

VLADIMIROV, Lev Aleksandrovich; DZHAVAKHISHVILI, A.N., red.; PAATASHVILI, Sh.F., red.izd-va; TODUA, A.R., tekred.

[History of the study of runoff characteristics in mountain regions] K istorii issledovaniy zakonomernostei stoka v gornykh oblastiakh. Tbilisi, Izd-vo Akad.nauk Gruzinskoi SSR, 1960.  
145 p.  
(MIRA 14:4)

1. Rukovoditel' otdela gidrologii i klimatologii Instituta geografii im. Vekhushti Akademii nauk Gruzinskoy SSR (for Vladimirov).  
(Runoff)

VLADIMIROV, L. A.

"On the Regularity of Surface Run-Off in Mountain Regions (in Georgia)"

report to be submitted for the Intl. Geographical Union, 10th General Assembly  
and 19th Intl. Geographical Congress, Stockholm, Sweden, 6-13 August 1960.

VLADIMIROV, Lev Aleksandrovich, kand. geogr. nauk; DZHAVAKHISHVILI,  
A.N., akademik, red.; PAITASHVILI, Sh.F., red.izd-va;  
DZHAPARIDZE, N.A., tekhn.red.

[Mean annual runoff of the rivers of Georgia] Srednii godovoi stok  
redk Gruzii. Tbilisi, Akad. nauk Gruzinskoi SSR, 1962. 121 p.  
(MIRA 15.12)  
1. Rukovoditel' otdela gidrologii i klimatologii Instituta geografii  
im. Vakhushti Akademii nauk Gruz.SSR (for Vladimirov). 2. Akademiya  
nauk Gruz. SSR (for Dzhavakhishvili).  
(Georgia--Runoff)

Vladimirov, L.A.

Karst waters of Abkhazia. Trudy Inst. geog. AM Gruz. SSR 17:  
(MIRA 16:7)  
169-176 '62.

(Abkhazia—Karst)  
(Abkhazia—Water, Underground)

VLADIMIROV, L.A.

Underground relationship between the Kelasuri and Besleti Rivers.  
Trudy Inst. geog. AN Gruz. SSR 17:213-222 '62. (MIRA 16:7)

(Kelasuri Valley--Water, Underground)  
(Besleti Valley--Water, Underground)

VLADIMIROV, L.A.

Glacial water supply of the Georgian rivers. Izv. AN SSSR. Ser.  
geog. no.5:60-64 S-0 '63. (MIRA 16:10)

1. Institut geografii AN GruzSSR.

ARSENIN, V. Ya.; VLADIMIROV, L. A.; DOROSHENKO, G. G.; DUMOVA, A. A.; TIKHONOV, A. N.

"Concerning the Question about Working up the Spectra of Gamma Rays and Fast  
Neutrons Measured with the Help of Single Crystal Scintillation Spectrometers."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22  
Feb 64.

MIFI (Moscow Engineering Physics Inst.)

Vladimirov, L.A.

Hydrological regionalization of Georgia. Trudy Inst. geog.  
AN Gruz. SSR 18:217-222 '64. (MIRA 17:6)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6

TIKHONOV, A.N.; ARSENIN, V.Ya.; VLADIMIRCV, L.A.; DOROSHENKO, G.G.; DUMOVA, A.A.

Processing of spectra of gamma quanta and fast neutrons measured  
by means of single-crystal scintillation spectrometers. Izv. AN  
SSSR. Ser. fiz. 29 no.5:815-818 My '65. (MIRA 18:5)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6"

VLADIMIROV, L.A.

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VLADIMIROV, L.A.; APKHATAVA, I.S.; SHENGELIYA, R.G.; GIGINEYSHVILI, G.N.

Hypsometry of river basins in Georgia. Soob. AN Gruz. SSR 22 no.4:  
425-430 Ap '62. (MIRA 18:1)

1. AN Gruzinskoy SSP, Institut geografii im. Vakhushti, Tbilisi.  
Subm. tted January 10, 1961.

VLADIMIROV, L.A.

Hydrology and the regime of the rivers and springs of the Shaori  
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VLADIMIROV, L.A.

Methods for the compilation of the water budget in Georgia.  
Soob. AN Gruz. SSR 37 no.3:611-616 Mr '65. (MIRAI3:5)

1. Institut geografii imeni Vakhishti AN GruzSSR. Submitted  
September 10, 1964.

SHCHELKACHEV, V.N.; SAMARSKIY, A.A.; VLADIMIROV, L.A.

Solving special boundary problems of nonsteady fluid flow in  
an elastic bed using electronic computers. Izv. vys. ucheb.  
zav.; neft' i gaz 8 no.3:77-80 '65. (MIRA 18:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti  
im. akademika Gubkina i Moskovskiy gosudarstvennyy universitet im.  
M.V. Lomonosova.

1.1210

83715

S/056/60/038/004/003/048  
B019/B070

14.4100

AUTHORS:

Al'tshuler, L. V., Kormer, S. B., Brazhnik, M. I.,  
Vladimirov, L. A., Speranskaya, M. P., Funtikov, A. I.

TITLE:

The Isoentropic Compressibility of Aluminum, Copper, Lead,  
and Iron at High PressuresPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,  
Vol. 38, No. 4, pp. 1061-1073

TEXT: New methods of investigation of the properties of materials at high pressures depend on the application of shock waves. Two parameters are determined: the velocity of propagation of the shock waves, and the particle velocity at the front, which enable the pressure and the density of the shock compression to be determined. Another important kinematic parameter is the velocity of sound in the shock compressed material. This quantity characterizes the velocity of propagation of small disturbances in the compressed material. These small disturbances are weak shock waves and discharge waves, and are of importance in geophysical and other similar investigations. In the present paper, a method is suggested for

Card 1/3

(2)

83715

The Isoentropic Compressibility of Aluminum,  
Copper, Lead, and Iron at High Pressures

S/056/60/038/004/002/045  
B019/B070

the measurement of the velocity of sound in the front of strong shock waves, and results of investigations for aluminum, lead, and iron for the pressures between  $4 \cdot 10^5$  and  $3.5 \cdot 10^6$  atm are given. In the first section a method of measuring the velocity of sound is given which depends on measurement with the discharge waves. In this method the decrease of pressure due to the superposition of the discharge and dilatation waves in the zone of the boundary of the sample in the form of a stepwise built cylinder is measured photochronographically. In the second section, elastic and plastic discharge waves are discussed. In the third part, a method of measurement is discussed in which the collision of a plate and a sample from a material of known dynamic adiabatics is studied. This method leads to an experimental determination of the trajectories of the shock waves, and to the measurement of the particle velocities at one or more points of these trajectories. In the fourth part, the data given in Tables 2, 3, 4, and 5 are discussed in detail. In the last two sections, the isoentropic compressibility of the metals, and the upper limit of "cold" compression are studied on the basis of the results obtained here; and an estimate of the thermal energy and the temperature is made. In the present paper, the existence of two sound velocities corresponding to the

Card 2/3

83715

The Isoentropic Compressibility of Aluminum,  
Copper, Lead, and Iron at High Pressures

S/056/60/038/004/008/048  
B019/B070

elastic and plastic states of matter are established. The velocities of sound, and the isoentropic compressibilities in the above mentioned pressure range, the estimates of thermal energies; the temperature of shock compression; and the Grüneisen coefficients are given in tables. Yu. M. Shustov is mentioned. The paper was started in 1940 on the initiative of Academician Ya. B. Zel'dovich. The Corresponding Member of the AS USSR Ye. I. Zababakhin is thanked for many valuable advices. K. K. Krupnikov, B. N. Ledenev, and A. A. Bakanova are thanked for discussions. Professor V. A. Tsukerman and his colleagues I. Sh. Model' and M. A. Kanunov helped in the constructional problems. Some data were obtained from V. I. Borodulin, N. S. Tenigin, A. N. Kolesnikova, L. N. Gorelova, and N. S. Shvetsov helped in the experimental work. There are 10 figures, 7 tables, and 6 references: 5 Soviet and 3 US.

SUBMITTED: October 7, 1959 (initially), January 3, 1960 (after revision)

X

Card 3/3

VLADIMIROV, L.A.; SAMARSKY, A.A.; SHCHELKACHEV, V.N. (Moscow)

"The solution of special boundary value problems of the unsteady motion of an elastic fluid in a elastic layer with the aid of electronic computers"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

1 APR, 1963 VADIMOV, V.A.

Nonstationary gas flow to well lines. Gas prod. 8 no. 123-47  
163 (MIRA 2727)

LAPUK, B.B.; ABUTALIYEV, E.B.; VIABILIMOV, L.A.

Unsteady gas flow in a stratum of variable depth. Izv. AN Uz.  
SSR. Ser. tekhn. nauk 8 no.3:25-35 '64.

1. Institut mekhaniki s vychislitel'nym tsentrom AN UzSSR.  
(MIRA 17:11)

VLADIMIROV, L.D.

Organizing a physics study room. Fiz. v shkole 23 no.4:80-84  
Jl-Ag '63. (MIRA 17:1)

1. 2-ya srednyaya shkola, Noginsk.

Vladimirov, L.D.

AUTHOR: Vladimirov, L.D., (Nolinsk, Kirovskaya Oblast') 47-58-3-18/27

TITLE: From the Experience of Organizing a Physics Laboratory (Iz opyta organizatsii fizicheskogo kabineta)

PERIODICAL: Fizika v Shkole, 1958, Nr 3, pp 67-69 (USSR)

ABSTRACT: The author recalls how he set up a physics laboratory in 1955 with more than 50 experimental appliances prepared by the students themselves.

ASSOCIATION: 2-ya srednyaya shkola (The 2nd Secondary School), Nolinsk, Kirovskaya Oblast'.

AVAILABLE: Library of Congress

Card 1/1      1. Physics-Study and teaching    2. Physics laboratories-Organization

VLADIMIROVA, L.F.

On the effect of crystalline carboxy polypeptidase on crenosin.  
Biokhimia, Moskva 15 no.4:380-383 July-Aug 1950. (CLML 20:7)

1. Laboratory of Biological Chemistry, Kavan' State Medical Institute.

VIADENIROVA, I. F.

"The Biological Characteristics of Blood and Blood Exuded From Wounds During the Healing of Suppurative Wounds." Cand Biol Sci, Kazan' State Veterinary Inst. Tresni N. E. Bauman, Kazan', 1954. (KL, No 7, Feb 65)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations  
Defended at USSR Higher Educational Institutions (1<sup>st</sup>)

VLADIMIROV, L. I.

PA 65T29

USSR/Communications  
Telegraphy

Apr 1948

"Let Us Introduce Order Into the Work of the Khar'kov  
and Rostov-on-the-Don Telegraph Departments," L. I.  
Vladimirov, 1½ pp

"Vest Svyazi - Elektro-Svyaz'" No 4 (97)

Decree No 75 of the Ministry of Communications has  
as its objective the increase in the performance  
quality of communications lines. Actual operation  
and results of this decree can be seen in the results  
achieved at the Khar'kov and Rostov Telegraph Depart-  
ments. Briefs improvements accomplished.

FDB

65T29

VLADIMIROV, I.I.

Nahesti poriadok v robote telegrafnykh otdelenii Khar'kova i Rostova-na-Donu.  
[To put in order the work of the Kharkov and Rostov telegraph departments].  
(Vestnik sviazi. Elektrosviaz, 1946, no. 4, p. 7-8). DLG: TK4.945

SC: Soviet Transportation and Communications, A Bibliography, Library of Congress,  
Reference Department, Washington, 1952, Unclassified.

1. VLADIMIROV, L. N.
2. USSR 600
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7. New development in founding from fusible patterns, Lit. proizv., No. 12, 1952.
  
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VLADIMIROV, L.P.; SHUSTERMAN, M.I.; KONIKOVA, R.S.; KOMAROVA, L.P.

Corrosion and erosion resistance of chromium carbide alloys  
in multicomponent aggressive media. Porosh. met. 4 no.6:  
68-70 N.D '64.

(MIRA 18:3)

1. Komunarskiy gorno-metallurgicheskiy institut i Komunarskiy  
koksokhimicheskiy zavod.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6

VIADINOV, I.P.; SHCHERBINA, M.I.; KHNILKOV, R.S.; DOLGOV, I.I.

Erosion-resistant materials for the hydraulic transportation  
of slag. Met. i gornozav. prom. no. 6:71 N-P '64.  
(MIRA 18:3)

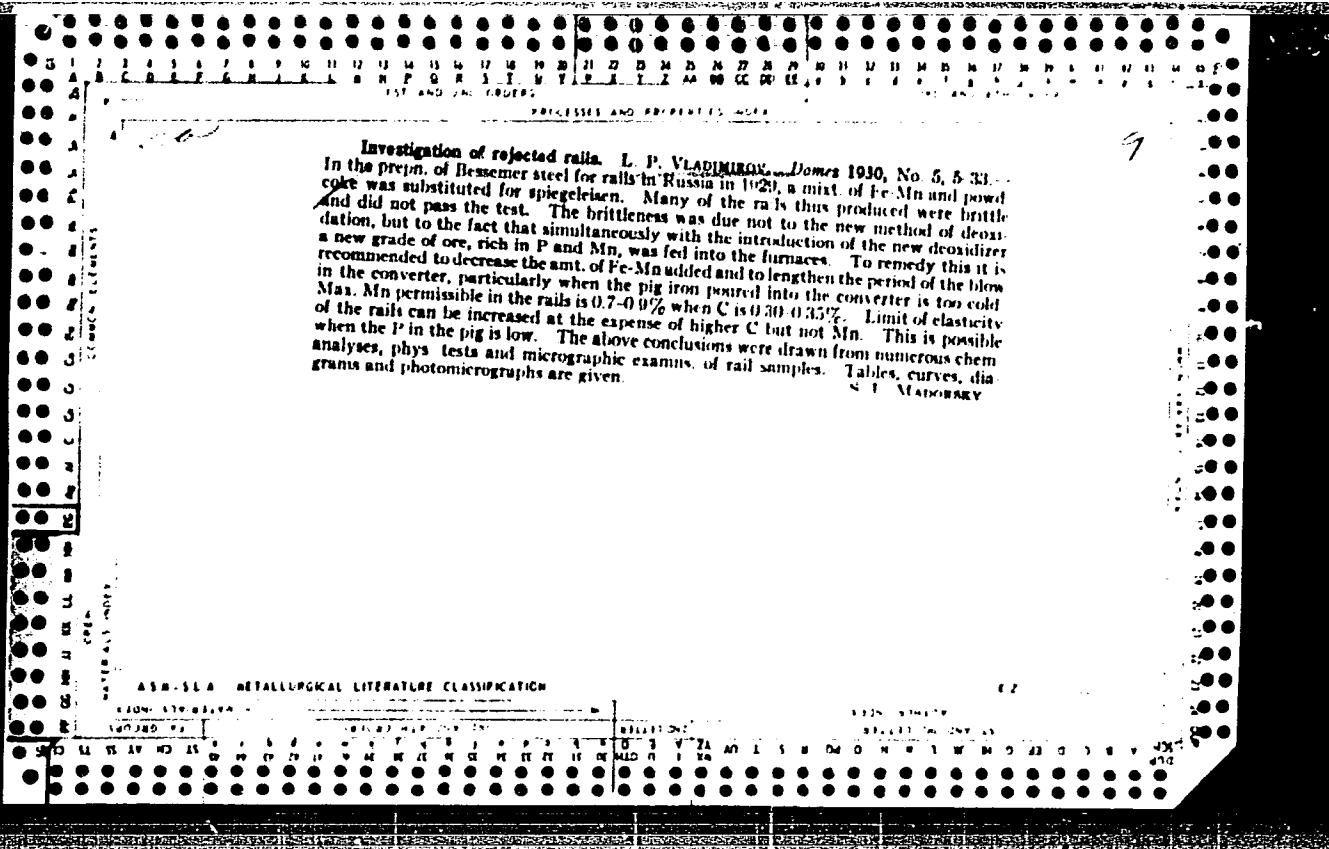
APPROVED FOR RELEASE: 03/14/2001

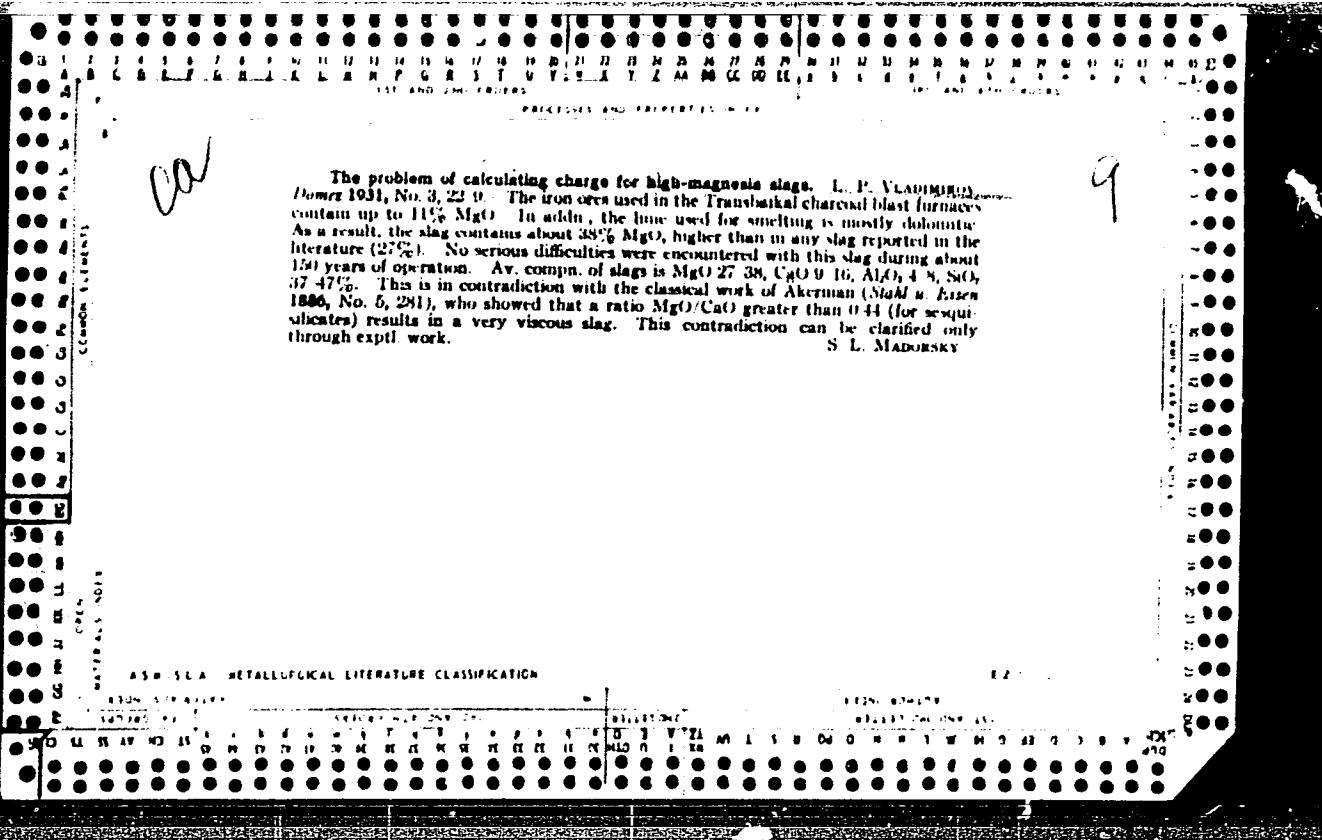
CIA-RDP86-00513R001860210016-6"

VLADIMIROV, L.P., kand.tekhn.nauk; KONIKOVA, R.S., i. zh.: KOMAROVA,  
L.P., inzh.

Low-alkali glass tubes and their corrosive resistance.  
Stek. i ker. № 9:7-9 S '64. (MIRA 18:4)

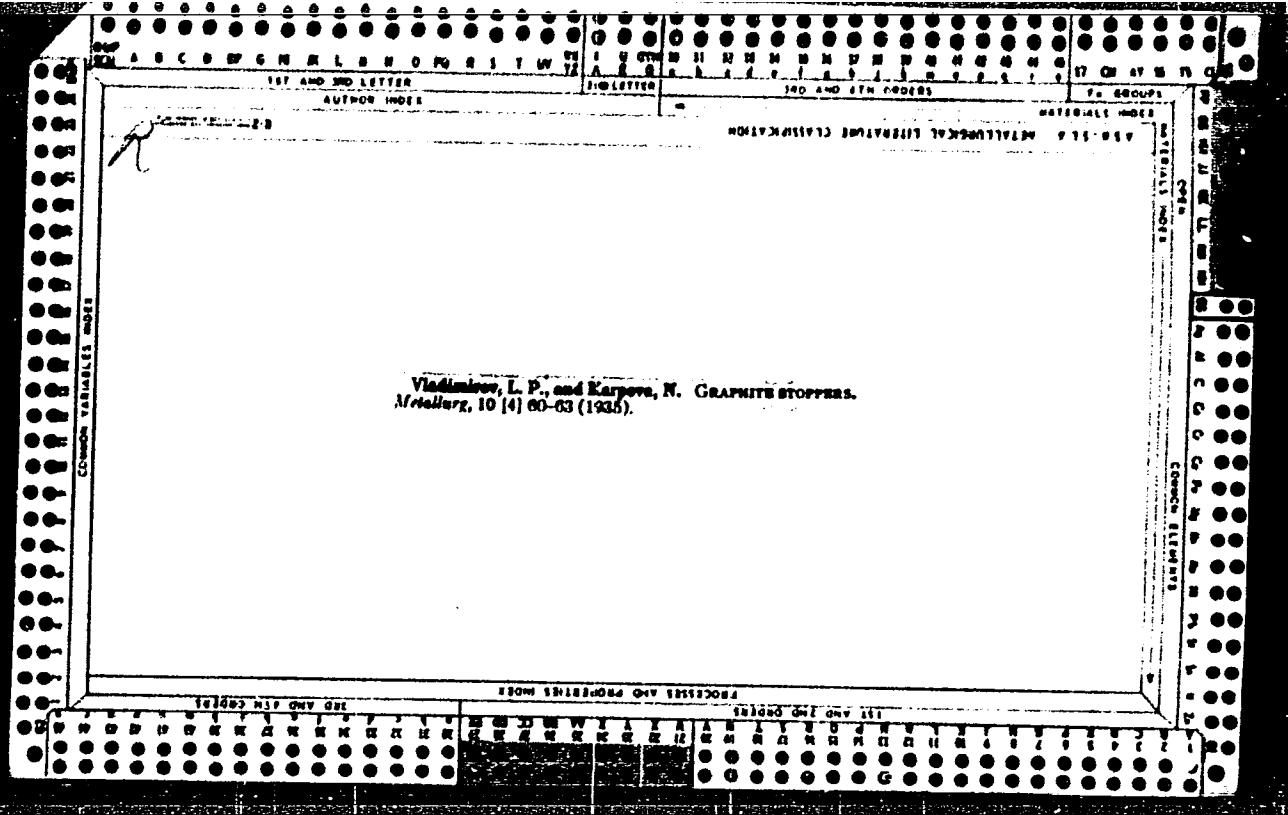
1. Kommunarskiy gorno-metallurgicheskiy institut (for  
Vladimirov). 2. Kommunarskiy koksokhimicheskiy zavod  
(for Konikova, Komarova).





"APPROVED FOR RELEASE: 03/14/2001

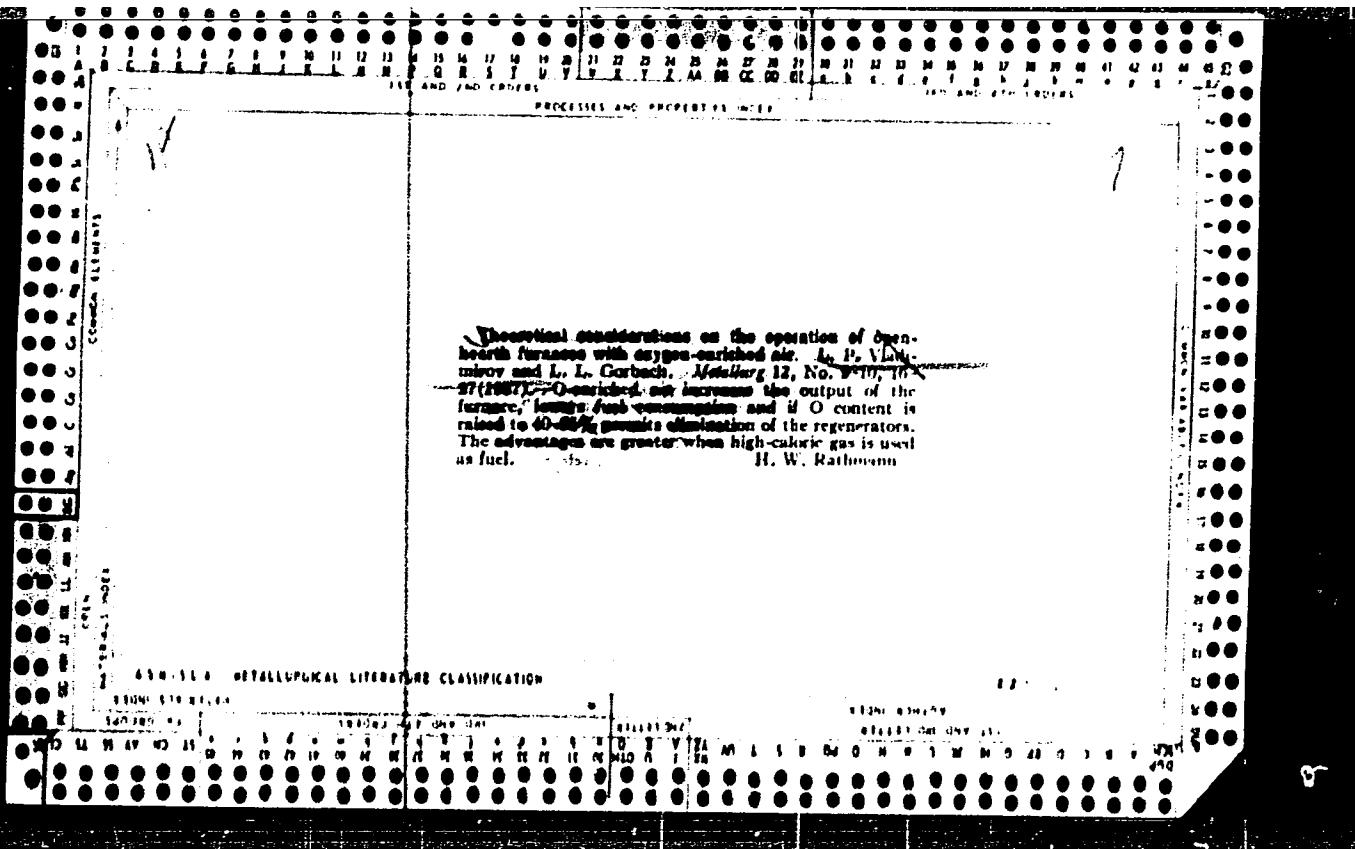
CIA-RDP86-00513R001860210016-6

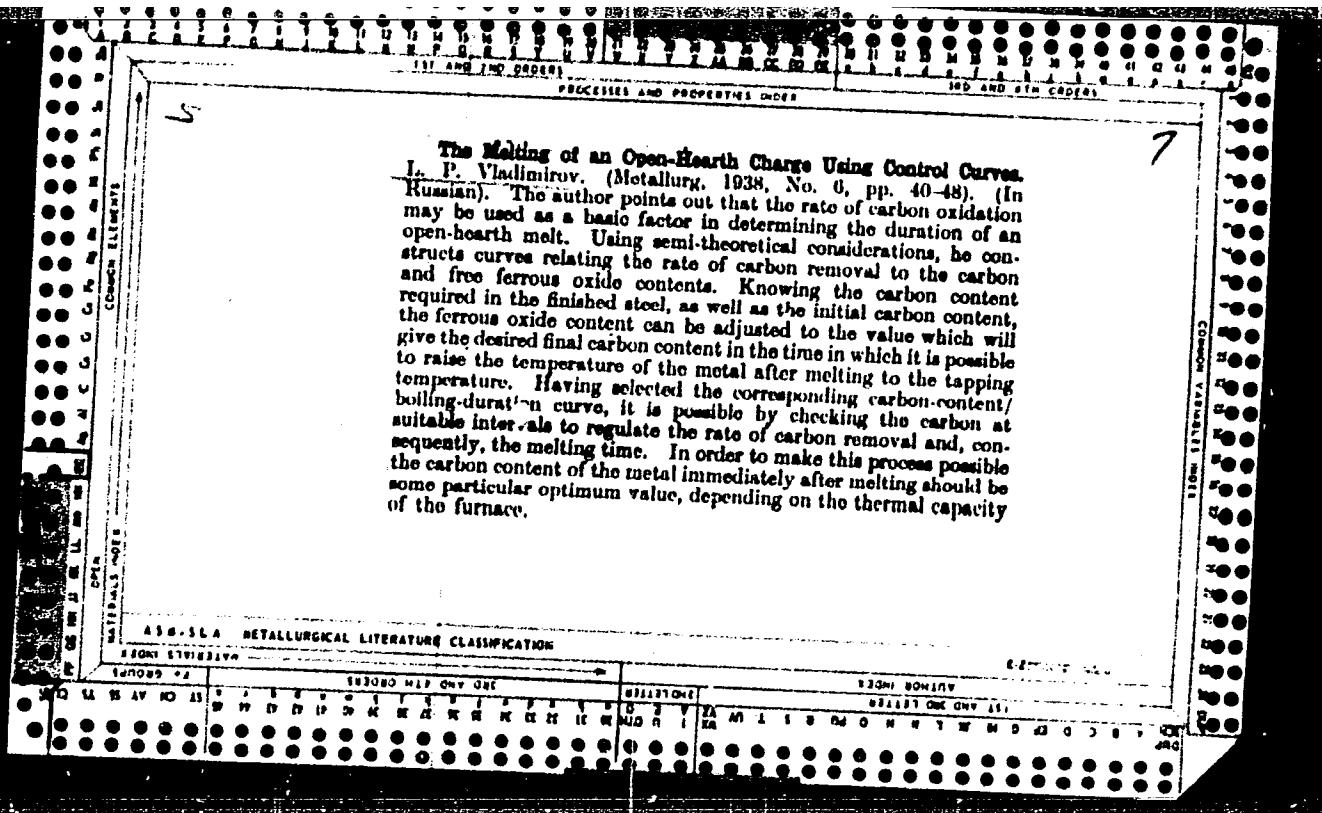


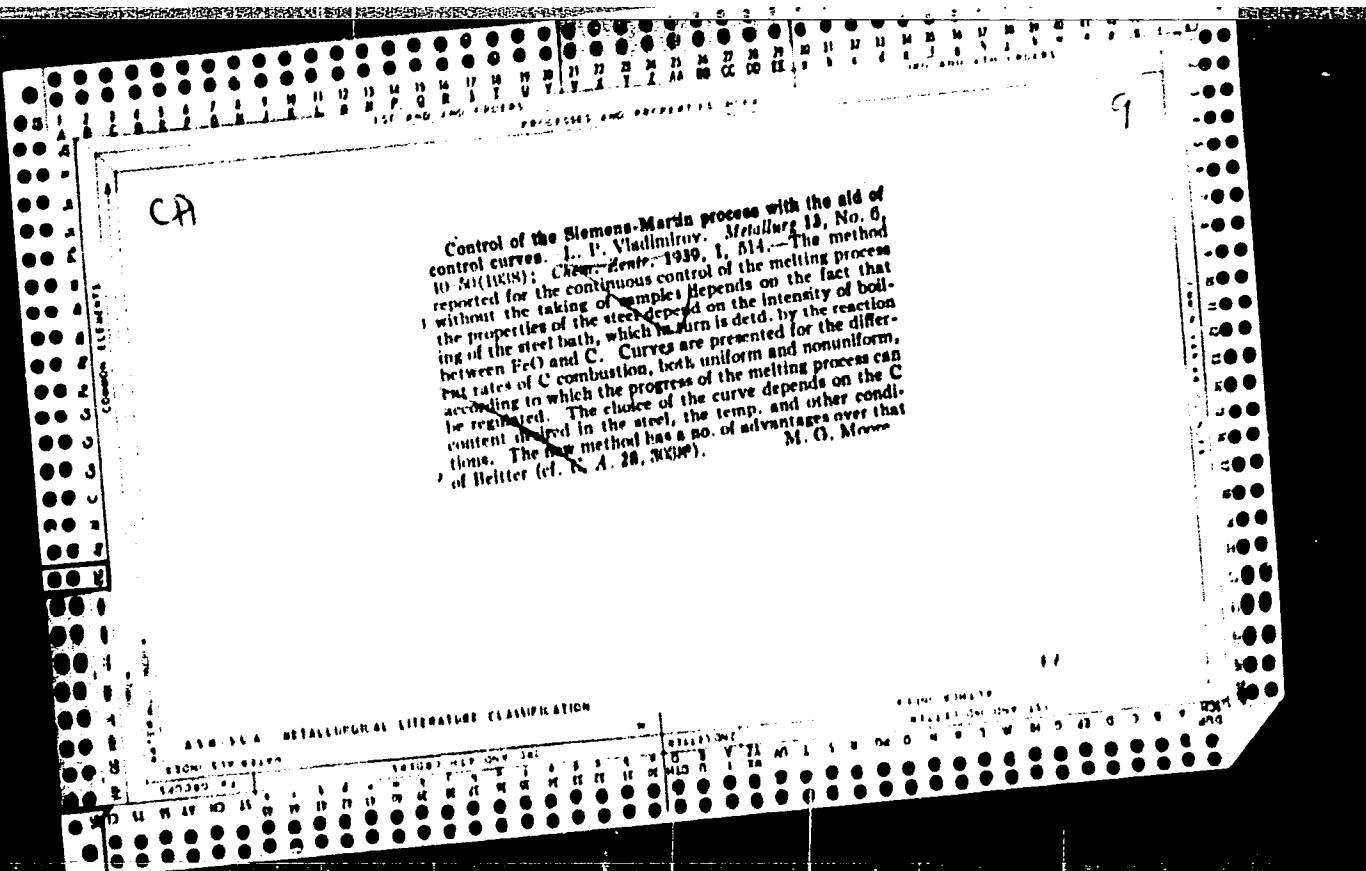
APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6"

**Metallurgical Investigation of a Mixer.** L. P. Vladimirov and M. S. Spirodonov. (Metallurgist, Russia, 1937, vol. 12, No. 3, Mar., pp. 22-37). (In Russian). A detailed report is presented of results obtained at the Kuznetz Works (Siberia) with a 1200-ton mixer for homogenising pig iron. Data are presented in graphical and tabular form and deal mainly with the degree of chemical homogeneity of the melt.







Connection between ferrous oxide and carbon in the liquid bath of the open-hearth furnace. L. P. Vladimirov. *Trudy Sibirskogo Metallurg. Inst., Kaf. Metallogr. Stali* (Stalinsk) 1938, 40 pp.; *Khim. Referat Zhur.* 1, No. 11-12, 94 (1939).—The suitability of Schenck's (cf. *C. A.* 28, 5003<sup>a</sup>) method for the rapid detn. of FeO dissolved in steel was verified by comparison with analysis of liquid steel by the O-Al method, and partly by the method of I extraction. Schenck's method is based on the calcn. of the velocity constns. of the reaction  $\text{FeO} + \text{C} \rightleftharpoons \text{Fe} + \text{CO}$ , on the detn. of the partial vapor pressure of CO, and on the practical detn. of the velocity const. from the amt. of the C consumed in the reaction. A detailed description of the exptl. part (including curves) is given. Expts. under plant operating conditions did not verify the assumption of Schenck used as the basis for his method of indirect detn. of FeO dissolved in the liquid bath. A theoretical analysis led to the conclusion that no const. values for the velocity const. and for the partial pressure of CO can be obtained under practical conditions, because the latter would lead to an equil. condition of the given system which is independent of the temp.  
W. R. Henn

9

## ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

Investigation of the heterogeneity of liquid metal in open-hearth furnaces with a deep bath. I. P. Vladimirov  
and I. P. Zotenko. *Teoriya Prakt. Met.* 11, No. 10-11, 22-7 (1939).—Although, heterogeneity in liquid metal is observed in individual cases, it is not a property inherent to the open-hearth process, but appears as a result of the combination of unfavorable conditions of the melting process. Under identical melting conditions, the degree of heterogeneity in furnaces with deep baths is limited by the same practical conditions of the process as that of the baths in smaller furnaces. A higher degree of the heterogeneity of the compn. appeared always in the bath, when the boiling ceased and the velocity of the combustion of C approached zero. Samples taken from various depths of the bath during a more intensive boiling showed a small degree of heterogeneity. The practical heterogeneity in the compn. of the bath disappeared at a medium intensity of boiling. The "diffusion" theory of the process is true only for static open-hearth baths. This confirms the supposition that the main reasons for heterogeneity are the exceptional slowness of the diffusion process and the static state of the system metal-slag. Eleven references.

W. R. Henn

9

VLADIMIROV, L. P.

"Complex Analysis of the Heterogeneity of the Properties  
of Machine-Construction Production." Cand Tech Sci, L'vov,  
Polytechnical Inst, Ministry of Higher Education USSR, L'vov,  
1954. (KL, No 7, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical  
Dissertations Defended at USSR Higher Educational Institutions  
(14)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6

*Wachtmeister P.*

Method I: The following table indicates the variations in  
the standard parts used for quality control in the production of  
variations, used for quality control in the production of  
parts are described in S. F.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6"

VLADIMIROV, L.P.

Quantitative evaluation of heterogeneous properties of products  
by means of small samplings. Zav.lab. 22 no.8:955-958 Ag '56.  
(MLRA 9:11)

1. L'vovskiy politekhnicheskiy institut.  
(Production control) (Materials--Testing)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6

VLADEK MIRONOV / P.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6"

VLADIMIROV, L.P., kandidat tekhnicheskikh nauk, dotsent.

Statistical control of production operations. Vest. mash.  
36 no.9:67-69 8 '56. (MLRA 9:10)

1. L'vovskiy politekhnicheskiy institut.  
(Production control)

BUKLER, Veniamin Oscherovich; KAZARINOV, Yuriy Mikhaylovich;  
RABINOVICH, Yuriy Izrailevich; ANGELEVICH, Naum  
El'khonovich; VLADIMIROV, L.F., red. ; GIRSHMAN, G.Kh.,  
red.

[Adjustment of radio equipment] Regulirovka radio-  
apparatury. Izd.2., perer. [By] V.O.Bukler i dr. Mo-  
skva, Energiia, 1964. 430 p. (MIRA 17:10)

VLADIMIROV, L.P.; PORTNOY, L.Ya.

Thermodynamic analysis of the desulfurization reaction during  
the blowing of cast iron with gases. Izv. vys. ucheb. zav.;  
chern. met. 7 no.9:29-34 '64. (MIRA 17:6)

1. Komminarskiy gornometallurgicheskiy institut.

VLADIMIROV, L.P.; KONIKOVA, R.S.; KOMAROVA, L.P.

Resistance of polystyrol to aggressive media of coke and coal  
chemical production and to various acids. Plast. massy no.10:  
57-58 '65. (MIRA 18:10)

L 39515-66 EWP(e)/EWT(m)/EWP(j)/T/EWA(h)/ETC(m)-6/EWA(1) Ww/GD/DJ/RM/WH  
ACC NR: AP6014664 SOURCE CODE: UR/0314/65/000/007/0033/0034 26B

AUTHOR: Vladimirov, L. P. (Candidate of technical sciences); Shusterman, M. I.  
(Engineer); Konikova, R. S. (Engineer); Komarova, L. P. (Engineer)

ORG: none

TITLE: Corrosion and erosion resistance of slagosittals in corrosive media

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 7, 1965, 33-34

TOPIC TAGS: corrosion resistance, erosion, bend strength, high temperature strength, hardness, compressive strength, thermal expansion, slag, blast furnace, porcelain, glass, glass property

ABSTRACT: Slagosittal is a solid, opaque and microcrystalline substance with a glass base. Its bend strength and high-temperature strength at 1450 C is three times higher than ordinary glass. Its hardness is greater than that of quartz.

The high compressive strength (16,000 kg/cm<sup>2</sup>), resistance to corrosive media, low coefficient of thermal expansion, high hardness and wear resistance and low cost (35-60 rubles/ton) makes it possible to use slagosittal as a structural and lining material in various branches of industry.

This particular work by the authors delves into the corrosion and erosion resistance of slagosittals in corrosive media of the coke and chemical industry. Erosion resistance was determined in a slag-water pulp under conditions of hydraulic conveyance of granulated blast furnace slag.

Slagosittals grade 109 and 109g and porcelain, produced by the Avtosteklo Plant, were erosion and corrosion tested for 240 hours under varying conditions. UDC: 620.1

Card 1/2

L 39515-66

ACC NR: AP6014664

Gas corrosion testing was carried out in an autoclave under an atmosphere of hydrogen sulfide. Ammonium sulfate, the mother liquor of the plant, was the primary corrosive agent. Regenerated, purified, and concentrated solutions were used. Dry hydrogen sulfide and a mixture of hydrogen sulfide and steam were also used. These tests showed that there is some weight loss in all cases with the greatest loss occurring, naturally, in the concentrated solution. Gas corrosion tested indicated very little loss of weight. Erosion tests of the materials in the slag pulp showed that both grades of slagositalls to undergo the same extent of uniform wear while the porcelain is not quite as good as the slagositalls. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 11, 20 / SUBM DATE: none

Card 2/2 vmb

L 04780-67 EWT(m)/EWP(t)/ETI  
ACC NR: AP6023443

IJP(c)  
(A, N)

JD/WB

SOURCE CODE: UR/0369/66/002/003/0291/0294

AUTHOR: Vladimirov, L. P.

26

B

ORG: Kommunar Mining and Metallurgical Institute (Kommunarskiy gornometallurgicheskiy institut)

TITLE: Anisotropy of the corrosion properties of alloy steel

SOURCE: Fiziko-khimicheskaya mehanika materialov, v. 2, no. 3, 1966, 291-294

TOPIC TAGS: chromium steel, alloy steel, corrosion rate, metal cutting, plane geometry/  
Kh17 chromium steel

ABSTRACT: The corrosion properties of a metal performing in a given aggressive medium may differ markedly depending on the orientation of the cutting of specimens of rolled steel; this is not a matter of theoretical interest alone, since, obviously, knowledge of the anisotropy of these properties provides the key for the correct marking and cutting of rolled steel. To verify this, the authors performed a special experiment, using a round rod of rolled Kh17 chromium steel of 50 mm diameter. A segment of this rod, of a length equal to its diameter, was cut up into radial, axial and tangential specimens differing from each other solely in the

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L 04780-67

ACC NR: AP6023443

direction of metal fibers (Fig. 1).



Fig. 1. Cutting diagram for specimens taken from a rod of Kh17 steel

1- radial; 2-axial; 3-tangential

These specimens were then carefully measured, degreased and weighed and placed inside a bakelite-coated cup which, after being filled to 2/3 of its volume with a highly aggressive medium (mother liquor of the sulfate department of a low-temperature carbonization plant), was hermetically sealed and mounted in a rotating device so as to assure a vigorous circulation of the solution with respect to the specimens at a temperature of as much as 85°C, for periods

Card 2/3

L 04780-67  
ACC NR: AP6023443

of progressively increasing duration (up to 10 days), with periodic extraction, rising, drying and weighing of the specimens. Findings: The existence of the anisotropy of not only mechanical but also corrosion properties of alloy steel, depending on the orientation of fibers in the rolled metal, is experimentally confirmed. Of the three variously oriented specimens of Kh17 steel the radial specimen proved to be the most susceptible to corrosion and the tangential specimen, the least susceptible. Thus, the corrosion rate of the radial specimen is 1.3 times as high as that of the tangential specimens of the same steel under completely identical conditions of rupture. Fiber orientation proves to be a more essential factor than the difference in composition and density between the axial and peripheral zones of the rod so far as the increase in the corrosion resistance of steel is concerned. Orig. art. has: 3 figures.

SUB CODE: 13, 11/ SUBM DATE: 23Aug65

Card 3/3 *pla*

L 07933-67 EWT(m)/EWP(t)/ETI IJP(e) JD/JG/WB

ACC NR: AP6007114

SOURCE CODE: UR/0129/66/000/002/0048/0049

AUTHORS: Vladimirov, L. P.; Shusterman, M. I.; Konikova, R. S.; Komarova, L. P.

ORG: Kommunarsk Mining-Metallurgical Institute (Kommunarskiy gorno-metallurgicheskiy institut)

69  
59

TITLE: Corrosion and erosion resistance of alloyed steels

B

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1966, 48-49

TOPIC TAGS: steel alloy, corrosion resistance, chromium containing alloy, molybdenum containing alloy, nickel containing alloy, EROSION, CORROSION RESISTANT ALLOY

ABSTRACT: A study was made of the possibility of replacing costly and scarce steels with cheaper varieties and still obtaining highly corrosion- and erosion-resistant alloys. In this investigation tests were conducted on chrome-nickel-copper, chrome-nickel-titanium, and chrome-nickel-molybdenum steels, and steels with reduced nickel content, chromium steels without nickel, bimetal from steel St. 3ap/and 08Kh13, and for comparison purposes, steels St. 3, 14KhGS, titanium, and carbide-chromium alloys. It was found that not one of the tested materials exhibits absolute stability in the mother liquor at high or low temperature. Alloy VT1 demonstrated the best stability at high and low temperatures when combined with a carbide-chromium alloy with 15% Ni. Highly-alloyed chrome-nickel steels showed stability in heated mother liquor; particularly stable were steels Kh23N28M3D3T, Kh17N13M2T, and Kh25N15MDA. The

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UDC: 669.14.018.84:620.193.47

L 07933-67

ACC NR: AP6007114

corrosion rate of these materials was less than 0.1 mm/year. Steels not alloyed with titanium, steels with low content of chrome and nickel and with not greater than 2% molybdenum content can be used for work in the mother liquor, but they are less stable than the alloys listed above. Other materials tested were found to be unsuited for use in these conditions. Orig. art. has: 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001

Card 2/2 -eg/k

VLADIMIROV, L.P., SHUSTERMAN, M.I., KONIEKOVA, R.S., KOMAROVA, L.P.

Testing the resistance to corrosion and erosion of SNI plastic  
in the aggressive media of coke chemicals production. Plast.masy  
no.6:54-56 '64. (MIRA 18:4)

I. 20242-65 EWP(e)/EWT(m)/EPF(n)-2/EWA(d)/EPR/EWP(t)/EWP(b) Ps-4/  
Pu-4 MJW/JD/JG/NB/AT/WB  
ACCESSION NR: AP5001593

S/0226/64/000/006/0068/0070

AUTHOR: Vladimirov, L. P.; Shusterman, M. I.; Konikova, R. S.; Komarova, L. P.

TITLE: Corrosion and erosion resistance of chromium-carbide alloys in multicomponent aggressive media

SOURCE: Potoshkovaya metallurgiya, no. 6, 1964, 68-70

TOPIC TAGS: chromium carbide, chromium carbide alloy, alloy corrosion, alloy erosion, alloy property, chromium carbide alloy corrosion, chromium carbide alloy erosion

ABSTRACT: The corrosion and erosion of chromium-carbide alloys (83% Cr<sub>3</sub>C and 15% Ni) in complex aggressive media has been investigated. The aggressive media tested include: acid mother liquor of the coal tar industry, alkali solutions, and dry and humid hydrogen sulfide. The alloy displayed a high corrosion resistance both at normal and elevated temperatures (85—105°C). Corrosion rates varied from 0 to 0.022 g/m<sup>2</sup>·hr in unregenerated alkali solution with pH over 12 at 20°C to 0.030 (0.037 mm/year) g/m<sup>2</sup>·hr in mother liquor with pH = 1.1

Card 1/2

20242-65  
ACCESSION NR: AP5001593

at 65°C. The corrosion rate in hydrogen sulfide at 105°C was 0.002 mm<sup>2</sup>·hr or 0.003 mm/year. Thus, the corrosion resistance of chromium-carbide alloy exceeds by several times that of stainless steel Kh18N9T and even titanium alloy BT-1117. Because of its high hardness, strength, anti wear, corrosion, and erosion resistance, the alloy can be used for ventilation parts and shaftless valves working in multi-component aggressive media. (rig. art. nra: 1 figure and 1 table.)

ASSOCIATION: Kommunarskiy gorno-metallurgicheskiy institut (Kommunarsk Mining-Metallurgical Institute); Kommunarskiy koksokhimicheskiy zavod (Kommunarsk Coke-Chemical Plant)

SUBMITTED: 12Sep63

ENCL: 00

SUB CODE: MV

NO RA/F SOV: 004

OTHER: 000

ATD PRESS: 3163

Card 2/2

VLADIMIROV, L.P., kand. tekhn. nauk; SHUSTERMAN, M.I.; KONIKOVA, R.S.;  
KOMAROVA, L.P.

Corrosion and erosion resistance of VT-1 titanium alloys in  
multicomponent aggressive media. Koks i khim. no.10:49-51 '63.  
(MIRA 16:11)

1. Komunarskiy gornometallurgicheskiy institut (for Vladimirov).  
2. Komunarskiy koksokhimicheskiy zavod (for Shusterman, Konikova,  
(Komarova).

VLADIMIROV, Leonid Pavlovich; KOBUS, Yu.O., inzh., red. vypuska;  
FUNER, P.Ya., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Preventive control in industrial production] Pidupreditol'-nyi kontrol' v proizvodstve. Moskva, Mashgiz, 1962. 135 p.  
(MIRA 15:9)

(Production control)

VLADIMIROV, L.P., kand.tekhn.nauk, dotsent

Extent and periodicity of the control of high-production  
operating processes. Vzaim.i tekhn. izm.v mashinostr.;  
mezhvuz.sbor. no.3:286-293 '61. (MIRA 14:8)  
(Metal cutting—Quality control)

25(5)

SOV/28-59-3-2/25

AUTHOR: Vladimirov, L.P., Candidate of Technical Sciences

TITLE: Evaluation of the Uniformity of Properties of Industrial Production (Otsenka ednorodnosti svoystv promyslennoy produktsii)

PERIODICAL: Standartizatsiya , 1959, Nr 3, pp 8 - 12 (USSR)

ABSTRACT: Standards for industrial products often do not indicate the required degree of uniformity of properties of products or raw materials, and it is customary to give the quality characteristics of products. The author thinks that a method of quantitative evaluation of products uniformity must be developed, with figures that could be used for clear indications in standards and reflect the operation of rows of similar machine tools or production lines. He appreciates the article by P.S. Livshits [Ref 2] who suggested using the known statistical characteristics for the purpose, but does not consider as practical

Card 1/2

SOV/28-59-3-2/25

Evaluation of the Uniformity of Properties of Industrial Production

the formula suggested by P.S. Livshits for the calculation of the uniformity factor. There are 2 tables, 1 graph and 3 Soviet references.

ASSOCIATION: L'vovskiy politekhnicheskiy institut (L'vov Polytechnical Institute)

Card 2/2

VLADIMIROV, L. P.

Vladimirov, L. P. (L'vov). Use of the Average Sample Method in Machine-Building p. 139

Interchangeability, Accuracy and Measuring Methods in Machine Building, Moscow, Mashgiz, 1958, 251 pp. (Sbornik Nauchno-tekh. obshch. mashinostroitel'noy promyshlennosti, Leningradskoye oblast pravleniya, kn. 47).

This collection of articles deals with the topics discussed at the 3rd Leningrad Sci. and Engineering Conference on Interchangeability, accuracy and Inspection Methods in Machine-building and Instrument-making, held 18-22 Mar 1957.

VLADIMIROV, L.P. (Lvov)

Applying the method of mean sampling in machine building. [Izd.]  
LOHITOMASH 47:139-143 '58. (MIRA 11:10)  
(Production control) (Sampling (Statistics))

Vladimirov, L. P.

137-58-1-1726

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 234 (USSR)

AUTHOR: Vladimirov, L. P.

TITLE: Inhomogeneity of the Properties of Axles Forged From the Same Heat (Neodnorodost' svoystv osey, otkovannykh iz metalla odnoy i toy zhe plavki)

PERIODICAL: Nauchn. zap. L'vovsk. politekhn. in-t, 1956, Nr 43, pp 150-157

ABSTRACT: Variation in the mechanical properties ( $\sigma_b$ ,  $\sigma_s$ ,  $\delta$ ,  $\psi$ ,  $a_k$ ) of locomotive axles (A) in a lot of 81 forged from steel containing (in percent) 0.41 C, 0.58 Mn, 0.22 P, and 0.36 S, was investigated statistically. The heat had the following mechanical properties (according to the rating sheet):  $\sigma_b = 5.82 \text{ kg/mm}^2$ ,  $\delta = 22 \text{ percent}$ ,  $a_k = 6.83$  (average of 4 specimens) and 6.20 (minimum value). After forging, the A were subject to normalization and tempering. Investigations showed that the  $\sigma_b$  of A fluctuated in the range of 53-60  $\text{kg/mm}^2$  with a mean value of 57  $\text{kg/mm}^2$  and an arithmetic average very similar thereto. Fluctuations in  $\delta$  and  $\psi$  were even more significant and, measured percentagewise, were 36 and 43.5, respectively. The degree of inhomogeneity of the properties of A in a single heat was greater than the degree of

Card 1/2

137-58-1-1726

Inhomogeneity of the Properties of Axles Forged From the Same Heat

nonuniformity of the properties of the blanks. The failure of the average value of the mechanical properties of A to agree with the mean for the heat is the result of the fact that the specimen taken during the heat was not representative, as it was taken from the top end of a billet from a bloom having elevated strength and reduced ductility characteristics, and did not characterize the average properties of the bloom. It is proposed that GOST 4728-53 be re-examined insofar as it describes the selection of specimens for mechanical testings of metals.

M.Sh.

1. Steel-Forgings--Properties    2. Steel--Forgings--Inspection

Card 2/2

Vladimirov, L. P.

137-1957-12-23418

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 83 (USSR)

AUTHOR: Vladimirov, L. P.

TITLE: An Investigation of the Non-uniformity of Ingots Cast From Metal of the Same Heat. (Issledovaniye neodnorodnosti slitkov, otlitykh iz metalla odnoy plavki)

PERIODICAL: Nauchn. zap. L'vovsk. politekhn. in-t, 1956, Nr 43, pp 111-129

ABSTRACT: Nine heats of killed carbon steel were studied in order to evaluate the effectiveness of the existing method of inspecting the heat by means of samples taken from the head end of the first sound bloom of one of the ingots (I). The templets from the second, the central and the next to the last ingot (weighing 6-8 t) were divided into two groups of samples. One group was studied in its raw condition, the other was investigated after it had been normalized. The investigation showed considerable fluctuations in the chemical composition and in the mechanical properties within a single heat. Owing to the oxidizing action of FeO, the carbon content usually decreased in the course of the casting process. The Mn content is increased initially but then diminishes with decreasing temperature. The Si content decreases

Card 1/2

137-1957-12-23418

An Investigat'n of the Non-uniform. of Ingots Cast From Metal (cont.)

insignificantly, whereas the content of P increases (sometimes by 0.018 percent) through its reduction from the slag. The changes in the mechanical properties do not occur systematically, since they are the result of the combined influence of the C, Mn, Si, and P. Samples taken from the head portion of the I, where the liquating alloys are concentrated, demonstrate greater hardness and decreased plasticity and are not representative of the properties of the entire I. The mechanical properties of the metal are somewhat equalized by the normalizing process. The method of evaluating the heat by selective testing of samples taken from the head portion of one I is not considered to be representative.

G. S.

1. Castings-Properties-Deviation
2. Metallurgical heats-Applications

Card 2/2

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6

✓ Quantitative Evaluation of the Non-uniformity of Product  
Properties from the Results of Small Selections. L.P.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6"

KRESTOVNIKOV, Aleksandr Nikolayevich; VLADIMIROV, Leonid Pavlovich;  
GULYANITSKIY, Boris Stepanovich; FISHER, Aleksandr  
Yakovlevich; YEGOROV, A.M., red.; ARKHANGEL'SKAYA, M.S.,  
red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Handbook on calculations of equilibrium of metallurgical  
reactions; rapid methods] Spravochnik po raschetam ravnovesii  
metallurgicheskikh reaktsii; uskorennye metody. [By] A.N.  
Krestovnikov i dr. Moskva, Metallurgizdat, 1963. 416 p.  
(MIRA 16:7)

(Metals--Thermodynamic properties)  
(Chemistry, Metallurgy--Handbooks, manuals, etc.)

L 30000-55 EWT(h)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(z)/  
EWP(w)/EWA(d)

ABSTRACT NUMBER: A14-117.

SEARCHED INDEXED SERIALIZED FILED

TITLE: Hardening of cast austenitic steel by the phase working method

SOURCE: Soveshchaniye po uprochneniyu detaley mashin, 1962. Protsessy uprochneniya detaley mashin (processes of hardening of machine parts). Talyi Soveshchaniye, Moscow, Izd-vo Nauka, 1964, 27-32

TOPIC TAGS: cast steel, austenitic steel, cast austenitic steel, phase working,  
steel hardening, steel grain structure, steel mechanical property

ABSTRACT: The term phase working means to alter the mechanical properties of a metal or alloy by direct or reverse phase transformation. This phenomenon appears to the greatest extent when the volume changes during crystal lattice transformation. The aim of the present investigation was to determine the possibility of hardening cast austenitic alloys by phase working and to determine the hardening characteristics peculiar to cast steel. Two alloys were tested: 1) C-0.39%, Si-1.54%, Mn-0.61%, Cr-7.04%, Ni-17.75%, and 2) C-0.05%, Si-0.5%, Mn-0.4%, Cr-0.1%, Ni-27.0% and Ti-1.5%. This chemical composition permitted determination of the effect of the cast structure on alloy hardening by phase working. The direct and

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L 39999-65

ACCESSION NR: AT4049810

reverse martensitic transformation temperature interval was determined with a D. S. Shlepyakov and V. I. Likhachev magnetometer. The alloys were cast in a mold, annealed and cooled from 500°C. In all the trials, they were quenched from 400°C in water. The samples were then annealed at 300°C for 1 hour. The samples containing Ti could not be tested with the above magnetometer. These samples were cooled to -196°C and were then placed in a furnace heated to 120°C for 10 minutes, then water quenched, then quenched again in liquid nitrogen for 10 minutes, after which they were water quenched again. The samples were then annealed at 300°C for 1 hour. This was followed by a final annealing at 300°C for 1 hour. After each annealing cycle, the samples were tested with the magnetometer. The results show that a cast Ti-10% Al alloy shows a continuous drop in resiliency as the number of phase working cycles increases. Further tests of the alloys showed that higher strength is obtained after phase working when the initial yield point is higher. The authors conclude that a coarse grain structure in cast alloys and dendritic liquation are important factors in the development of apparent and reverse martensitic transformation, and that the effect of phase working. As a result, the apparent

Card 2/3

L 3999-65

ACCESSION NR: AT4049810

working, the strength of cast steel increases 1.5-2 times more than that offorged steel, although the absolute value remain lower by 10-20%. Cast steel after working has a larger grain size and dendritic heterogeneity. This article has 3 figures.

ASSOCIATION: None

SUBMITTED: 21May64

ENCL: 00

SUB CODE: MM

NO REF Sov: 002

OTHER: 000

Card 3/3 *km*

Vladimirov, L. S.

SHUL'MEYSTER, B.I., inzhener; VLADIMIROV, L.S.

Repairing main journals of crankshafts, Mashinostroitel' no.5;  
30-34 My '57. (MIR 10:6)  
(Crankshafts--Maintenance and repair)

MYASOYEDOV, A.N., inzh.; VLADIMIROV, L.S.

Machining of crankshaft journals in marine engines. Proizv.-tekhn.  
sbor no.1:90-100 '59. (MIRA 13:9)

1. Tsentral'noye proyektno-konstruktorskoye byuro.  
(Marine engines) (Cranks and crankshafts)

L 23636-66 ENT(m)/EMA(d)/T/EWP(t) IJP(c) JD  
ACC NN: AP6005285

SOURCE CODE: UR/0413/66/000/001/0030/0030

INVENTOR: Gorbach, V. G.; Vladimirov, L. R.

32

B

ORG: none

18 18

18

TITLE: Heat treating cast austentic steels. Class 18, No. 177442  
[announced by the Institute of Physics of Metals, AN SSSR (Institut fiziki metallov AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki,  
no. 1, 1966, 30

TOPIC TAGS: heat treatment, metal heat treatment, phase hardening,  
metal hardening, annealing, austenitic steel, cast steel

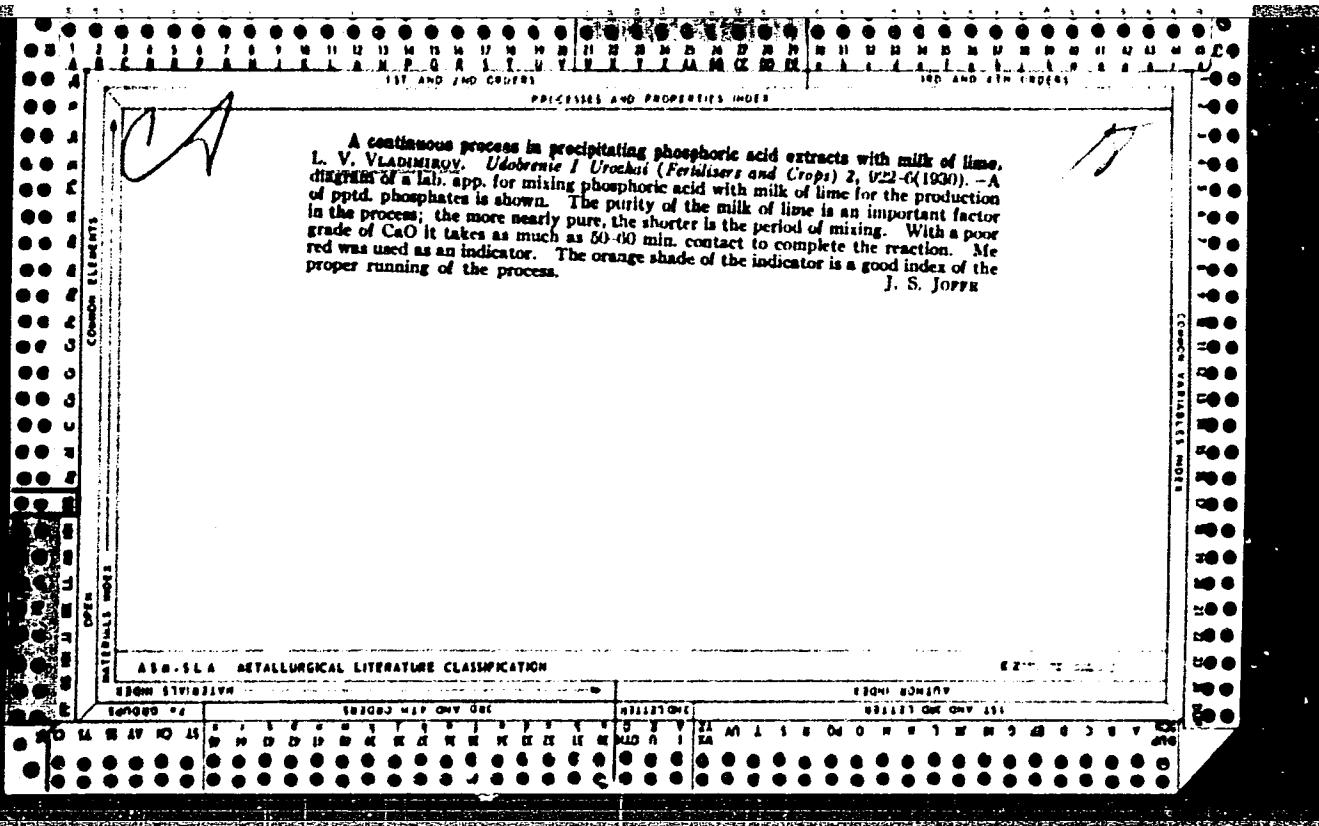
ABSTRACT: An Author Certificate has been issued describing a method  
of heat treating cast austenitic steels including phase hardening and  
recrystallization annealing. To improve the mechanical properties, the  
steel, following recrystallization annealing, is subjected again to  
phase hardening. [LD]

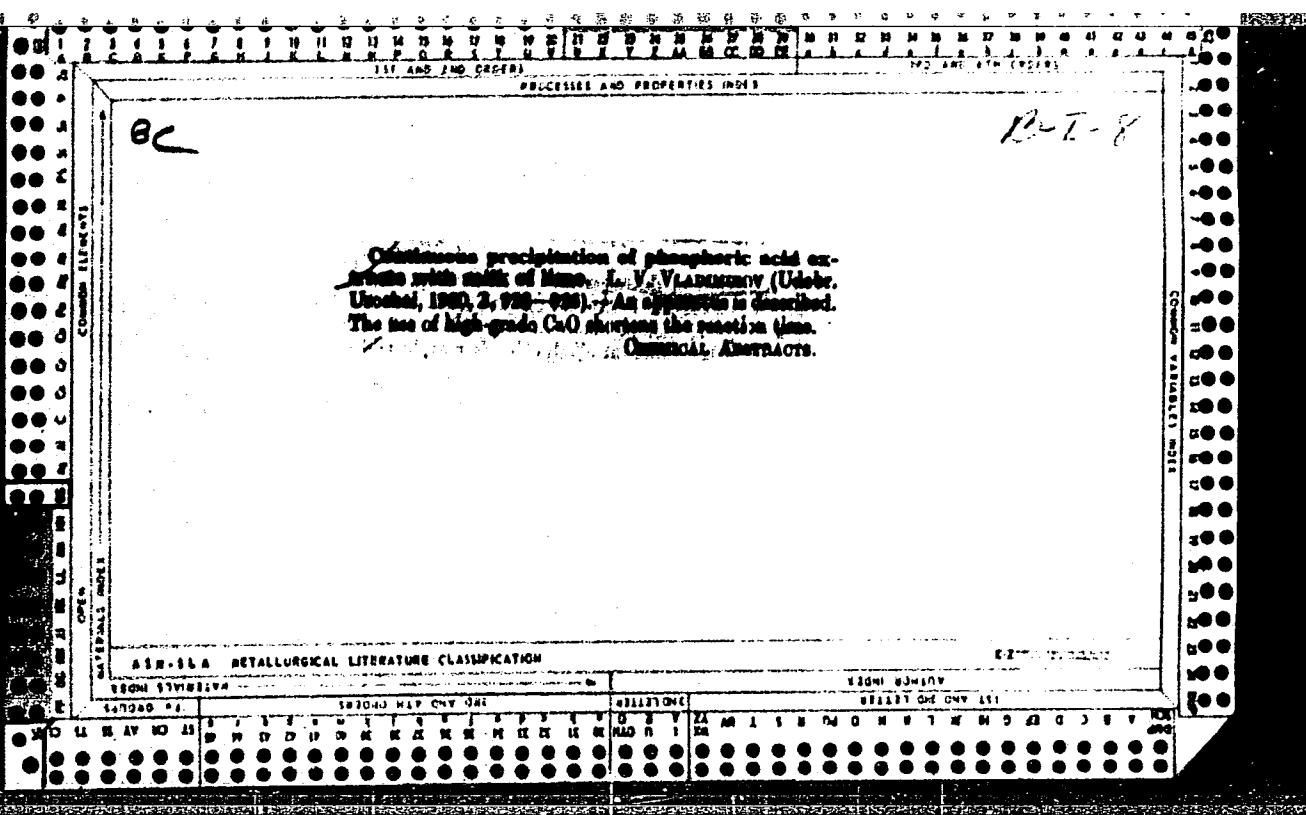
SUB CODE: 11/ SUBM DATE: 17Jan64/

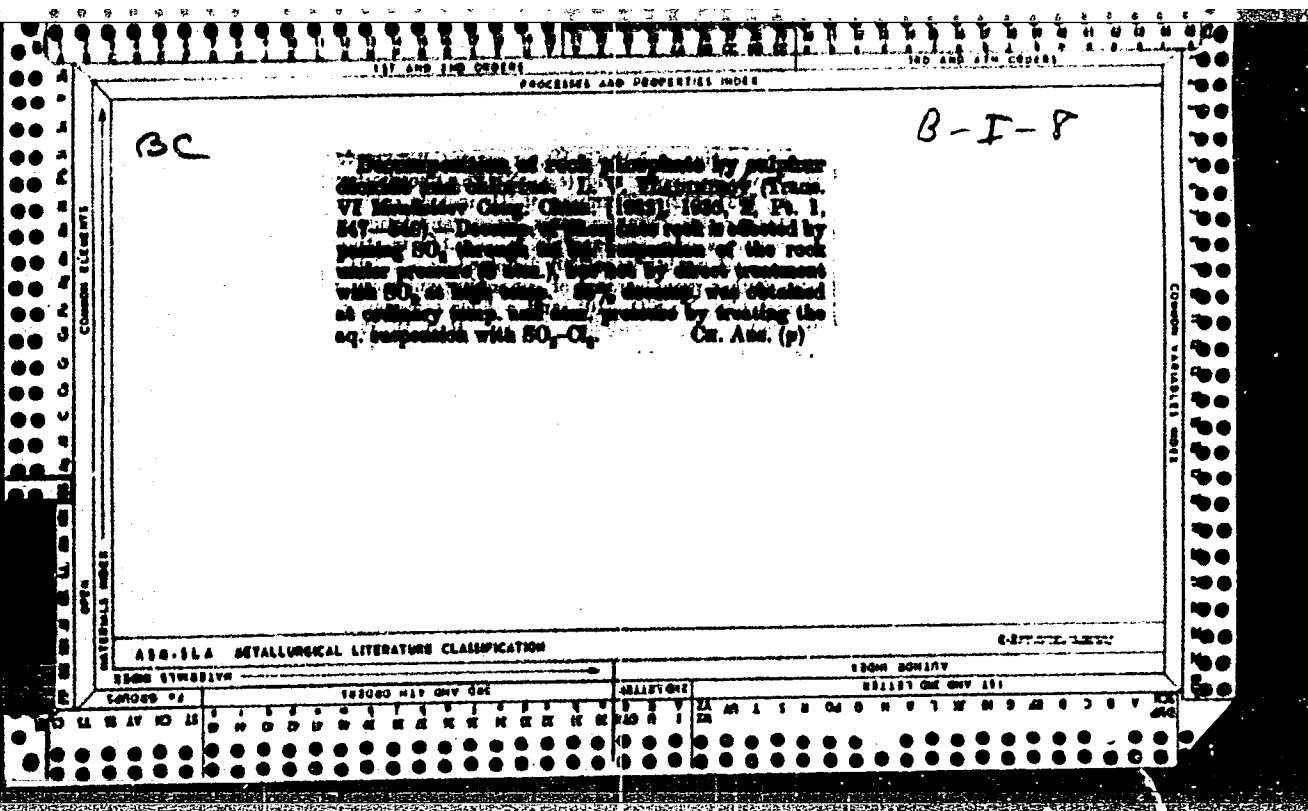
Card 1/1dda

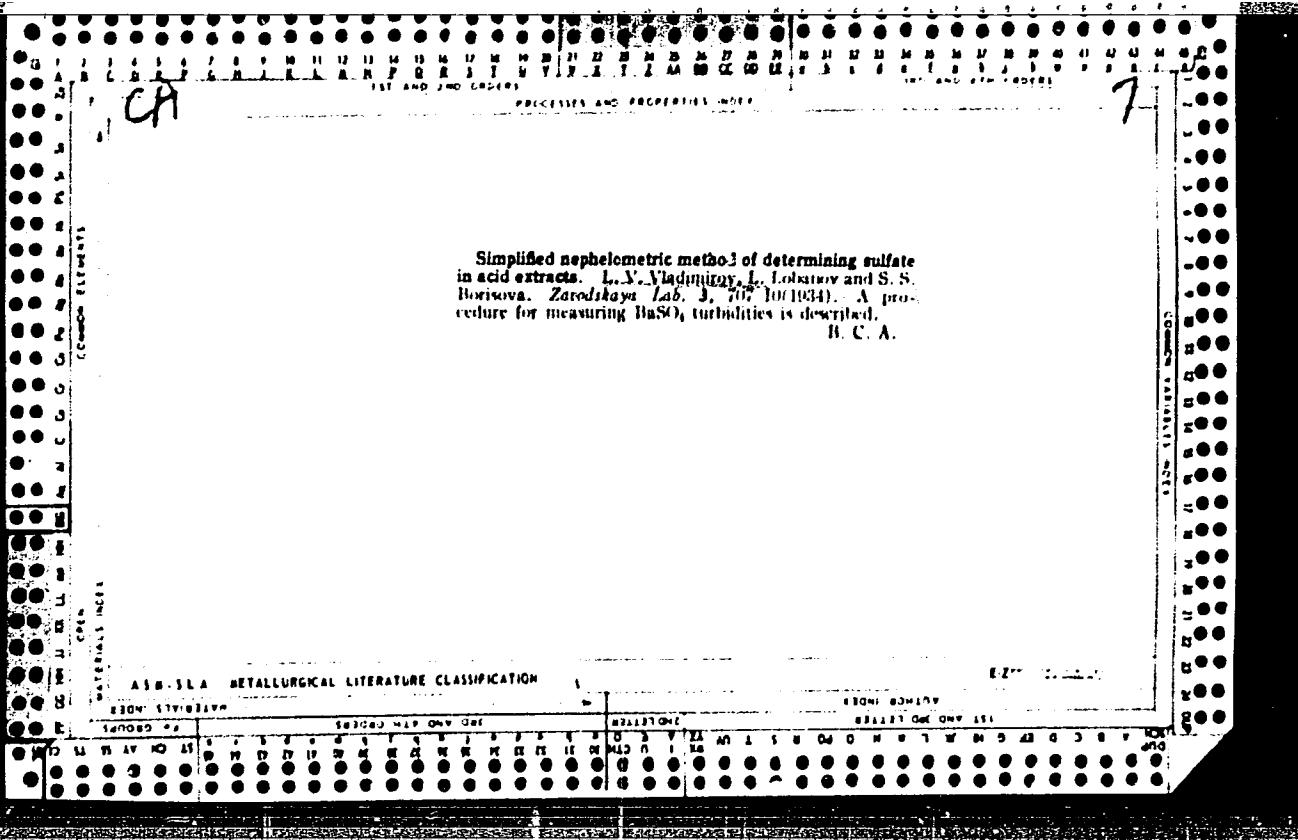
UDC: 621.785.79.669.15-194.56

2-









*CC*

Determination of phosphoric acid and the sum of aluminum and iron oxides in flotation phosphorites. L. V. Vladimirov. Zaretskaya Lab. 3, 890-11 (1934). The solv. of phosphorites in HCl + HNO<sub>3</sub> depends on the degree of their fineness. Hence for the detn. of Al<sub>2</sub>O<sub>3</sub> + Fe<sub>2</sub>O<sub>3</sub>, the product must be decompr. by fusion with Na<sub>2</sub>CO<sub>3</sub>. The Bottger citrate and the Woytow methods of detn. of P<sub>2</sub>O<sub>5</sub>, without the sepn. of SiO<sub>2</sub>, give high values from 0.23 to 4.17%, depending on the compn. of the phosphorites. Rapid and accurate results in the detn. of P<sub>2</sub>O<sub>5</sub> in phosphorites contg. sol. SiO<sub>2</sub> are obtained by the following procedure of Lobanov: Decomp. a sample with HCl + HNO<sub>3</sub>, dil., filter, evap. the filtrate to about 10 cc., add 15 cc. of 50% NH<sub>3</sub> citrate soln., 15 cc. of std. NH<sub>4</sub>Cl

1 soln. and 20 cc. of 25% NH<sub>3</sub>, let stand 15 min., filter off SiO<sub>2</sub>, wash with a mixt. of 2.5 cc. NH<sub>3</sub> and 5 cc. of 50% NH<sub>4</sub> citrate in 100 cc. H<sub>2</sub>O, and ppt. the diluted filtrate with alk. Mg mixt.

Chas. Blane

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

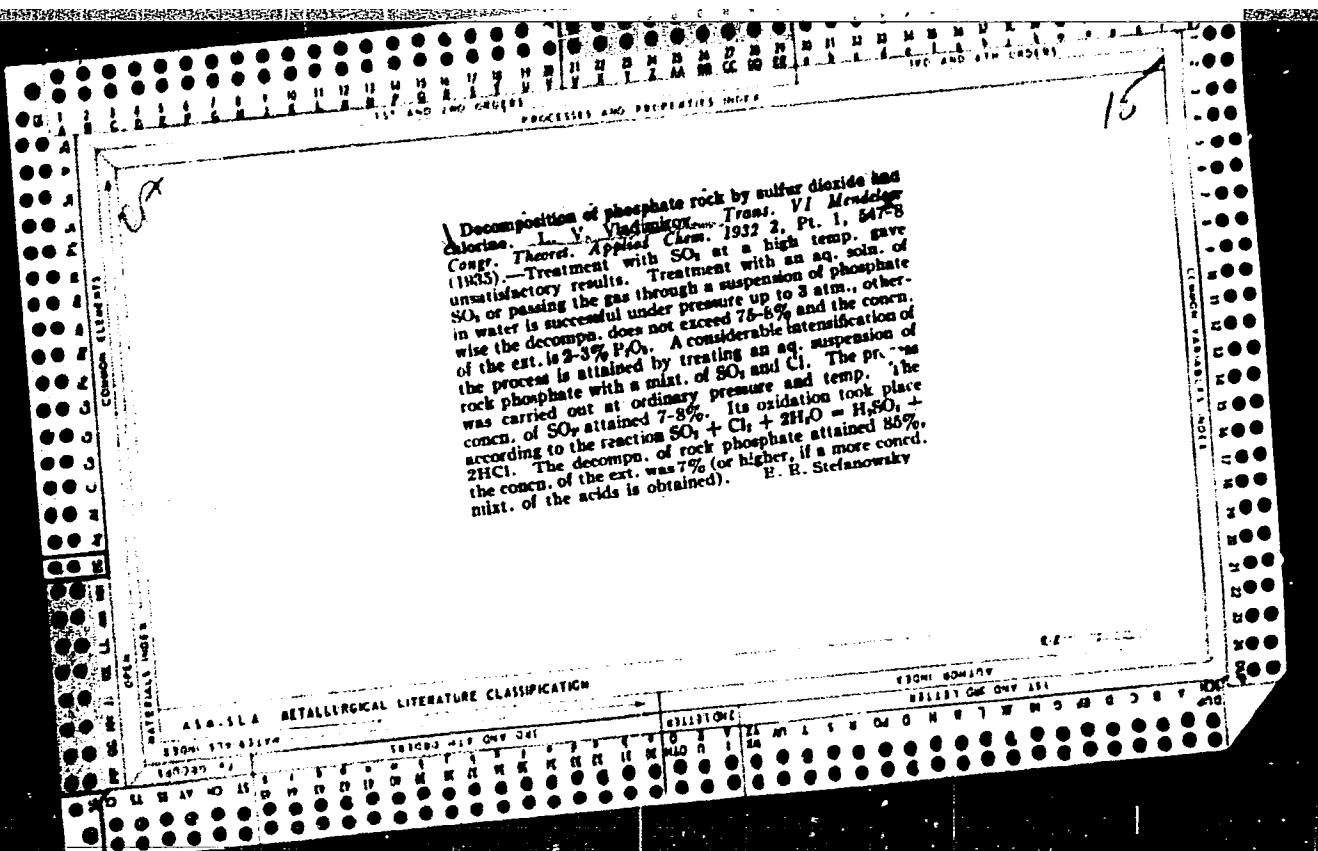
*CH**18*

Properties and properties index  
Crystallization of phosphoric acid obtained by the ther-  
moelectric process. I. V. Vladimirov, M. O. Brun and  
Z. F. Shatorkina. *Metall. Udobreniya i Instrukcii po*  
I. No. 3, 74-81 (1955). Cryst.  $H_3PO_4$  free from As and  
Pb was obtained in the lab. from acid, d. 1.72-1.87, at 10  
°C with energetic stirring and rapid removal of the mother  
liquor. About 20 references. Chas. Blane

## ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

EX-REF LIBRARY

SEARCHED	SEARCHED AND INDEXED	SEARCHED AND SERIALIZED	FILED
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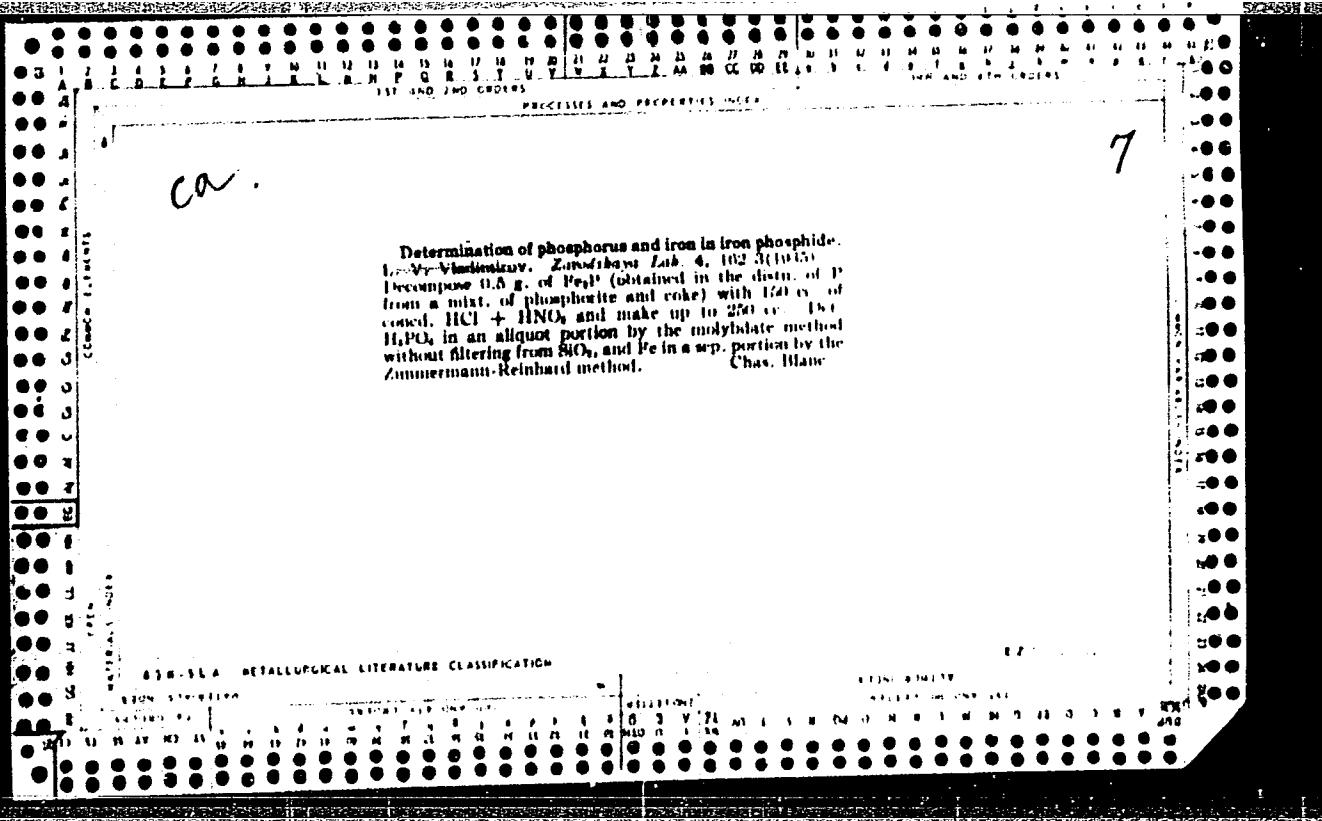


CR

7

Determination of insoluble residue in phosphorites.  
L. V. Vladimirov, Zarodskaya Lab. 4, 158-60(1935).—  
In the detn. of insol. residue in phosphorites equally good  
results were obtained by substituting 10% HCl for aqua  
regia.  
Chas. Blanc

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION



Modified molybdenum method for determining phosphoric acid in mineral phosphates L. A. Vladimirov and I. N. Lobanov. *Zashchita Rab.* 4, 892-9 (1935).  
A few minor modifications are made in the method of J. O. Handy. Chas. Blanc

ASIN-SEA METALLURGICAL LITERATURE CLASSIFICATION

10  
The quality of superphosphate on its arrival at the place  
of use. L. V. Vladimirov, *J. Chem. Ind.* (U. S. S. R.)  
15, No. 8, 208 (1938). Superphosphate which has been  
transported a long distance contains more available  $P_2O_5$   
and less free acidity than when it started, but the phys.  
properties are often worse. This effect can be prevented  
by addn. of bone meal before the trip. H. M. L.

AS-51A METALLURGICAL LITERATURE CLASSIFICATION

(a)

b1

Raising the quality of superphosphate and decreasing  
the time of its storage. L. V. Vladimirov, E. R. Babkin,  
S. E. Us, B. E. Dol'skiy and E. A. Kurnikova. *J. Chem.*  
*Ind. (U. S. S. R.)* 15, No. 9, 19-22 (1938). The Soviet  
method of manuf. is described. Stress is laid on grinding  
the product and adding bone meal to it. H. M. L.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

EZ

CA

15  
The addition of bone meal to superphosphate when loading it in railway cars. L. V. Vladimirov. *J. Chem. Ind. (U. S. S. R.)* 17, No. 12, 33-4 (1940).—Addn. of bone meal lowers the free  $H_2PO_4$ , increases the available  $P_2O_5$  and improves the phys. properties of the superphosphate during transit. H. M. Lester

## ASH-SEA METALLURGICAL LITERATURE CLASSIFICATION

ECONOMIC

TECHNICAL

INDUSTRIAL

EDUCATIONAL

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6

VLADIMIROV, L.V., kandidat tekhnicheskikh nauk.

Mineral fertilizers. Khim.v shkole 9 no.4:3-15 Jl.-Ag '54.(MIRA 7:8)

Mineral fertilizers. Khim.v shkole 9 no.4:3-15 Jl.-Ag '54.(MIRA 7:8)  
(Fertilizers and manures)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210016-6"

VLADIMIROV, L.V.

In memory of Ergard Viktorovich Britske; 1877-1953 Zhur.prikl.  
(MLRA 7:8)  
khim. 27 no.7:693-698 Jl '54.  
(Britske, Ergard Viktorovich, 1977-1953)

SOV/63-4-2-26/39

5(0)

AUTHOR: Vladimirov, L.V.  
TITLE: Scientific-Technical Conference on Modern Methods of Analytical Control  
PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 2,  
pp 275-277 (USSR)

ABSTRACT: In November 1958 a scientific-technical Conference on modern methods of analytical control in the basic chemical industry took place in Moscow. It was convened by the VKhO imeni Mendeleyev and attended by 175 persons from 87 chemical plants, scientific research, educational and designing institutes. The following reports were read: "The Present State of Analytic Control at the Plants of the Nitrogen Industry" by A.A. Il'yinskaya, GIAP; "Devices of Automatic Analytic Control Developed by the Joint Designing Bureau of the Automation of the Chemical Industry" by A.K. Mayzel'; "Some General Problems Studied in the Examples of the Production Control of Phosphoric Fertilizers" by M.L. Chepelevetskiy, NIUIF; "Accelerated Methods of Analysis in the Production Control of Sulfuric Acid and Fertilizers" by L.V. Vladimirov, NIUIF; "The Application of Chromatography in the Basic Chemical Industry" by F.M. Shemyakin; "The Application of Modern Methods of Analysis in the Production Control

Card 1/3

SOV/63-4-2-26/39

Scientific-Technical Conference on Modern Methods of Analytical Control

of Chromium Salts, Amorphous Boron and Alkali Metals" by I.B. Popova, UNIKhim; "A Method of Analysis of the System  $N_2O_5-N_2O_4-NO-H_2O$ " by S.S. Markov and Ye.V. Valikova, GIPKh; "The Application of Production Polarography for the Determination of Admixtures in Substances of a High Degree of Purity" by Yu.I. Vaynshteyn, IRYeA. N.M. Dyatlova (Berez-nikovskiy khimicheskiy kombinat - Berezniki Chemical Combine), T.I. Shatrovskaya (Gorlovskiy azotno-tukovyy zavod - Gorlovka Nitrogen-Fertilizer Plant), M.S. Belinskaya (Stalinskiy zavod khimicheskikh reaktivov - Stalino Plant of Chemical Reagents), M.M. Korosteleva (Dneprodzerzhinskiy azotno-tukovyy zavod - Dneprodzerzhinsk Nitrogen-Fertilizer Plant) and T.G. Repenkova (Voskresenskiy khimicheskiy kombinat - Voskresensk Chemical Combine) communicated on the work of plant laboratories. In the OKB avtomatiki khimicheskoy promyshlennosti (Joint Designing Bureau for the Automation of the Chemical Industry) various devices have been developed: the portable gas analyzer TGF, the stationary gas analyzer SGF, the depolarization gas analyzer DPG-5-52, the electrochemical gas analyzer EKhG, the photocolorimetric analyzer FKZh,

Card 2/3

SOV/63-4-2-26/39

Scientific-Technical Conference on Modern Methods of Analytical Control

the gas analyzers GKP-4, GKP-5, EKU, the thermochemical gas analyzer TKhG-5, the infrared gas analyzer GIP-5, the automatic photocolorimeter AFK-3 and the magnetic gas analyzer MGK-2.

Card 3/3

5 (0)

AUTHOR: Vladimirov, L. V.

SOV/32-25-4-66/71

TITLE: Scientific-Technical Conference on Modern Methods of Analytical Control in the Chemical Industry (Nauchno-tehnicheskoye soveshchaniye po sovremennym metodam analiticheskogo kontrolya v khimicheskoy promyshlennosti)

PERIODICAL: Zavodskaya Laboratoriya. 1959, Vol 25, Nr 4, pp 507 - 509 (USSR)

ABSTRACT: The Vsesoyuznoye khimicheskoye obshchestvo im. D. I. Mendeleyeva (All-Union Chemical Association after D. I. Mendeleyev) convened the conference mentioned in the title in November 1958. There were 175 participants representing 87 organizations. At the conference, which was presided over by Professor Yu. Yu. Lur'ye, the following papers were read: A. A. Il'inskaya "The Present State of Analytical Control in the Plants of the Nitrogen Industry"; A. K. Mayzel' "Instruments for Automatic Control Developed by the OKB avtomatiki khimicheskoy promyshlennosti" (OKB of Automation in the Chemical Industry); M. L. Shepelvetskiy "Some General Questions Discussed With Examples for the Checking of the Production of Phosphorus Fertilizers"; L. V. Vladimirov "Accelerated Analysis Methods in Production Control for Sulfuric Acid and Fertilizers"; F. M. Shevyakin "Use of Chromatography in the Basic

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Chemical Industry"; I. B. Popova "The Use of Modern Analysis Methods in Production Control of Chromates, Amorphous Boron, and Alkaline Metals"; S. S. Markov and Ye. V. Valikova "Method of Analyzing the System  $N_2O_5 \cdot N_2O_4 \cdot NO \cdot H_2O$ "; Yu. I. Vaynshteyn "Use of Differential Polarography for the Determination of Impurities in Substances of a High Degree of Purity"; etc. The contributions made by N. M. Dyatilova (Berezinskii khimicheskii kombinat) (Berezinski Chemical Kombinat), T.I. Shatrovskaya (Gorlebskiy azotno-tukovyj zavod) (Gorlebsk Nitrogen Fertilizer Plant), M. S. Belinskaya (Stalinskij zavod khimicheskikh reaktivov) (Stalino Chemical Reagents Plant), M. M. Korosteleva (Dneprodzerzhinskii azotno-tukovyj zavod) (Dneprodzerzhinsk Nitrogen Fertilizer Plant), and T. G. Repenkova (Voskresenskiy khimicheskii kombinat) (Voskresensk Chemical Kombinat) were particularly valuable in view of the rich material presented in them. On the basis of the papers read it is stated that in recent years many new chemical and physico-chemical analysis methods have been developed and introduced. The various methods and the plants mentioned above which are using them are mentioned. Inter alia, the follow-

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ing analysis methods are discussed: Complexometric (for the determination of iron, zinc, and nickel in catalysts, used at the Lisichanskiy khimicheskiy kombinat (Lisichansk Chemical Kombinat)), photo-colorimetric, luminescence, chromatographic, flame-photometric, and potentiometric methods. A number of new apparatus for the automation of control devices and the control of industrial processes have been developed by the konstruktorskoye byuro avtomatiki khimicheskoy promyshlennosti (Construction Office for Automation in the Chemical Industry), so, for instance, the portable gas analyzer SGF, which has an alarm signal, apparatus of the thermomagnetic and magneto-electric types, apparatus based on the adsorption of infrared rays. In order to determine separately NO<sub>2</sub> and NO in waste gases an automatic photo-colorimeter AFK-3 has been developed and installed, while a magnetic gas analyzer of the type MGK-2 is used to determine oxygen in waste gases. The conference pointed to the necessity of increasing the range, and improving the quality of reagents. The positive attempt of the NIUIF, UNIKHIM, and NIOKhIM Institutes which established research laboratories

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at larger plants of the chemical industry was mentioned.

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VLADIMIROV, L.V., red.

[New methods of analysis and study in basic chemistry]  
Novye metody analiza i issledovaniia v osnovnoi khimii;  
sbornik trudov. Moskva, Laboratoriia nauchno-tekhn.  
informatsii, 1962. 95 p. (MIRA 17:7)

Vladimirov, L.V.; Shul'GINA, M.N.; Vasilevskaya, L.S.; Rozanova, N.A.;  
Pletyushkin, A.A.; Zhukova, L.K.; Babina, M.D.

Exchange of experience. Zav.lab. 28 no.5:548-549 '62.  
(MIRA 15:6)

1. Nauchnyy institut po udobreniyam i insektofungisidam (for  
Vladimirov, Shul'gina). 2. Gosudarstvennyy nauchno-issledovatel'skiy  
i proyektnyy institut redkometallicheskoy promyshlennosti (for  
Vasilevskaya, Rozanova). 3. Institut metallurgii imeni A. A.  
Bakova (for Pletyushkin, Zhukova). 4. Institut gigiyeny i  
profzabolenvaniy AMN SSSR (for Babina).  
(Metals—Analysis) (Water--Purification)