$$\left(\frac{a^1}{a^2}\right)_i > \left(\frac{a^1}{a^2}\right)_j \qquad (9)$$

(where a is the distribution coefficient [Ref 17]). It is confirmed experimentally by investigating the extraction of uranyl and thorium with tributylphosphate from water solutions containing magnesium, calcium and strontium nitrates. Equation 9 indicates that with a strengthening of the hydration of the salting-out ion the relative increase in the distribution coefficient grows, determined by the growth of the effectiveness of the salting-out agent. Table 1 lists the determined values of the distribution coefficients of uranyl and thorium, and table 2 lists the ratios of the distribution coefficients for uranyl and thorium in the presence of various salting-out agents from a group of magnesium, calcium and strontium nitrates. The ratios taken are that of the distribution coefficients in the presence of a more effective salting-out agent to the value of the distribution coefficient in the presence of a less effective salting-out agent. The data of table 2 show that these ratios for thorium are greater than for uranyl. Since thorium is

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The relationship between the effectiveness...

hydrated more strongly in aqueous solutions than uranyl, it is concluded that the experimental results confirm the validity of equation (9). There are 2 tables, 9 formulae and 6 references: 4 Soviet-bloc, 2 non-Soviet-bloc.

Card 4/6

34331

S/124/62/000/002/006/014
D234/D302

26.2160

AUTHOR: Ionov, V.P.

TITLE: Supersonic flows in profile nozzles in the regime of overexpansion during variations of the Reynolds number of the stream

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 2, 1962, 34, abstract 2B204 (V Sb. Gazodinamika i fiz. goreniya. M., AN SSSR, 1959, 84-87)

TEXT: Investigation of the structure of the stream in regimes of overexpansion was carried out in plane supersonic nozzles with transparent walls with the aid of Tepler's instrument. Two nozzles with M = 2.03 and M = 1.55 were tested. By varying the density of the jet stream, the number R was changed from 0.25 to 2.5 x 10^5. It is shown that in the case of laminar boundary layer (small absolute pressures of the stream) the oblique discontinuity of condensations at the wall of the nozzle branches off into a complex system, while in case of a turbulent boundary layer the oblique discontinuity ends at the wall by a λ-shaped

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S/124/62/000/002/006/014
D234/D302

Supersonic flows in ...

discontinuity with one 'leg'. [Abstracter's note: Complete translation].

Card 2/2

S/862/62/001/000/011/012
E032/E314

AUTHORS: Kon'kov, A.A. and Ionov, V.P.

TITLE: Spectral characteristics of some gases at high temperatures and pressures

SOURCE: Teplo- i massoperenos. t. 1: Teplofizicheskiye kharakteristiki materialov i metody ikh opredeleniya. Ed. by A. V. Lykov and B. M. Smol'skiy. Minsk, Izd-vo AN BSSR, 1962. 196 - 204

TEXT: This paper reports a study of the spectral characteristics of pure air and of air containing carbon dust. In addition, a study was made of the properties of nitrogen, oxygen and hydrogen up to 3 500 °K and helium and argon above 5 000 °K. A special steel chamber in which the gases were adiabatically compressed was used to obtain the above temperatures between 100 and 1 000 atm. The temperatures could be held for about 1 ms. The emission spectra were recorded with the aid of the ИСП-51 (ISP-51) spectrograph (both integral and time-resolved spectra were obtained). A determination was made in each case of the temperature, emissivity, degree of blackness, electrical

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conductivity and compression of the gas. It was found that the emission spectra of adiabatically compressed air and the diatomic gases mentioned above were continuous in the absence of artificially introduced impurities. Under these conditions, the emission of air between 5 500 and 6 700 Å at 2 000 - 3 500 °K and 100 - 500 atm may be looked upon as the emission of a grey body. Under these conditions the emission spectra of monoatomic gases exhibit spectral lines, superimposed on a low continuous background. The spectrum contains lines due to Fe, Cr, Na and K impurities. The emission spectra of air with suspended unactivated carbon dust are similar to the spectrum of ordinary air under the above conditions except that the intensity is higher by a factor of 60 - 70. The introduction of 0.5% (by wt.) of carbon dust into air gives rise to an increase in its electrical conductivity by a factor of 100 - 500. There are 7 figures and 1 table.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo
(Power Engineering Institute im.
G. M. Krzhizhanovskiy)

MOTULEVICH, V.P., kand.tekhn.nauk, red.; IONOV, V.P., kand.fiz.-matem. nauk, red.; SHEMANINA, V.N., red.; REZOUKHOVA, A.G., tekhn.red.

[Gas dynamics and heat exchange in connection with chemical reactions] Gazodinamika i teploobmen pri maliehii khimicheskikh reaktsii; sbornik statei. Moskva, Izd-vo inostr.lit-ry, 1962. 552 p. Translated from the English. (MIRA 15:5)
(Gas dynamics) (Heat--Transmission)

S/885/62/000/000/033/035
D234/D308

AUTHORS: Kon'kov, A. A. and Ionov, V. P.

TITLE: Investigation of radiation and electrical conductivity of adiabatically compressed air with admixtures of coal particles and CO

SOURCE: Akademiya nauk SSSR. Energeticheskiy institut. Fizicheskaya gazodinamika, teploobmen i termodinamika gazov vysokikh temperatur. Moscow, Izd-vo AN SSSR, 1962, 290-299

TEXT: The experimental installation and methods of measurement are described in detail. The author investigated the spectral composition of the radiation, the degree of blackness and electrical conductivity up to 3500°K and at 100 - 1000 atm. Maximum size of coal particles was 100 microns. The emission spectrum of air containing non-activated coal particles is continuous and similar to that of CO burning on oxygen atmosphere, for 5500 - 6700 Å wavelengths, with T = 2000 - 3500°K, p = 100 - 500 ata it can be regarded as a grey body radiation. The admixture of coal powder to air (0.5% by

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weight) increases the emission capacity of the latter by 60 - 70 times and its electrical conductivity by 100 - 500 times. The authors also give an oscillogram of the conductivity of adiabatically compressed $CO + O_2$ mixture, pointing out that it is asymmetrical.

There are 9 figures and 1 table.

IONOV, V.P.; TIKHOMIROV, V.I.

Inversion of the order of the salting-out capacity of cations during extraction. Radiokhimiia 5 no.5:559-562 '63. (MIRA 17:3)

SPITSYN, V.I.; GLAZUNOV, M.P.; KODOCHIGOV, P.N.; IONOV, V.P.

Determination of sodium in metallic tungsten by the radioactivation method. Zhur.anal.khim. 18 no.10:1272-1273 O '63. (MIRA 16:12)

1. Institute of Physical Chemistry, Academy of Sciences, U.S.S.R., Moscow.

L 12364-65 EWT(1)/EWP(m)/EWG(v)/FCS(k)/EWA(h)/EWA(1) Pd-1/Pe-5/Pi-4
AFTC(a)/AFETR/AEDC(b)/ASD(d)/SSD/ASD(f)-2/ASD(p)-3/AFWL/BSD/AEDC(a)/
SSD(b) MLK
ACCESSION NR: AT4048016 S/0000/64/000/000/0127/0137

AUTHOR: Ionov, V. P.; Nikolayev, G. N.; Gusev, M. V.; Luneva, O. I.

TITLE: Investigation of shock-tube flows using the Tepler method and high-speed photography

SOURCE: AN SSSR. Energeticheskiy institut. Fizicheskaya gazodinamika i svoyst-va gazov pri vy*sokikh temperaturakh (Physical gas dynamics and properties of gases at high temperatures). Moscow, Izd-vo Nauka, 1964, 127-137

TOPIC TAGS: shock tube, shock wave, shock wave reflection, supersonic flow, shock tube flow

ABSTRACT: An experimental study of shock-tube flows using the Tepler method and high-speed photography is presented. Detailed descriptions of the optical apparatus, shock tube, and the experimental procedure are given. The photographic records used to illustrate the various flow patterns and shock wave reflections in the range from Mach 6.7 to 7.2 are presented and discussed. The method is applied to the study of shock wave reflections from a wall with a slit and also to supersonic flow around obstacles of various shapes in oxygen and nitrogen.

Card 1/2

L 12364-65
ACCESSION NR: AT4048016

The results show the existence of a period of quasi-steady flow which follows the formation of the reflected shock wave and the establishment of the flow. The region behind the reflected shock wave seems to be a reservoir of high-temperature gas acquiring a supersonic velocity by flowing through the slit into the expanding channel. Orig. art. has: 8 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 06Mar64	ENCL: 00	SUB CODE: ME
NO REF SOV: 002	OTHER: 001	ATD PRESS: 3125

Card 2/2

VAYNERMAN, A.Ye.; VESELKOV, V.D.; IONOV, V.P.; VASIL'YEVA, L.A.

Mechanization of welding operations on building ways. Avtom. svar. 18 no.8:58-59 Ag '65. (MIRA 18:11)

1. Submitted February 26, 1965.

ACC NR: AT6022657 SOURCE CODE: UR/0000/66/000/000/0158/0164

AUTHOR: Ionov, V. P.; Nikolayev, G. N.

ORG: none

TITLE: Experimental study of a flow of dissociated gases through a supersonic nozzle

SOURCE: AN SSSR. Energeticheskiy institut. Issledovaniya po fizicheskoy gazodinamike (Studies of physical gas dynamics). Moscow, Izd-vo Nauka, 1966, 158-164.

TOPIC TAGS: gas flow, supersonic flow, equilibrium flow, propulsion nozzle, supersonic nozzle

ABSTRACT: The supersonic flow of various gases (oxygen, nitrogen, and carbon dioxide) through two supersonic nozzles was investigated experimentally. The nozzles were placed in a shock tube so that the heated and dissociated gas discharged through the nozzles after reflecting from the tube end. Two nozzles were used: one with two flat straight walls and two flat diverging walls, and the other, an axisymmetrical nozzle with a hyperbolic contour. The gas parameters at the nozzle outlet were determined by photographing the flow patterns of the gas flowing around a semi-wedge. Mach numbers at the nozzle outlet were obtained for various nozzle-area ratios, and then compared with data calculated under the assumption that the flow is in equilibrium and isentropic. The errors caused by disregarding the heat transfer and friction at the walls were estimated. A considerable deviation from the isentropic data was

Card 1/2

L 34406-66

ACC NR: AT6022657

observed for CO_2 and O_2. This discrepancy may be due to the fact that the flow is not in equilibrium. Orig. art. has: 5 figures. [PV]

SUB CODE: 21/ 20/ SUBM DATE: 31Feb66/ ORIG REF: 008/ OTH REF: 003/ ATD PRESS: 5033

Card 2/2 BLG

ZAKHAROV, S.N., kand.tekhn.nauk; KAPLAN, V.V., inzh.; IONOV, V.V., inzh.; OSIPOVA, T.V., inzh.; SHERMAN, Ya.N., inzh.; SHESHIN, B.A., inzh.

New MG-10 and MG-20 generator switches. Vest. elektroprom. 32 no.3: 71-76 Mr '61. (MIRA 15:6)

(Electric switchgear)

IONOV, V.V., inzh.

A method for longitudinal-transverse gas-blast in oil-break switches. Vest. elektroprom. 33 no.10:51-54 O '62.
(MIRA 15:9)

(Electric switchgear)

RUNOV, V.K., kand.tekhn.nauk, dotsent; SEDOV, M.G., dotsent; IONOV, V.Ye., inzh.

Some defects in the introduction of large silica blocks in the city of Gorkiy. Trudy GISI no.43:16-24 '63. (MIRA 17:4)

IONOV, Yu.A.

Most effective periods for immunization with normal and purified adsorbed diphtheria anatoxins under experimental conditions. Kaz. med. zhur. no. 4:50-52 Jl-Ag '60. (MIRA 13:8)

1. Iz kafedry epidemiologii (zav. - prof. A.E. Ozol) Kazanskogo meditsinskogo instituta.
(DIPHTHERIA—PREVENTIVE INOCULATION)

IONOV, Yu.A.

Importance of the interval between the vaccination with purified adsorbed diphtheria anatoxin and the revaccination with native anatoxin. Nauch. trudy Kaz. gos. med. inst. 14: 187-188 '64. (MIRA 18:9)

1. Kafedra epidemiologii (zav. - prof. A.E.Ozol) Kazanskogo meditsinskogo instituta.

IONOV, Yu.A.

Immunological effectiveness of purified adsorbed diphtheria anatoxin and native anatoxin in an experiment. Nauch. trudy Kaz. gos. med. inst. 14:189-191 '64. (MIRA 18:9)

1. Kafedra epidemiologii (zav. - prof. A.E.Ozol) Kazanskogo meditsinskogo instituta.

IONOVA, Ye.A.; GOLOVNYA, V.A.

Titanium tetrachloride compounds with carbamide.
Zhur.neorg.khim. 11 no.1:138-143 Ja '66.
(MIRA 19:1)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.Kurnakova AN SSSR. Submitted April 6, 1965.

IONOVA, Ye.A.

Interaction of titanium tetrachloride with pyridine and ethyl alochol. Izv. AN SSSR. Neorg. mat. 1 no.11:1853-1857 N '65.
(MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR. Submitted April 27, 1965.

IONOV, Yu. K., kand.tekhn.nauk

Relation between the peening and the wearing of band steel.
Vop. rud. transp. no.2:312-315 1957. (MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Mine railroads)
(Locomotives--Wheels)
(Mechanical wear)

IONOV, Yu.K., kand.tekhn.nauk

Abrasion wearing of band steel. Vop. rud. transp. no.2:316-321 1957. (MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Mine railroads)
(Locomotives—Wheels)
(Mechanical wear)

IGNOV, Yu.K., kand.tekhn.nauk; GVAY, P.I., otv. za vypusk

[Design and wear resistance of pins of a sectional pull chain] O raschete i iznose pal'tsev tiagovoi razbornoi tsepi. Dnepropetrovsk, 1959. 17 p. (Dnepropetrovsk. Inzhenerno-stroitel'nyi institut. Nauchnoe soobshchenie, no.52). (MIRA 14:6)

1. Zamestitel' direktora Dnepropetrovskogo inzhenerno-stroitel'nogo instituta (for Gvay).

(Chains)

Ionova, A.I.

KARAVASHKOVA, A.I.; RYK-BOGDANIKO, M.G.; IONOVA, A.I.

Using a DDT insecticide mixture for controlling flies. Gig. i san. 22 no.6:87-88 Je '57. (MIRA 10:10)

1. Iz Moskovskoy gorodskoy dezinfektsionnoy stantsii.
(FLIES,
control with DDT mixtures (Rus))
(DDT, effects,
flies control, mixtures (Rus))

LINEVA, V.A.; ABEZGAUZ, I.Z.; IONOVA, A.I.

Use of dry "mukhomor" fly-paper with chlorophos as an active substance in fly control. Med.paraz.i paraz.bol. 29 no.3: 330-334 '60. (MIRA 13:12)

(INSECTICIDES) (FLIES--EXTERMINATION)

IONOVA, A. M.: Master Agric Sci (diss) -- "Keeping potatoes in holes and trenches under the conditions of western Siberia". Omsk, 1959. 23 pp (Abstracts of dissertations presented at the Omsk Agric Inst im S. M. Kirov), 170 copies (KL, No 14, 1959, 121)

IONOVA, I. A.: Master Med Sci (diss) -- "The problem of reactivity in dysentery of children". Moscow, 1958. 15 pp (Second Moscow State Med Inst im N. I. Pirogov), 220 copies (KL, No 5, 1959, 156)

IONOVA, G.V.; DYATKINA, M.Ye.

Molecular orbits of tetrahedral hydroxyanions of transition elements. Report No.1: Chromate and permanganate. Zhur. strukt. khim. 6 no.1:128-136 Ja-F '65.

(MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR. Submitted January 10, 1964.

IONOVA, G.V.; DYATKINA, M.Ye.

Molecular orbitals of tetrahedral transition metal oxyanions. Report No.3: Orthovanadate ion. Zhur. strukt. khim. 6 no.2:283-285 Mr-Ap '65. (MIRA 18:7)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

IONOVA, G.V.; DYATKINA, M.Ye.

Molecular orbits of MnO_3F. Zhur. neorg. khim. 10 no.9:2036-2040 S '65. (MIRA 18:10)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

IONOVA, G.V.; DYATKINA, M.Ye.

Molecular orbitals of tetrahedral oxyanions of transition metals. Report No.4: FeO_4 molecule. Zhur.strukt.khim. 6 no.5:796-797 S-O '65. (MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.Kurnakova, AN SSSR. Submitted March 1, 1965.

IONOVA, I.A.

Problem of reactivity in dysentery in children. Vop.okh. mat. i det. 4 no.3:45-49 My-Je '59. (MIRA 12:8)

1. Iz kafedry propedevtiki detskikh bolezney (zav. - prof. V.A.Vlasov) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova (dir. - dotsent M.G.Sirotkina) na baze Detskoy klinicheskoy bol'nitsy imeni N.F.Filatova (glavnyy vrach M.N.Kalugina).

(DYSENTERY)

IONOVA, I.V.

Erythrocyte sedimentation rate and curves of erythrocyte sedimentation in children in nurseries, kindergartens, and schools [with summary in English]. Pediatriia 36 no.9:62-66 D'58 (MIRA 11:11)

1. Iz kafedry propedevtiki detskikh bolezney (zav. - prof. V.A. Vlasov) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova na baze detskoy bol'nitsy imeni N.F. Filatova (glavnyy vrach M.N. Kalugina).

(BLOOD SEDIMENTATION
in child in Russia (Rus))

TOMOVA, I.V.; MOROZOVA, Ye.A.; PLINER, S.A.; DROBINSKAYA, N.A.

Synthesis of glycyl-leucine and glycyl-phenylalanine tetrapeptides. Vest.Mosk.un.Ser.2:Khim. 19 no.4:85-89 Jl-Ag '64.

(MIRA 18:8)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

LYSOVA, A.I., kand. tekhn. nauk; DANDBEKOV, S.D., kand. tekhn. nauk; SMIRNOVA, L.Z., inzh.; KALISTRATOVA, M.V.; GANBERG, M.M.; IONOVA, K.I.; SHISTER, G.M., red.

[Album of prestressed reinforced concrete roof constructions for the general repair of apartment houses] Al'bom predvaritel'no napriazhennykh zhelezobetonnykh konstruktsii krysh dlia kapital'nogo remonta zhilykh domov. Leningrad, 1962. 8, 58 p. diagrs. (MIRA 16:11)

1. Akademiya kommunal'nogo khozyaystva. Leningradskiy nauchno-issledovatel'skiy institut.
(Roofing, Concrete)

3322. Role of diffusion in processes taking place on electrodes during spectrographic analysis with spark discharge. V. V. Nalimov and K. I. Ionova *Zh. Anal. Khim., U.S.S.R.*, 1954, 9 (2), 46–54. — To minimise the effect of third elements in spectrographic analysis, it is necessary to destroy the crystal lattice, *i.e.*, to work with the liquid state, and at the same time retain spark excitation. The sample must remain completely non-oxidised or completely oxidised; no oxidation-reduction processes should occur on the surface of the sample.

G. S. SMITH

LYSOVA, A.I., kand. tekhn. nauk; VINER, B.M., inzh.; GANBERG, M.N., inzh.; IONOVA, K.I., inzh.; KALISTRATOVA, M.V., inzh.; RABINOVICH, G.M., inzh.; SHISTER, G.M., red.

[Album working drawings of reinforced concrete elements of enclosing structures for major repair of residential buildings; working drawings] Al'bom sbornykh zhelezobetonnykh konstruktsii perekrytii dlia kapital'nogo remonta zhilykh domov; rabochie chertezhi. Leningrad, Akad. kommun.khoz. 1963. 115 p. (MIRA 17:7)

1. Akademiya kommunal'nogo khozyaystva. Leningradskiy nauchno-issledovatel'skiy institut.

USSR.

Role of diffusion in electrode reactions occurring in spectrum analysis with spark discharge. V. V. Nalimov and K. I. Iosova. *J. Anal. Chem. U.S.S.R.* 9, 87-90(1954)(English translation).—See *C.A.* 48, 6002e. H. L. H.

IONOVA, K.I.

USSR/ Chemistry - Spectral analysis

Card 1/1 Pub. 43 - 71/97

Authors : Nalimov, V. V., and Ionova, K. I.

Title : The effect of "third elements" during spectral analysis of slag with spark excitation

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 286-287, Mar-Apr 1954

Abstract : Experiments were conducted for the purpose of observing the phenomenon of displacement of calibration curves under the effect of third elements during spectral analysis of slag and to explain whether or not it is possible to eliminate or at least reduce this effect without changing the analysis method. Brief summary of the results is presented.

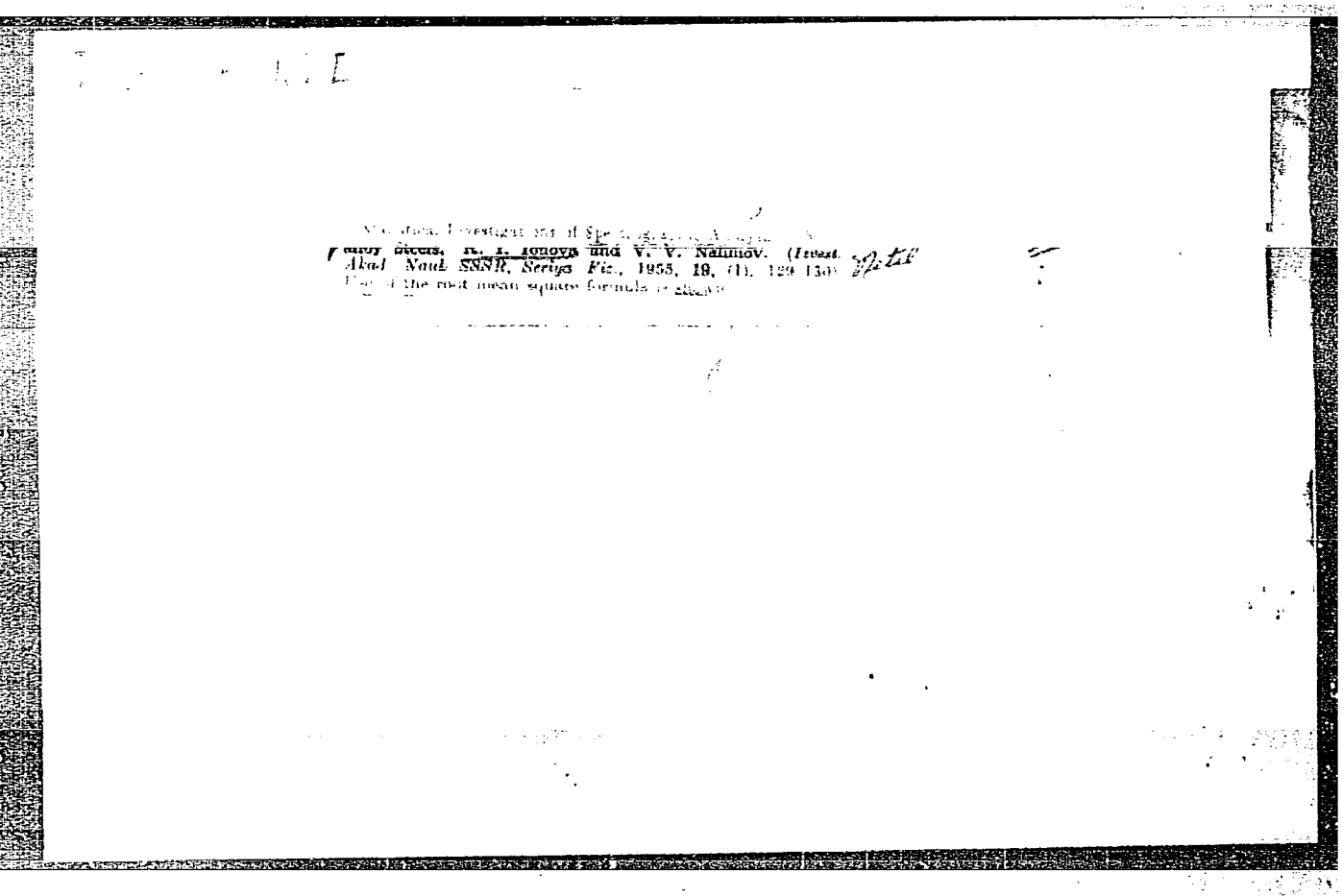
Institution : The Kazakh Metallurgical Plant

Submitted : .....

IONOVA, K.I.; MALIMOV, V.V.

Statistical study of the precision of spectrum analysis of unalloyed steel. Izv. AN SSSR. Ser. fiz. 19 no.1:129-130 Ja-F '55. (MLRA 8:9)

1. Kazakhskiy metallurgicheskiy zavod
(Spectrum analysis) (Spectrometer)



IONOVA, K.I.; KALIMOV, V.V.

Statistical study of the exactitude of unalloyed steel spectrographic analysis. Zav. lab. 23 no.5:586-591 '57. (MIRA 10:8)

1. Kazakhskiy metallurgicheskiy zavod.
(Steel--Spectra) (Correlation (Statistics))

NALIMOV, V.V.; IONOVA, K.I.

Statistical consideration of the fluctuation of parameters of calibration curves. Fiz.sbor. no.4:528-532 '58.(MIRA 12:5)

1. Kazakhskiy metallurgicheskiy zavod.
(Spectrum analysis)

AUTHORS: Ionova, K.I., Genshaft, S.A. 32-24-4-34/67

TITLE: A Method for the Spectral Analysis of Cast Iron Graphite on Magnesium (Metod spektral'nogo analiza chuguna i grafita na magniy)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 459-460 (USSR)

ABSTRACT: In the course of the determination of magnesium in cast iron the fine metal chips on the sand bath are dissolved in hydrochloric- and nitric acid (1:1) and the dissolved magnesium is examined on a ISP-28 spectrograph. A IG-2 generator with carbon electrodes is used as a light source. Standard samples made from synthetic standard magnesite Nr 82 are used, the preparation of which is described. The error limit of this method is given as being ± 5.8%; magnesium can be determined within a concentration interval of 0.02-0.45% in cast iron. Analysis of six samples takes 4 1/2 hours. In the case of the determination of magnesium in graphite powder, the latter is annealed for 2 hours at 1000° C; there follows a treatment with hydrofluoric acid, melting in soda at 1000° C for 5 minutes, and dissolution in hydrochloric acid (1:2). Standard samples of magnesite, the production of

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A Method for the Spectral Analysis of Cast Iron Graphite on Magnesium

32-24-4-34/67

which is described, are again used. The employment of an "inner standard" in form of a chromous chloride solution is also necessary. The other conditions are similar to those applying in the case of the determination of magnesium in cast iron. The square deviation is mentioned as being ± 2.53% (relative). Magnesium can be determined in quantities of from 0.5 - 11% in graphite powder, in which case 6 hours are needed for the investigation of five samples. Investigations were carried out in cooperation with N.R. Laletina. There are 4 references, 4 of which are Soviet.

ASSOCIATION: Kazakhskiy metallurgicheskiy zavod (Kazakh Metallurgical Plant)

1. Graphite powders--Spectra 2. Magnesium--Determination 3. Spectrum analyzers--Performance 4. Hydrofluoric acid --Chemical effects

Card 2/2

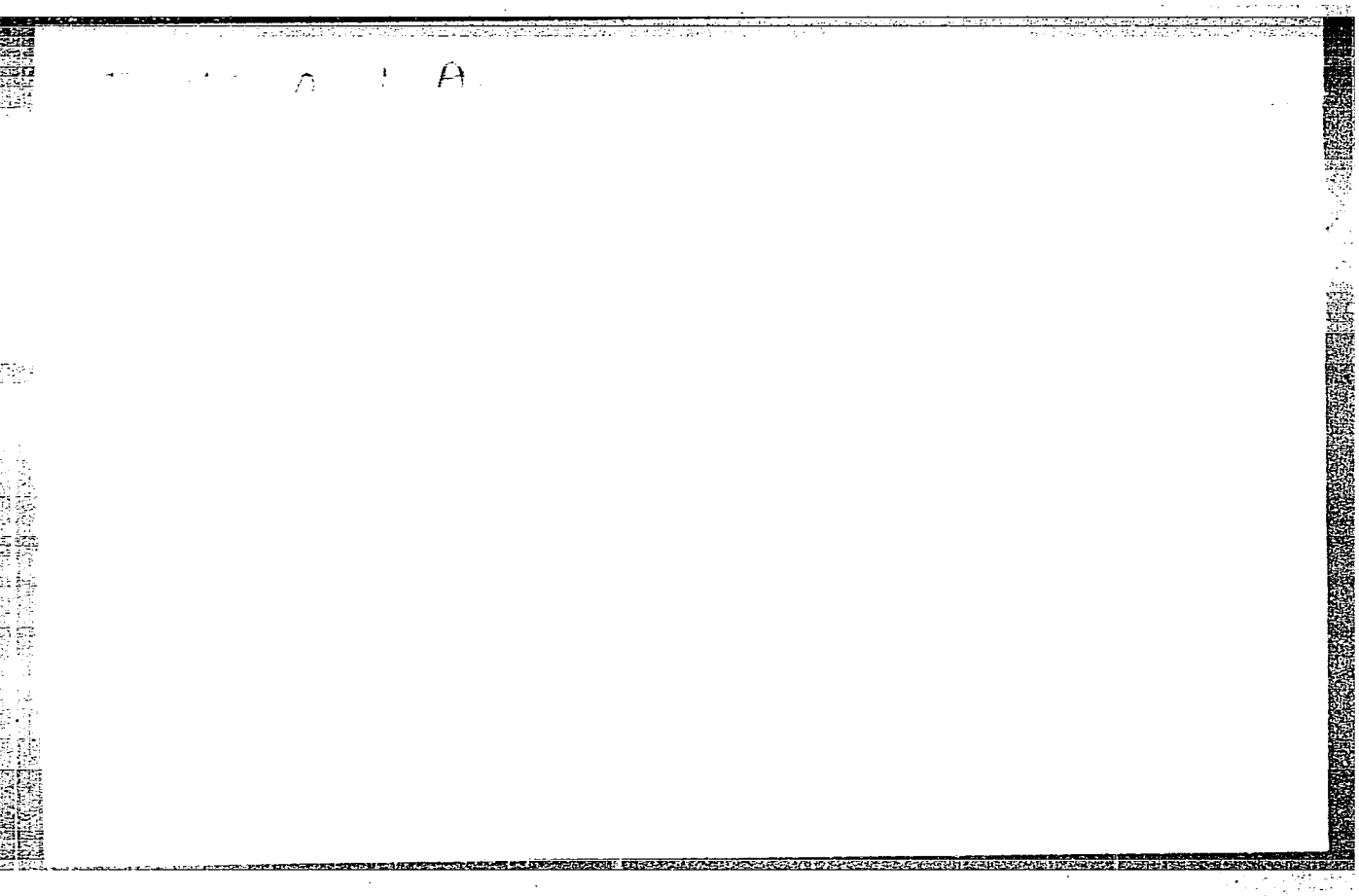
IONOVA, K. I.

Cand Phys-Math Sci - (diss) "Investigation of the effect of tertiary elements in the spark spectral analysis of open-hearth slags." Alma-Ata, 1960. 16 pp; (Ministry of Higher and Secondary Specialist Education Kazakh. SSR, Kazakhstan State Univ imeni S. M. Kirov); 150 copies; price not given; (KL, 5-61 sup, 172)

IONOVA, K.I.

Accuracy of the spectrographic method of analysis of open hearth slags. Zav.lab. 26 no.5:581-587 '60. (MIRA 13:7)

1. Karagandinskiy politekhnicheskiy institut.
(Slag--Spectra)



SOV/75-13-4-11/29

AUTHORS: Karanovich, G. G., Ionova, L. A., Podol'skaya, B. L.

TITLE: The Photometric Determination of Gallium by Means of Gallion (Fotometricheskoye opredeleniye galliya pri pomoshchi galliona)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 4, pp. 439-444 (USSR)

ABSTRACT: Several organic compounds are used for the photometric determination of gallium. These compounds react with gallium in forming deeply colored compounds (Refs 1-4). "Gallion", a reaction product from H-acid and diazotized 2-amino-4-nitro-6-chloro-phenol, is an interesting reagent to gallium (Ref 6). It is water-soluble; its 0,01% aqueous solution has a dark-red- and the alkaline solution a blue-violet color. The reagent is easily soluble in alcohol and acetone, whereas it is difficult to solve in chloroform and ethylene-chloride. The solutions of gallion form colored compounds with several elements. A compound of blue color is formed with gallium. Gallion changes its color between p_H 3,8 and 5,8 from red to blue-violet. Between p_H 5,8 and 13 the blue-violet color does not change.

The Photometric Determination of Gallium by Means of Gallion

With a further increase of the p_H-value the color changes to pink and attains the same shade at p_H about 14 as at p_H 4. The optimum p_H-value for the determination of gallium is at p_H 2,4 - 3,4. The maximum of light-absorption is at 600 mμ. A biphthalate buffer solution is useful for standardization, though it depends in a high degree on temperature. The crystals separate if temperature drops to +16°. At optimum conditions (p_H about 3,2) the susceptibility of the determination amounts to 0,2γ gallium in 5 ml solution. If the solution is heated, the final color is reached after 1 1/2 to 2 minutes, but at room temperature only after 10 to 15 minutes. Determination can be carried out by means of colorimetric microtitration. The maximal tolerable quantities of foreign ions which do not yield colored compounds with gallion (Ge, Pr, La, Mn, Co, Zn, Li, In, Rh, Tl, Re, Pb, Mg, Ca, Be, Al) were found and are mentioned. Aluminum and indium form colored compounds with gallion at p_H about 3,2. Gallium, however, can be determined in stronger acid compounds if there is a 50-fold excess of

The Photometric Determination of Gallium by Means of Gallion

these two elements. The influence of iron, which is disturbing to a high degree, can be removed by a hydrochloric acid solution of hydroxylamine. Copper likewise exercises a disturbing influence and has to be reduced by means of a solution of sodium sulfate before its determination. After adding the hydroxylamine solution, the p_H-value of the solution has to be brought to 2,4 - 3,2 by sodium acetate. Prior to its determination in alumosilicates, aluminum alloy, zinc blende, and other materials containing only traces of gallium, the latter has to be separated. This is usually done by extraction by means of organic solvents from hydrochloric acid solution (Refs 3, 5, 7). The extraction with isoamylalcohol and ethyl acetate from 6n hydrochloric acid solution proved to be the most useful. The conditions for the separation and the determination of gallium in various objects are mentioned in detail. There are 4 figures, 7 tables, and 7 references, 2 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh

SOV/75-13-4-11/29

The Photometric Determination of Gallium by Means of Gallion

reaktivov, Moskva (All-Union Scientific Research Institute of Chemical Reagents, Moscow)

SUBMITTED: September 20, 1956

1. Gallium--Determination 2. Gallion--Properties 3. Reagents --Synthesis 4. Photometry

Card 4/4

ISTOMINA, K. Ye.; IONOVA, L.A.

Determination of small quantities of caprolactam in aqueous solution. Zav.lab. 27 no.2:160-162 '61. (MIRA 14:3)

1. Gosudarstvennyy institut azotnoy promyshlennosti.
(Hexamethylenimine)

IONOVA, L.V.; MOROZOVA, Ye.A.

Use of formyl protection in the synthesis of lysine peptides. Zhur.ob. khim. 34 no.2:403-407 F '64. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

IONOVA, L.V.; MOZZHUKHIN, D.D.; MOROZOVA, Ye.A.

Synthesis of tetrapeptides. Zhur. ob. khim. 34 no. 3:769-772 Mr '64. (MIRA 17:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

MOROZOVA, Ye.A.; IONOVA, L.V.; PLINER, S.A.

Cyclization of tetrapeptides by using ethoxyacetylene as a condensation agent. Dokl. AN SSSR 157 no.1:203-206 Jl '64
(MIRA 17:8)

1. Predstavleno akademikom A.N. Belozerskim.

MOROZOVA, Ye.A.; ZHENODAROVA, S.M.; IONOVA, L.V.; GULYAYEV, N.N.

Cyclization of peptides with the use of ethoxyacetylene as a condensing agent. Zhur. ob. khim. 34 no.9:2859-2863 S '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet.

MOROZOVA, Ye.A.; IONOVA, L.V.; DROBINSKAYA, N.A.

Synthesis of cyclization of glycylphenylalanine tetrapeptides.
Zhur. ob. khim. 34 no.12:3888-3890 D '64 (MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.

IONOVA, L.Ye.

Leptospirosis infection at a Leningrad meat combine, according to data of 1957. Trudy Len.inst.epid. i microbiol. 18:193-201 '58. (MIRA 16:7)

1. Iz kafedry epidemiologii Leningradskogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M.Kirova i laboratorii osoboopasnykh infektsiy i rikketsiozov Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera (nauchny rukovoditel' - prof. K.N.Tokarevich).
(LENINGRAD--LEPTOSPIROSIS)
(LENINGRAD--PACKING-HOUSE WORKERS--DISEASES AND HYGIENE)

IONOVA, L. Ye. Cand Med Sci -- (diss) "Leptospirosis infection under conditions of a large city (Epidemiological and laboratory data)." Len, 1959. 15 pp (State Order of Lenin Inst for the Advanced Training of Physicians im S. M. Kirov). (KL, 41-59, 106)

POPOVA, Ye.M.; IONOVA, L.Ye.

Cases of water fever disease caused by Leptospira of the Tarasov type. Trudy Len.inst.epid.i mikrobiol. 20:146-156 '59.
(MIRA 16:1)

1. Iz laboratorii osobo opasnykh infektsiy i rikketsiozov Leningradskogo instituta imeni Pastera i kafedry epidemiologii Gosudarstvennogo instituta dlya usovershenstvovaniya vrachey.
(LEPTOSPIROSIS)

IONOVA, M.A.,referent; LEVASHEVA, M.Ye.,referent

Lowering timber in cars suspended in the cage (from "The Mining Journal" no.6354, 1957). Biul.TSIIN tsvet.met. no.18:36 '57. (MIRA 11:5)
(Canada--Material handling) (Mine timbering)

UDALKINA, M.B., referent; IONOVA, M.A., referent.

Shaft sinking in Roan Antilon and Pen Stock mines. Biul. TSIIN tsvet. met. no.22:32-36 '57. (MIRA 11:8)
(Southern Rhodesia--Copper mines and mining)

IONOVA, M.A.

Case of heart surgery. Khirurgiia 35 no.10:116-117 O '59.
(MIRA 12:12)

1. Iz khirurgicheskogo otdeleniya (zav. M.A. Ionova) bol'nitsy imeni N.K. Krupskoy Krivogo Roga Dnepropetrovskoy oblasti (glavnyy vrach G.P. Pidpalyy).
(HEART--SURGERY)

IONOVA, M.A., Cand Agr Sci -- (diss) "Study of the biological ~~particularities~~ peculiarities of the development of ~~the~~ apricots ~~with relation to its~~ in connection with selection for winter resistance." Michurinsk, 1958, 27 pp with illustrations (Min of Agr USSR. Fruit and Vegetable Inst im I.V. Michurin) 100 copies (KL, 50-58, 126)

IONOVA, M.A.

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