

ZORIN O. D. and KHLEBNIKOV, A. Ye.

Tipy kineticheskogo obezuglerozhivaniya i gazosoderzhaniiye v metalle.

report submitted for the 5th Physical Chemical Conference on Steel Production  
Moscow, 30 Jun 1959.

ZORIN, O.D.

Device for a simultaneous withdrawal of specimens of gas and metal  
from the steel smelting furnace. Zav.lab. 25 no.3:375-376 '59.

(MIRA 12:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.  
(Metallurgical laboratories--Equipment and supplies)

AUTHOR: Zorin, O. D.

SOV/163-58-2-11/46

TITLE: The Effect of the Technological Parameters of the Melt on the Oxygen Content in Metals (Vliyaniye tekhnologicheskikh parametrov plavki na soderzhanie kisloroda v metalle)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, № 2, pp. 72-76 (USSR)

ABSTRACT: The author carried out experiments to determine the dependence of the oxygen content in the metals on the technological parameters. The oxygen content of the metals is in general dependent on the carbon content, however, also the operation conditions of the melting process influence it. The dependence of the oxygen content in the metals on the temperature was discussed. Within the melting period an increase of the oxygen content is found with an increase in temperature. Within the period of boiling the oxygen concentration in the metals is stabilized at 1590-1640°C. At higher temperatures the oxygen content in the metals decreases. The effect of the concentration of the iron oxides in the iron slag also effects the oxygen content of the metals. The dependence between the oxygen content of the metals and the iron oxide content in the slag was found. The effect of

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The Effect of the Technological Parameters of the Melt on the Oxygen Content  
in Metals

SOV/163-58-2-11/46

an increased blowing of oxygen into the metallic melt leads to  
an increase of the oxygen content.  
There are 3 figures and 11 references, 7 of which are Soviet.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)  
SUBMITTED: November 13, 1957

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"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, O.D.

Using methods of mathematical statistics for research and  
automatic control of the process of decarburizing an open-  
hearth furnace bath. Met. i gornorud. prom. no.3;20..24  
My-Je '64. (MIRA 17;10)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, P. (Novosibirsk)

More on stimuli and quality. Sov. torg. 36 no.3;36-37 Mr '63.  
(MIRA 16:3)  
(Novosibirsk--Commercial products--Quality control)

ZORIN, P.

How efficient are the orders? Sov.torg. 35 no.4:30-31 Ap '62.  
(MIRA 15:4)

1. Rukovoditel' promtovarnoy gruppy obshchestvennogo otdela  
torgovli, Novosibirsk.  
(Novosibirsk--Clothing industry)

ZORIN, P. (Yaroslavl')

Some problems in fire prevention in industrial enterprises.  
Posh.delo 5 no.12:13-14 D '59. (MIA 13:4)  
(Yaroslavl--Chemical plants--Fires and fire prevention)

ZORIN, P.

What if the matter had been treated in a way other than formal?  
Pozh.delo 9 no.5:7-8 My '63. (MIRA 16:5)

Q. Nachal'nik Upravleniya pozharnoy okhrany Yaroslavskoy oblasti.  
(Yaroslavl Province--Fires and fire prevention)

ZORIN, Petr Alekseyevich, inzh.; KRYLOV, Nikoley Vital'yevich, inzh.-arkhitektor; MARTYNOV, Pavel Timofeyevich, inzh.; RAZINKOV, P., red.; LIL'YE, A., tekhn.red.

[Handbook for rural builders; building materials, details, and construction elements] V pomoshch' sel'skому stroyitelju; stroytel'nye materialy, detali i konstruktsii. Moskva, Mosk.rabochii, 1959. 438 p.

(MIRA 13:5)

(Building)

ZORIN, P.A.; MARTYNOV, P.T.; SOBOLEV, M.A., nauchnyy redaktor; GRINBERG,  
S.M., redaktor; GLADKIKH, N.N., tekhnicheskiy redaktor.

[Local unfired building materials] Mestnye besobzhigonye stroi-  
tel'nye materialy. Moskva, Gos.ind-vo lit-ry po stroit.materialam,  
1956. 122 p.

(Building materials)

GLAGOLEV, Aleksey Fedorovich, inzh.; ZORIN, P.A., inzh., nauchnyy red.;  
GORDEYEV, P.A., red. i ed.-vs; MEDVEDEV, L.Ia., tekhn. red.

[Simplest methods of building on collective farms; a handbook for  
leaders of collective farm construction crews] Stroitel'stvo v  
kolkhozakh prosteishimi sposobami; posobie dlia brigadirov  
stroitel'nykh brigad kolkhozov. Moskva, Gos.izd-vo lit-ry po  
stroit., arkhitekt. i stroit. materialam, 1958. 287 p. (MIRA 12:3)  
(Farm buildings) (Building)

RAKIN, L.A.; ZORIN, P.A., starshiy inzhener

Mechanization of repairs of metallurgical furnaces in  
the "Serp i Molot" Plant. Metallurg 6 no.9:34-5 '61. (MIRA 14:9)

1. Zam stitel' nachal'nika tselka remonta metallurgicheskikh  
pechey zavoda "Serp i molot" (for Rakin). 2. Zavod "Serp i  
molot" (for Zorin).

(Metallurgical furnaces--Maintenance and repair)

ZORIN, Petr Alekseyevich; RAZIMOV, P., red.; YEGOROVA, I., tekhn.red.

[Making bricks in collective-farm enterprises] Proizvodstvo  
kirpicha na kolkhoznykh predpriyatiakh. Monkva, Mosk.rabochii,  
1959. 169 p. (MIRA 12:12)

(Brickmaking)

ZORIN, Petr Alekseyevich, inzh.; ERILOV, Nikolay Vital'yevich,  
inzh.-arkhitektor [deceased]; MATEKOV, Pavel Timofe'yevich,  
inzh.; RAZIMOV, P., red.; PAVLOVA, S., tekhn.red.

[Helping rural builders] V pomoshch' sel'skogo stroitelstva.  
Izd.2., perer. i dop. Moskva, Mosk. rabochii, 1960. 494 p.  
(MIRA 14:4)

(Construction industry)

SHMARGANER, Yeva Markovna; ZORIN, P.D., nauchnyy red.; CHACHEVA, A.V.,  
red.; SHAPENKOVA, T.A., tekhn. red.

[Maintenance of lace machines] Obsluzhivanie kruzhevnoi ma-  
shiny. Moskva, Izd-vo nauchno-tekhn. lit-ry RSPFSR, 1961, 156 p.

(MIRA 15:3)

1. Zamestitel' nachal'nika kruzhevnoy tschka Moskovskoy kru-  
zhevnoy i gardinno-tyulevoy fabriki imeni Tel'mana (for Zorin).  
(Knitting machines) (Lace and lace making)

ZORIN, P.M.

Akhtyrskaya Hospital for medicinal baths. Vop. kur. fizioter. i lech.  
•fiz. kul't. 25 no. 3:268-269 My-Je '60. (MIRA 14:4)

1. Iz kozhno-venerologicheskogo kabineta Akhtyrskoy medikosanitarnoy  
chasti tresta "Abinneft".  
(ABINSKII DISTRICT (KRASNODAR TERRITORY)--MINERAL WATERS)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, P.M. (Poselok Akhtyrskiy)

Fixed erythema following use of phthiazid. Vest.derm. i.ven. 32  
no.1:77 Ja-F '58. (MIRA 11:4)  
(SKIN--DISEASES) (ISONICOTINIC ACID)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ABAKUMOVSKIY, D.D., inzh.; VIKEMAN, Yu.L., inzh.; VODOVZOV, A.I., inzh.;  
ZORIN, R.P., inzh.; IGNATCHENKO, Ye.A., inzh.; LITINSKIY, M.E., inzh.;  
SAZONOV, A.I., inzh.; PRITULA, V.M., inzh.; POMAZKOV, S.A., inzh.;  
FRUKHTSEYN, L.I., inzh.; SAPOZHNIKOV, N.M., inzh.; MASYUK, A.I., inzh.;  
YANKELEV, L.F., inzh.; BASHILOV, N.N., stv. red.; LATINSKIY, M.E., red.;  
POLOSINA, A.S., tekhn. red.

[Handbook for builders and assemblers of the petroleum industry]  
Spravochnik stroitelia-montazhnika neftianoi promyshlennosti. Mo-  
skva, Gostoptekhizdat, 1946. 250 p. (MIRA 15:4)

1. Russia(1923- U.S.S.R.) Narodnyy komissariat neftyanoy promysh-  
lennosti. Glavnoye upravleniye. 2. Narodnyy komissariat neftyanoy  
promyshlennosti SSSR (for all except Bashilov, Latinskiy, Polosina).  
(Petroleum industry)

ZORIN, S. (Leningrad)

"Self-service grocery stores" by I.A.Ivanov. Reviewed by S. Zorin.  
Sov. torg. 35 no.9:52-53 S '62. (MIRA 16:2)  
(Grocery trade) (Ivanov, I.A.)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, S. (Leningrad)

Methods for determining the need of storage space. Sov. torg 33  
no.10:18-21 0 '59. (MIRA 13:1)  
(Warehouses)

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CIA-RDP86-00513R002065420016-5"

KUST, V., kand.ekonom.nauk (Leningrad); ZORIN, S., kand.ekonom.nauk (Leningrad);  
ZHDANOVA, S., kand.ekonom.nauk (Leningrad)

Textbook on the organization and technology of trade. Sov. torg.  
37 no.11:47-48 N '63. (MIRA 16:12)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

KOROL, S.; VYDRAKOVA, G.

Manufactured goods stores should work in new way. Sov. typ.  
35 no.11:26-27 N '60. (ITEM 14:10)  
(Leningrad--Retail trade)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

TEKUCHEV, N.F., gornyy inzh. (g. Stalino); ZORIN, S.I. gornyy inzh.,  
(g. Stalino)

Use of the longwall retreating to the rise system and of the  
pillar and stall method in the "Nikanor" mine. Ugol' 35 no.5:25-  
27 My '60.

(Donets Basin--Coal mines and mining)

S/263/62/000/022/001/002  
E073/E435

AUTHOR: Zorin, S.M.

TITLE: Measurement of the torques of micromotors under transient conditions of operation

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk.  
Izmeritel'naya tekhnika, no.22, 1962, 18,  
abstract 32.22.114. (Tr. Kazansk. aviat. in-ta,  
no.59, 1960, 69-73)

TEXT: In this arrangement a motor under test is fitted on a rocking frame to which a moving contact is attached and is continuously rocked at a frequency set by an audiofrequency oscillator. The amplitude of the oscillations is limited by fixed contacts connected into the metering circuit. If there is no torque on the motor shaft both operating contacts are closed for the same time. Torque developed on the shaft is transmitted to the stator and causes changes in this time, so that under steady-state conditions, the difference between the average values of the currents in the circuits of the two contacts can be measured on a differential milliammeter. Under transient conditions the

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Measurement of the torques ...

S/263/62/000/022/001/002  
E073/E435

time for which one of the operating contacts remains closed is recorded by a loop connected via an amplifier to an indicator unit ("passive attachment"). A mathematical analysis and formulae are given which enable unequivocal determination of the shaft torque from the measured closed times of the contacts. 4 figures, 3 references.

[Abstracter's note: Complete translation.]

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"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, V.

Attention, students at work. Okhr.truda i sots.strakh. no.9:  
33-36 S '59. (MIRL 13:1)  
(Vocational education--Safety measures)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

Zorin, V.M.  
ZORIN, V.M.

Epidemiological significance of different age groups of *A.maculipeplus*  
in Vitebsk Province. Med.paraz. i paraz.bol. supplement to no.1:13  
'57. (MIRA 11:1)

1. Iz byvshay Vitebskoy oblastnoy protivomalyarlynoy stantsii.  
(VITEBSK PROVINCE--MOSQUITOES AS CARRIERS OF DISEASE)

ZORIN, Petr Alekseyavich; RAZINKOV, P., redaktor; YEGOROVA, I., tekhnicheskiy  
redaktor

[Manufacturing roofing tiles on collective farms] Proizvodstvo  
cherepitsy v kolkhozakh. [Moskva] Mosk.rabochii, 1957. 94 p.  
(Tiles, Roofing) (MLRA 10:8)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, P. A.

Building of dwellings from unburned materials; adobe, raw bricks, earthen blocks, and clay with twigs Moskva, 1942. 7, o. (Stakhovskaja Biblioteka, 1942. no 7) (54-53462)

TH1421.Z6

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CIA-RDP86-00513R002065420016-5"

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN P.P.

Koeffisiyent Neravnomernosti Pri Razrabotke Slantsevykh Mestorozhdeniy,

Goryuchiye Slantsy, 1933, No. 3, 5.

SO; Goryuchiye Slantes #1934-35 TN. 871 G74

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, R.

"Ekonomika i organizacja pracy" (Economics and the organization of labor), a journal of the Polish Institute of Economics and Industrial Organization. Sots.trud no.4:115-119 Ap '56. (MLRA 9:11)

(Poland--Labor and laboring classes--Periodicals)

ZORIN, R.

"Handel Zagraniczny," the foreign trade journal published by the  
Polish Chamber of Commerce. Vnesh.torg.26 no.12:25-26 D '56.  
(Poland=Commerce=Periodicals) (MLRA 10:2)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, R.

"SUCCESSES IN THE DEVELOPMENT OF THE NATIONAL ECONOMY OF  
POLAND"

Vneshnyaya Torgovlya, No 4, Moscow 1956, pp 5-10.

Translation M-1282, 8 Nov 56.

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, R.

Successes in the development of Poland's national economy. Vnesh.  
torg. 26 no.4:5-10 Ap '56. (MLRA 9:8)  
(Poland--Economic conditions)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, S.

Initiative and amateur performances are the pledge of success. Kryl. rod.  
4 no.6:6-7 Je '53. (MERA 6:6)  
(Aeronautics--Study and teaching)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, S., kand. ekon. nauk; KONOVALOV, K.

Overall mechanization of a store. Sov. torg. no. 7:30-35 J1 '58.  
(MIRA 11:7)

(Materials handling)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, S., kandidat ekonomiceskikh nauk.

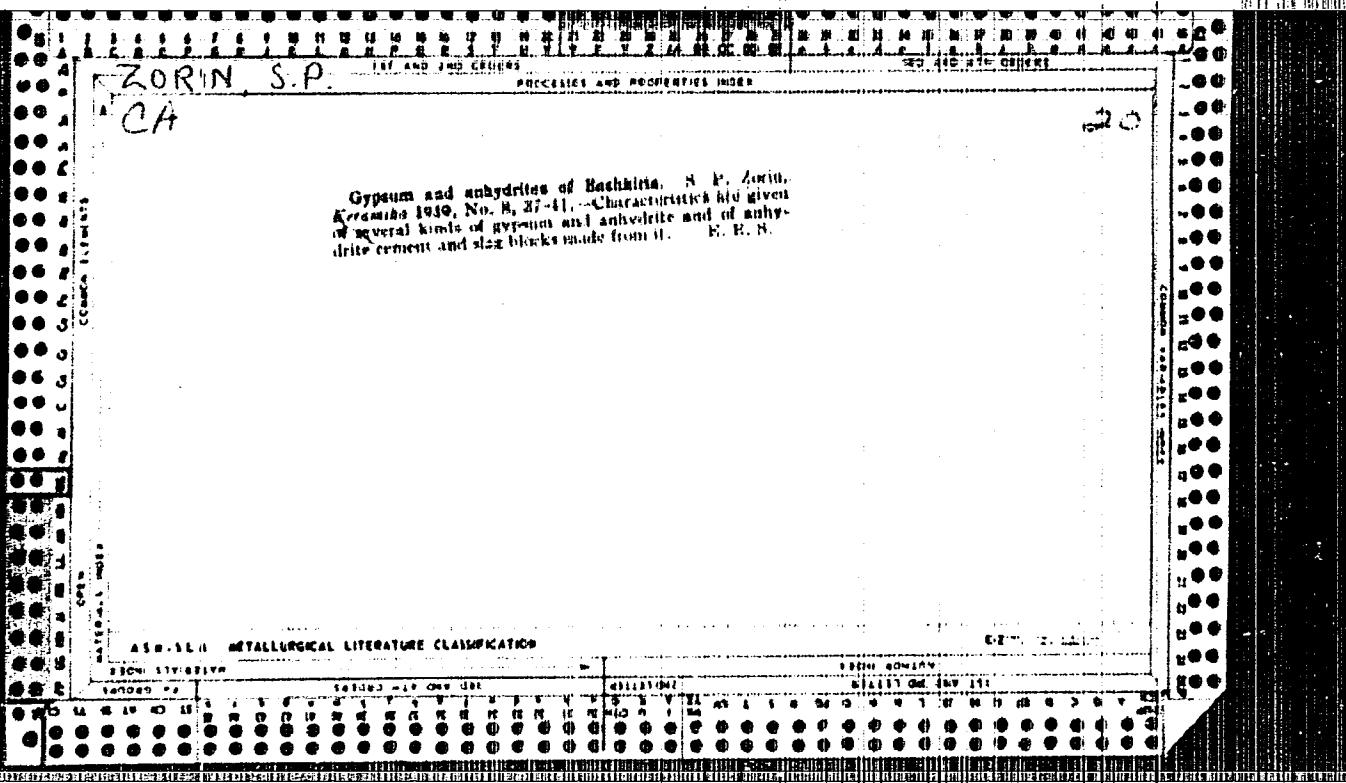
Centralized delivery of goods in Leningrad Province, Sov. torg. no.9:  
25-28 S '56.  
(Leningrad Province--Delivery of goods)

(MLRA 9:11)

ABATUROV, A.I.; VINOGRADOV, M.A.; DUBROVA, G.B.; LONOREV, L.M.; ZORIN, S.E.;  
VASIL'YEV, A.A.; VOLOKITIN, A.S.; BUKOVITSKIY, A.I.; PEGAZOV, N.S.;  
MEZENTSEV, P.V.; YEGORKIN, N.I.; DANILOV, M.M.; LUKASHOV, M.Ya.;  
MOSYEROVICH, I.L.; KLYUCHEV, A.Ye.; SARYCHEV, V.G.; BAVILOVICH, M.A.;  
NOVOSEL'SKIY, N.M.; GITLITS, S.A.; REZNICHENKO, M.S.; MOROZ, L.P.;  
KHETAGUROVA, F.V.; CHOGOVAIYE, Sh.K.; RYECHIMENKO, A.A.; BOCHAROVA, N.P.;  
GAGLOYEVA, N.A.; KRYUKOVA, T.B.

Rubinshtein, Grigorii Leonidovich; 1891-1959. Sov. torg. 33 no.12:56  
D '59. (MIRA 13:2)

(Rubinshtein, Grigorii Leonidovich, 1891-1959)



ZORIN S.P.

20

Silurian corals from the Blackdown marsh, H.-P. Fossiliferous limestone, Abbeville, Mississippi 1940, No. 7-11; ID # 4; Holotype Specimen, Abbeville, La., No. T-1, USNM 10130. -Clements from these marsh corals in quality the fossil strophomena, and are considerably stronger than are the usual.

W. R. Scott

A.S.T.M. METALLURGICAL LITERATURES CLASSIFICATION

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CIA-RDP86-00513R002065420016-5"

ZORIN, S. P.

6575

ZORIN, S. P.

ZORIN, S. P. ANGIDRITOVYI TSEMENT I METCIL YEMO  
ISPOL'ZOVANIYA V STROITEL'STVE. V POMOSNEH'  
PROIZVODSTVU. UFA, BASHKIR. KN. IZD., 1954 68 S.  
S ILL 20 SH (ADAD. NAUK SSSR BASHKIR. FILIAL ADAD.  
NAUK SSSR. GORN-GEOL. IN-T) 1.000EMZ 1 R 35 K.  
BIBLIOGR. e 65-66. -(55-2846) P 691.54 plus 693. 5 plus  
(016.3)

SO: "NIZHANYA LETOPIS" NO. 6, 1955

ZORIN, Sergey Petrovich, prof., doktor tekhn.nauk; KRAUZH, Sergey Niko-  
layevich, kand.geologo-mineralog.nauk; BUDNIKOV, P.P.; red.;  
VAKHRUSHEV, G.V., doktor geologo-mineralog.nauk, prof., saslu-  
zhennyy deyatel' nauki Bashkirskoy ASSR, red.; OSITASHEVSKAYA,  
G.A., red.; ZAYNULLINA, G.Z., tekhn.red.

[Gypsum from Bashkiria and its use in construction] Gipsy  
Bashkirii i ikh ispol'zovanie v stroitel'stve. Pod red. P.P.  
Budnikova i G.V.Vokhrusheva. Ufa, Bashkirskoe knizhnoe izd-vo,  
1959. 229 p.  
(MIRA 13:3)

1. Chlen-korrespondent Akademii nauk SSSR; deystvitel'nyy chlen  
Akademii nauk USSR (for Budnikov).  
(Bashkiria--Gypsum)

GAKHENSON, Boris Semenovich, dotsent; ZORIN, Stanislev Pavlovich, inzh.;  
VORONIN, M.I., inzh., red.; MIKHAYLOVA, L.G., red. iud-vn;  
SHIROKOVA, R.Ye., tekhn. red.

[The TDT-75 timber skidding tractor] Trelevochnyi traktor  
TDT-75. Pod obshchhei red. M.I.Voronina, Moskva, Goslesbumizdat,  
1962. 292 p. (MIRA 16:6)  
(Tractors) (Lumber--Transportation)

IL'INSKIY, B.D.; PETRENKO, L.I.; ZORIN, S.V., red.; PINEGIN, I.I.,  
red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Safety regulations in pipe rolling and pipe welding  
industries] Pravila bezopasnosti v truboproykachnom i  
trubosvarochnom proizvodstvakh. Moscow, Metallurgizdat,  
1962. 119 p. (MIRA 16:4)

1. Professional'nyy soyuz rabochikh metallurgicheskoy  
promyshlennosti. TSentral'nyy komitet.  
(Pipe mills—Safety measures)  
(Welding—Safety measures)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

KOSTIN, L.G., inzh.; ZABRODSKIY, D.A., inzh.; ZORIN, S.V., inzh.; BUCHIK,  
L.T., inzh. SANZHAREVSKIY, O.G., inzh.

Rolling of fastening parts. Mashinostroenie no.6:67-68 N-D '64  
(MIRA 18:2)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, S.V., red.; EVENSON, I.M., tekhn. red.

[Safety regulations in the coke by-product industry] Pravila bezopasnosti v koksokhimicheskem proizvodstve. Moskva, Metallurgizdat, 1960. 39 p.  
(MIRA 14:11)

1. Professional'nyy soyuz rabochikh metallurgicheskoy promyshlennosti. Tsentral'nyy komitet.  
(Coke industry—Safety measures)

ZORIN, S.V., red.; EVENSON, I.M., tekhn.red.

[Safety regulations in the production of ferroalloys] Pravila  
bezopasnosti v ferrosplavnom proizvodstve. Moskva, Gos.nauchno-  
tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960.  
34 p.  
(MIRA 13:7)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti SSSR,  
TSentral'nyy komitet.  
(Iron alloys--Metallurgy)  
(Metallurgical plants--Safety measures)

ZORIN, S.V., red.; KLEYNNAN, M.R., tekhn.red.

[Industrial safety and sanitation regulations in the wire and nail industries] Pravila bezopasnosti i promyshlennoi sanitarii v provolochnom i gvozdil'nom proizvodstvakh. Moscow, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 43 p.  
(MIRA 13:11)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti. Tsentral'nyy komitet.  
(Wire industry--Safety measures) (Factory sanitation)

DUNAYEVSKIY, M.M.; IL'INSKIY, B.D.; SINEBRYUKHOV, N.V.; ZORIN, S.V.,  
red.; MIKHAYLOVA, V.V., tekhn.red.

[Safety regulations in sintering plants] Pravila bezopasnosti  
v agglomeratsionnom proizvodstve. Moskva, Gos.snauchno-tekhn.  
izd-vo lit-ry po chernoi i tevetnoi metallurgii, 1960. 44 p.

(MIRA 13:11)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti SSSR.  
TSentral'nyy komitet. 2. Vsesoyuznyy nauchno-issledovatel'skiy  
institut organizatsii proizvodstva i truda chernoy metallurgii  
(VNIIOCHERMET) (for Dunayevskiy, Il'inskiy, Sinebryukhov).

(Sintering--Safety measures)

(Metallurgical plants--Safety measures)

IL'INSKIY, B.D.; PETRENKO, L.I.; SINEBRYUKHOV, N.V.; DUNAYEVSKIY, M.M.;  
ZORIN, S.V., red.; MIKHAYLOVA, V.V., tekhn.red.

[Safety regulations in the electric steel smelting industry]  
Pravila bezopasnosti v elektrostaleplavil'nom proizvodstve.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi  
metallurgii, 1960. 94 p. (MIRA 13:11)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti. SSSR.  
TSentral'nyy komitet. 2. Vsesoyuznyy nauchno-issledovatel'skiy  
institut organizatsii proizvodstva i truda chernoy metallurgii  
(VNIIOCHERMET) (for Il'inskiy, Petrenko, Sinebryukhov, Dunayevskiy).  
(Steel--Electrometallurgy)  
(Metallurgical plants--Safety measures)

ZORIN, S.V., red.; KLEYMAN, M.R., tekhn.red.

[Safety rules in the refractories industry] Pravila bezopasnosti v ogneupornom proizvodstve. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 50 p. (MIRA 13:?)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti SSSR. Tsentral'nyy komitet. 2. Technicheskiy inspektor Tsentral'nogo komiteta profsoyuza (for Zorin).

(Refractories industry--Safety measures)

IL'INSKIY, B.Yu.; DUMATEVSKIY, M.M.; SINIBRYUKHOV, N.V.; ZORIN, S.V.,  
red.; KLEYMAN, M.R., tekhn.red.

[Safety regulations in the blast-furnace process] Pravila  
bezopasnosti v domennom proizvodstve. Moshva, Gos.nauchno-  
tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960.  
87 p. (MIRA 13:?)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti SSSR.  
TSentral'nyy konitet.  
(Blast furnaces--Safety measures)

IL'INSKIY B.D.; GUR'YEV, V.S.; MARADUDIN, G.I.; ZORIN, S.V., red.;  
PINEGIN, I.I., red.izd-va; GINZBURG, R.Ya., tekhn. red.

[Safety regulations in the bessemer steel production process]  
Pravila bezopasnosti v konvertnom proizvodstve stali. Mo-  
skva, Metallurgizdat, 1963. 79 p. (MIRA 17:3)

1. Professional'nyy soyuz rabochikh metallurgicheskoy pro-  
myshlennosti. TSentral'nyy komitet.

DUNAYEVSKIY, M.M.; IL'INSKIY, B.D.; SINEBRYUKHOV, N.V.; VORKEL', M.M.;  
ZORIN, S.V., red.; DOBUZHINSKAYA, L.V., tekhn.red.

[Safety regulations in rolling-mill practice] Pravila bez-  
opasnosti v prokatnom proizvodstve. Moskva, Gos.nauchno-tekhnik.  
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 112 p.  
(MIRA 13:7)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti. TSentral'-nyy komitet. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii (for Dunayevskiy, Il'inskiy, Sinebryukhov, Vorkel').  
(Rolling mills--Safety measures)

IL'INSKIY, B.D.; DUMAYEVSKIY, M.M.; SINEVRYUKHOV, N.V.; PETRENKO, L.I.;  
ZORIN, S.V., red.; DOBUZHINSKAYA, L.V., tekhn.red.

[Safety regulation in the open-hearth process] Pravila bez-  
opasnosti v martenovskom proizvodstve. Moskva, Gos.nauchno-tekhn.  
izd-vo lit-ry po chernoi i tavetnoi metallurgii, 1960, 127 p.  
(MIRA 13:7)

1. Soyuz rabochikh metallurgicheskoy promyshlennosti SSSR.  
TSentral'nyy komitet.  
(Open-hearth furnaces--Safety measures)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, V.

Advice to young drivers. Za rul. no.6:13 Je '57. (MIRA 10:7)  
(Juvenile automobile drivers)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, V.

Extinct animals. Vokrug sveta no.7:26-28 J1 '54. (MLRA 7:8)  
(Extinct animals)

ZORIN V.

## PROCESSED AND INDEXED BY

The corrosion processes taking place under a drop of solution. V. Zorin. *J. Phys. Chem. (U. S. S. R.)* 11, 634-43 (1937). The character and the degree of corrosion of Fe under drops of salt solns. depend on the nature of the salt, and especially on its cation. Solns. (0.1 N) of Li, K, Na, NH<sub>4</sub>, Mg, Ba, Mn, Cu, Zn, Hg, Ca, Al, Fe, Sn and Pb on two samples of Fe contg., resp., 8% 0.018 and 0.081%, P 0.010 and 0.050%, Mn 0.00015 and 0.52%, C 0.017 and 0.20%; and S none and 0.07% were studied. Drops of the solns. of the salts of alkali metals formed during corrosion of Fe in all. zone on the periphery of the drop, and a free acid in its center. Drops of solns. of other salts do not spread out. No free base and free acid are formed in them. The spreading of the drops depends on the properties of the cation of the salt, and on the corroding metal, but does not depend on the anion of the salt. Under the drops of solns. of basic metals the corrosion starts immediately below the edges where the first rust is formed. The oxidation  $Fe^{++} \rightarrow Fe^{+++}$  does take place not on the surface of the metal, but on the surface layer of the drop on the air-soln. border. Under the drop edges the corrosion takes place not because of the presence of a free base, but because of the oxidation of Fe by the dissolved O. The presence of O affects the corrosion velocity of the metal. The corrosion of Fe under the drops of salt solns. of even basic metals does not take place in accordance with the principle of differential aeration. 11 references. W. R. Heath

COMMON ELEMENTS

COMMON METALS

COMMON SALTS

COMMON ACIDS

COMMON SOLNS.

COMMON GASES

COMMON LIQUIDS

COMMON SOLIDS

COMMON SUBSTANCES

COMMON COMPOUNDS

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ZABALUYEV, V.; ZORIN, V.

Guarantee of success lies in team work. Sov.profsciuny 7 no.4:19-22  
Nr '59. (MIRA 12:4)

1. Predsedatel' Novosibirskogo sovnarkhoza (for Zabaluyev). 2. Predse-  
datel' Novosibirskogo oblssovprofa (for Zorin).  
(Novosibirsk Province—Labor productivity)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, V.

"Answer to Zaretskiy on his Criticism of My Article, 'The Process of Corrosion under Dripping'". Zhur. Fiz. Khim. 13. No. 7, 1939.

Report U-1615, 3 Jan. 1939.

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, V.

Electric current! Danger! Politekh. obuch. no. 10:46-51 0 '57.  
(Electric engineering--Safety measures) (MILIA 10:9)

ZORIN, V.

L. P. Pavlov and infant and child nutrition. Pediat. listy, Praha  
7 no. 6:354-357 Nov-Dec 1952. (CLML 24:2)

1. Of the First Pediatric Clinic (Head--Prof. J. Svajcár, M.D.) of  
Charles University, Prague.

ZORIN, Vladimir, MUDr

Importance of the Pavlovian theory for pediatrics. Pediat. listy,  
Praha 9 no.6:322-329 Dec 54.

1. Detske oddeleni KUNZ Usti n.L., predn. MUDr V.Zorin  
(PHYSIOLOGY  
Pavlovian theory in pediatrics)  
(PEDIATRICS  
Pavlovian theory)

ZORIN, Vladimir

Organization of care of hemolytic disease of newborn. I.  
Cesk. pediat. 12 no.5-6:486-493 May-June 57.

1. Detske oddeleni KUNZ v Usti n. L., prednosta prim. MUDr.  
V. Zorin.

(ERYTHROBLASTOSIS, FETAL, ther.  
pre- & postnatal care (Cs))

ZORIN, Vladimir

Experiences of regional center for exchange transfusion for hemolytic disease of newborn. Cas. lek.cesk. 96 no.24-25: 773-777 21 June 57.

1. Detske oddeleni KURZ v Usti n. L., prednosta prim. MUDr.  
V. Zorin. Vl. Z., Usti n. L., Fucikova tr. 243.

(ERYTHROBLASTOSIS, FETAL, ther.)

exchange transfusion, statist. (Cs)

(BLOOD TRANSFUSION, in various dis.

exchange, in fetal erythroblastosis, statist. (Cs))

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, V. (g.Kurgan)

Landing on terrain selected from the air. Kryl.rod. 11 no.9:13  
S '60. (MIRA 13:9)  
(Airplanes--Landing)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, V.; DOBROVOL'SKIY, N.

Suggestions prompted by life. Okhr.truda i nats.strakh.  
no.10:20-22 0 '59. (MIRA 13:2)

1. Predsedatel' Novosibirskogo oblastnogo soveta profsoyuzov  
(for Zorin). 2. Zaveduyushchiy otdelom okhrany truda Novosibir-  
skogo oblsovprofa (for Dobrovolskiy).

(Novosibirsk Province--Industrial hygiene)  
(Factories--Design and construction)

ZORIN, Vladimir, MUDr.

~~Experience with the health community system in care of children. Cesk.~~  
zdravot. 6 no.6:290-298 June 58.

1. Detske oddeleni KUNZ Usti nad Labem.  
(CHILD WELFARE,  
health community serv. in Czech. (Cz))

L 06456-67 EWT(m)/EWP(1) IJP(c) GG/RM  
ACC NR: AR024546 (A)

SOURCE CODE: UR/0089/66/021/001/0064/0066

AUTHOR: Berlyant, S. M.; Drozdov, V. Ye.; Finkel', E. E.; Orlenko, P. A.; Surovetskiy,  
L. M.; Breger, A. Kh.; Karpov, V. L.; Zorin, V. A.

ORG: none

TITLE: Large-scale radiation cross linking of polyethylene insulation of cable products

SOURCE: Atomnaya energiya, v. 21, no. 1, 1966, 64-66

TOPIC TAGS: radiation chemistry, polyethylene, polymer cross linking, insulated wire, electric cable/ KP gamma ray apparatus

ABSTRACT: In view of the many advantages resulting from the use of irradiated thermally stabilized polyethylene as insulation in cables, the authors describe apparatus developed for the irradiation of such insulation, for use in geophysical cables for very deep well drilling (o.d. 6.5 mm, length ~9 km, weight ~380 kg, volume ~ 400 l), capable of withstanding temperatures up to 200°C and pressures higher than 300 atm. The entire cable was wound on a drum and exposed to  $\gamma$  radiation from  $\text{Co}^{60}$  (total activity 180,000 g-equivalent of radium) from the KP-200 apparatus. Measures taken to ensure uniformity of the gamma radiation, which is an essential factor in the success of the operation, are described. The required dose was 140 Mrad ( $\pm 10\%$ ). At a dose intensity of 63 r/sec and an irradiation time of 610 hr, the productivity of the apparatus was 0.7 kg/hr and the efficiency ~15%. The authors thank G. N. Liscov

Card 1/2

UDC: 621.039.55: 541.15

L 06456-67

ACC NK: AP6024546

for participating in the development of the apparatus, and M. Ye. Yerashov, M. D. Larionov, L. K. Topil'skiy, Yu. D. Korlov, and the late N. A. Duzhetov for help with the experiments. Orig. art. has: 3 figures.

SUB CODE: 07, 20/ SUBM DATE: 16Oct65/ ORIG REF: 007

Card 2/2 *la*

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, V.F.; TSVETNOY, S.M.

Apparatus for checking the armatures of miniature machines.  
Sborn. st. RIIZHT no.45:70-76 '64. (MIREA 19:1)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, V. K.

AID P - 980

Subject : USSR/Engineering

Card 1/1 Pub. 28 - 3/9

Authors : Tanatar, A. I. and Zorin, V. K.

Title : Squirrel cage induction motors with screened end rings

Periodical : Energ. byul., #10, 15-17, O 1954

Abstract : A method of improvement of starting torque in the induction motor suitable for continuous and interrupted running is discussed. This improvement to Stern's double ring system and the combination of Iosifov's system with starting rods and Shturman's open circuit in squirrel cage was satisfactory tested. Four drawings, 1 table and 5 Russian references (1951-1952).

Institution : None

Submitted : No date

ZORIN V.K.

TAHATAR, A.I.; ZORIN, V.K.

Short-circuited induction motors with shielded end rings of the squirrel cage. Energ.bul. no.10:19-18 O '54. (MIRA ?;11)  
(Electric motors, Induction)

TANATAR, A.I.; ZORIN, V.K.

Increasing the reliability of long-travel brake electromagnets of  
the KMT type. Prom.energ. 16 no.6:24 Jp '61. (MIRA 15:1)  
(Hoisting machinery--Brakes) (Electromagnets)

ZORIN, V.K.

Automatic device for facilitating the driving of a car.  
Avt.prom. 28 no.1:45-46 Ja '62. (MIRA 15:2)

1. Dnepropetrovskiy inzhenerno-stroitel'nyy institut.  
(Automobiles--Apparatus and supplies)

ZORIN, V.M.; ZABLOTSKAYA, A.N.

Data for the standardization of the indices of bacterial contamination of boiled sausage products. Vop.pit 21 no.4:85-86 Jl-Ag '62.  
(MIRA 15:12)

1. Iz Vitebskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.  
(SAUSAGES—MICROBIOLOGY)

ZORIN, V.N.

Creating reducing turbodrills; a topic for discussion. Neft.khoz.  
38 no.8:45-47 Ag '60. (MIRA 13:8)  
(Turbodrills--Hydraulic drive)

ZORIN, V.N.

CA

2

The performance and calculation of flush condensers. V. N. Zorin and I. G. Kostin. *Repr. Govt. Petroleum Research Inst. (Moscow) 1932, No. 100.* The exptl. procedure is described and calcns. are presented. A. A. B.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REF ID: A37-4314A

EDITION 8-61

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZORIN, V.N.; KONYUKHOV, I.N.; VINOGRADOV, B.N.; CHERNOBYL'SKIY, A.G.;  
ALEKSANDROV, V.S.

Reduction turbodrill for drilling slim and deep wells. Trudy  
MINKHIGP 46:27-34 '64. (MIRA 17:6)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZCRIN, V. N.

"Methods of Hydrodynamic Calculation of Turbines of a Turbodrill on the Basis of Potential Flow around the Vanes." Cand Tech Sci, Moscow Order of the Labor Red Banner Petroleum Inst imeni Academician I. M. Gubkin, 2 Mar 54. Dissertation (Vechernyaya Moskva Moscow, 22 Feb 54)

SO: SUM 186, 19 Aug 1954

ZORIN, V.N.

ALD P - 1125

Subject : USSR/Mining

Card 1/1 Pub. 78 - 3/25

Author : Zorin, V. N.

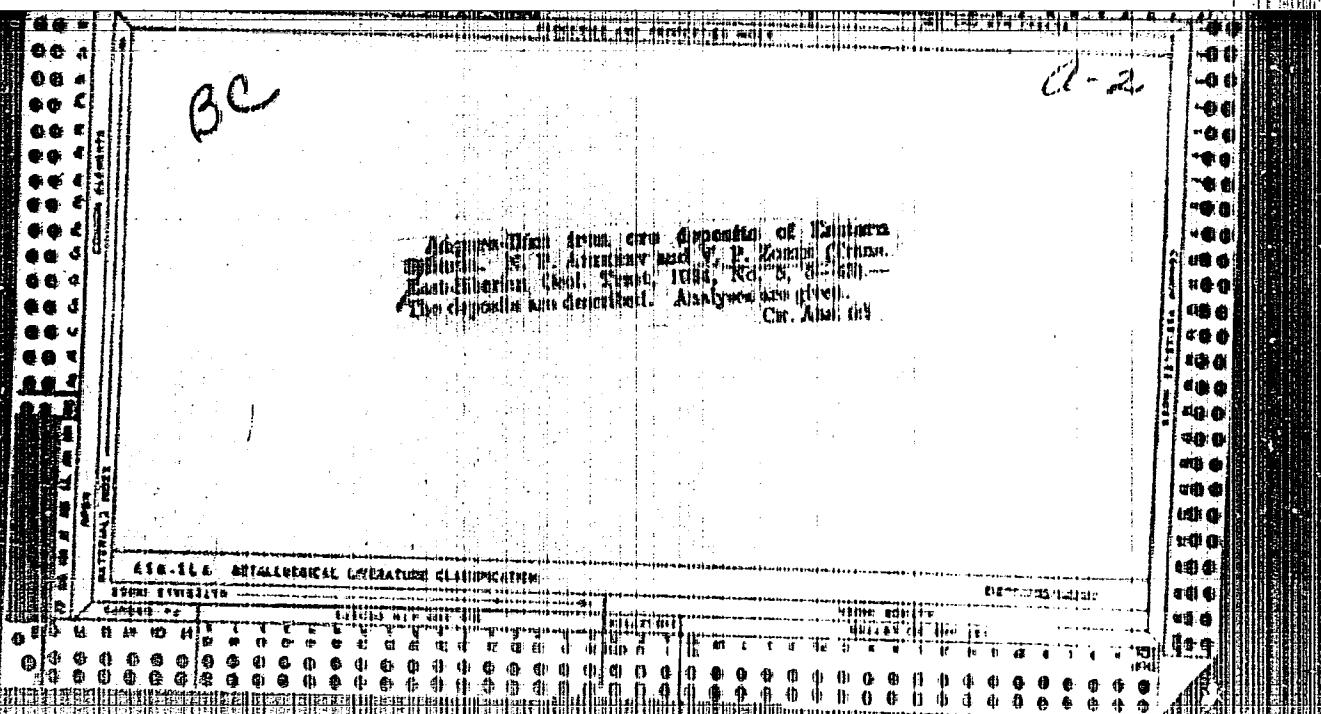
Title : Determination of consumption of drilling fluid and working pressure drop in the turbo-drill by P. P. Shumilov's method

Periodical : Neft. knoz., v. 32, #11, 10-15, N 1954

Abstract : Discussion of P. P. Shumilov's and P. A. Ioannsyany's methods is presented with an analysis of basic equations for fluid consumption and pressure drop. The output of the fluid pump is related to the technological conditions of the oil well casing, working conditions of the turbo-drill (pressure drop momentum and shaft speed), and technical and economic considerations. One chart, 1 table and 5 Russian references (1943-1953).

Institution : None

Submitted : No date



ZORIN, V. P.

7630. ZORIN, V. P. -- Kontrol'nyye zadaniya I metodicheskiye ukazaniya po kursu "tekhnologiya metallov I dereva". dlya zaoch. otd-niy tekhnikumov mekhani-  
nizatsii sel'skogo khozyaystva. utr 29/kh 1954 g. (M., 1954). 28 s. 20 sm.  
(upr. ucheb. zavedeniy glav. upr. podgotovki kadrov M-va sel'skogo khozyaystva  
SSSR. vsesoyuz. zaoch. s. -- kh. tekhnikum). 8.000 elz. b. ts. -- v kontse  
teksta avt: V. P. Zorin --bez tit. l. I obl. -- (55-3870)  
621.7/9 & 674.02) (071.4)

SO: Knizhnaya Letopsis', Vol. 7, 1955

ZORIN, Vladimir Petrovich; SOLODUN, G.A., red,

[Arithmetic in construction] Arifmetika po stroitel'nomu  
delu; sbornik pravil, primerov i zadach. Kiev, Gossele'-  
khozizdat USSR, 1963. 251 p. (MIRA 16:5)  
(Arithmetic)

"Corrosion of the Bimetal "Vetran." V. S. Zarin (*Vvedeni Naukovo-Issledovatel'skogo Instituta Legkikh Metallov—"NIIRALUMINI"*) (*Transactions of the Scientific Research Institute for Light Metals—"NIIRALUMINI"*). 1938, (1-2), 74-81).—[In Russian.] The corrosion of the bimetal Vetran by sodium chloride, sodium carbonate, and acetic acid solutions, dilute sulphuric acid, tap water, ammonia gas, hydrogen sulphide, carbon dioxide, fuming nitric acid, fish products was investigated. In all cases the aluminium layer was found to be porous, the porosity being inversely proportional to its thickness and giving rise to pitting by all the liquid reagents. Sodium carbonate solution produced stripping of the aluminium layer. The gases gave no corrosion.

J. D. N. H.

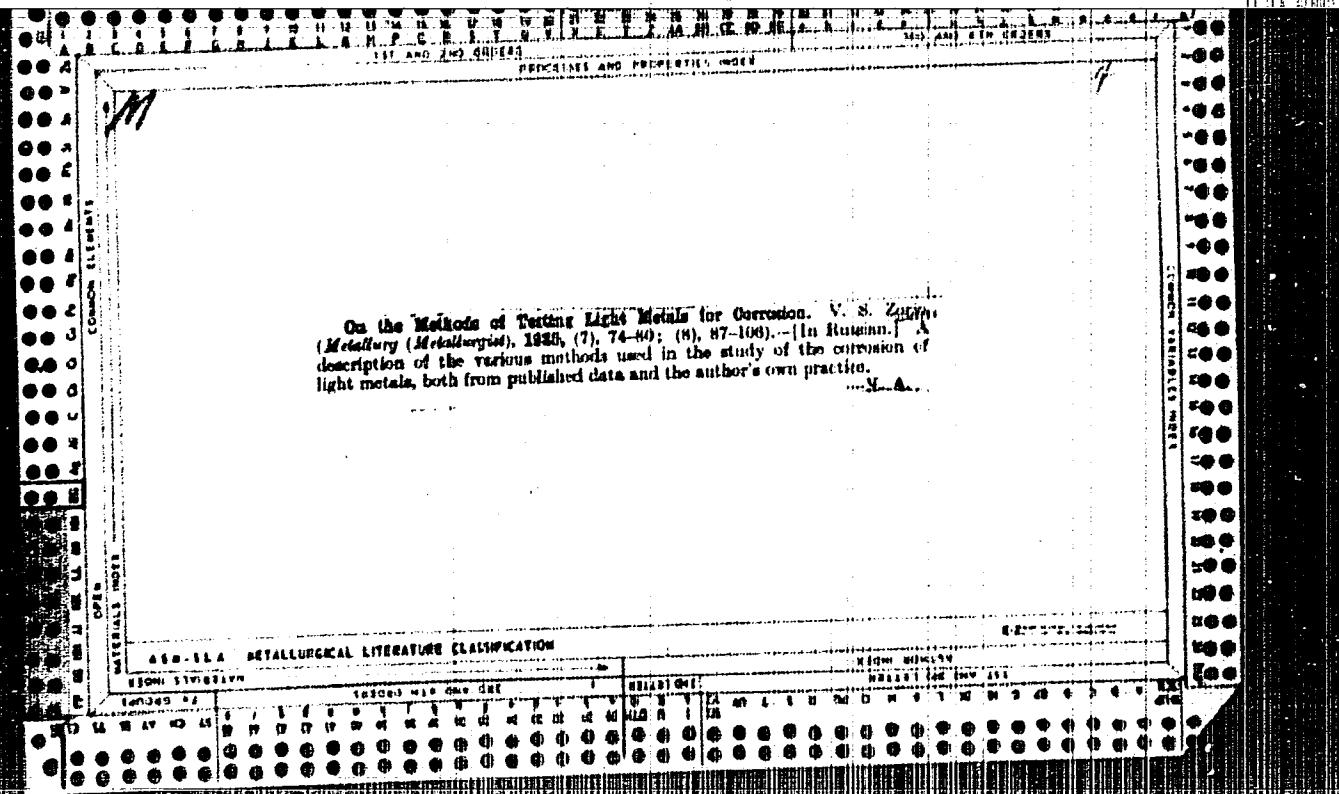
## ASH-SEA METALLURGICAL LITERATURE CLASSIFICATION

"Corrosion of the Bimetal Iron-Copper." V. K. Zogin (*Traudi Metallozavodskoje Issledovatel'stvo Metallov "NIISS ALUMINI"*) (Transactions of the Scientific Research Institute for Light Metals "NIISS ALUMINI"), 1938, (3), 44-50. — [In Russian.] Corrosion tests on sheet (1-2 mm.), strip, and various utensils of a composite metal produced by rolling sheet iron between two copper sheets and, subsequently annealing, have been made in tap-water and solutions of sodium chloride, sodium carbonate, acetic acid, and malic acid. Owing to its pliable nature, the copper layer (0.06-0.17 mm. thick) is non-porous, and hence does not give an iron-copper couple which promotes corrosion, and does not peel off the iron. The mechanical

properties of the composite sheet are unaltered after the corrosion tests, and it is considered to be a suitable substitute for pure copper in roofing sheets.

D. N. B.

ASS-SEA METALLURGICAL LITERATURE CLASSIFICATION



**\*Oxidation of Aluminum and Aluminum Alloys by Gorden and Litvinoff.**  
V. H. Zarin (*Soviet Metal* (Light Metals), 1935, (10), 12-21).—[In Russia.]  
Aluminum, Duralumin, and Lautal were exposed to moist oxygen at room temperature for 20 days, and at 97° and 550° C. for 4-24 hrs., then tested for corrosion-resistance in artificial sea-water. Only specimens treated at 550° C. became corrosion-resistant; this, however, cannot be ascribed to the action of oxygen, as similar treatment in a carbon dioxide atmosphere and in a vacuum produced analogous results. Oxidation with ozone, hydrogen peroxide, nitric acid, or phosphoric acid did not produce resistant films.—D. N. S.

**ASTM-SEA METALLURGICAL LITERATURE CLASSIFICATION**

**APPROVED FOR RELEASE: 03/15/2001**

CIA-RDP86-00513R002065420016-5"

Corrosion of light metals and of their alloys by metallic mercury. V. S. Zorin. Kernesvyn 4, No. 2, 142-7 (1934); Khim. Referat. Zhur. 2, No. 3, 137 (1934). The corroding action of metallic Hg was investigated on Al with small admixt. of impurities, on duralumin, on Mg (98.9%), on Mg (tech.), on the Al "elektro" and on the Zn "elektro." The rolled metals (except Mg, which was cast) were tested. Drops of Hg were added to the metals and

the corrosion processes were investigated. The largest amt. of corrosion was observed on the metal alloys (especially on the Fe-Cu, Mg and on the "elektrins"!), while pure Mg was almost immune to corrosion. The velocity and the degree of corrosion increased with the increase of the humidity of the atm. and they did not depend on its compn. (the expts. were also performed in H<sub>2</sub>, O<sub>2</sub> A and C<sub>2</sub>H<sub>6</sub>). The protective films on the metals preserved the metals, but did not ensure abs. protection from the corrosion.

W. R. Henn

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

SIV/76-33-8-31/39

5(4)  
AUTHORS:

Palatnik, L. S., Zorin, V. S.

TITLE:

On the Theory of Transformation of Metastable Phases

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 8, pp 1859-1865  
(USSR)

ABSTRACT:

An approximation expression for the difference in the free energies of two phases is derived. The transformation kinetics of metastable phases is basically determined by the difference  $\Delta\varphi$  of the spatial free energies of the "old" and "new" phases, as well as by the values of the surface tension  $\sigma$  at the interphase borders. These two values must be known for investigations of the temperature function of the rate of formation of crystallization centers (RFCC), the linear crystallization growth, for the so-called step rule (SR), etc. Reference 1 used an approximation formula (1) for the determination of  $\Delta\varphi$ . It had the form of a Taylor polynomial. Since, however, (1) holds only for the vicinity of the transformation temperature  $T_1$ , a Taylor polynomial of second order (2) must be used for more precise calculations. By means of (2), the (SR) is explained in the present case. Whether the (SR) is complied with or not depends, above all, on the (RFCC) and the separation of the stable and metastable phases.

Card 1/2

On the Theory of Transformation of Metastable Phases SCV/76-33-6-31/39

and is therefore also dependent upon the ratio of specific heat, value  $\alpha$ , the transformation heat, and the equilibrium temperatures of the respective phases. The limiting temperature is determined for the range in which the (SR) is fulfilled or not fulfilled, and this is explained by way of the example of saturated water vapor chilled to a below-zero temperature (centigrade), since both ranges are to be found with it. From the results obtained, the surface tension of ice was calculated  $\alpha_{\text{ice}} = (0.97 \pm 0.02) \alpha_{\text{water}}$ . By means of the polynomial (2), the position of the maximum of (RFCC) was determined (Equation 23). The value obtained is closer to the experimental value than the one obtained in reference 1 by means of polynomial (1). There are 7 references, 4 of which are Soviet.

ASSOCIATION: Politekhnicheskiy institut im. V. I. Lenina (Polytechnic Institute imeni V. I. Lenin), Gosudarstvennyy universitet im. A. M. Gor'kogo, Khar'kov (State University imeni A. M. Gor'kiy, Khar'kov)

SUBMITTED: February 14, 1958

Card 2/2

24 (2)

AUTHORS:

Palatnik, L. S., Zorin, V. S.

SOT/20-126-6-30/67

TITLE:

On the Theory of the Formation of a New Phase on the Decomposition of Solid Solutions (K teorii zarezhdeniya novoy fazы pri raspade tverdykh rastvorov)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1254 - 1257  
(USSR)

ABSTRACT:

Formula (1) gives the critical number of atoms in the nucleus of a crystal on the decomposition of a solid solution. Next, equation (10) is expanded with an assumption of probability, to compute the number of centers originating with the formation of the new phase. The two-phase decomposition is then the object of further investigation, and the regulation of the enriched zones is assumed to proceed from the zones in the initial stage. The mean size of the regulating zones is then computed with the method of successive approximation. The authors confine themselves to the second approximation and give equation (17). There are 1 figure and 5 references, 1 of which is Soviet.

Card 1/2

On the Theory of the Formation of a New Phase on      SOV/20-126-6-30/67  
the Decomposition of Solid Solutions

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina  
(Khar'kov Polytechnic Institute imeni V. I. Lenin). Khar'kov-  
skiy gosudarstvennyy universitet im. A. M. Gor'kogo (Khar'kov  
State University imeni A. M. Gor'kogo)

PRESENTED: March 23, 1959, by S. A. Vekshinsky, Academician

SUBMITTED: March 23, 1959

Card 2/2

PALATNIK, L.S.; ZORIN, V.S.

Investigation of thermodynamic systems with a nonzero defect  
the concentration matrix. Zhur. tekh. fiz., 28 no.11:2635-2642  
N '58. (MIREA 12;1)

(Matrix mechanics) (Phase rule and equilibrium)

AUTHORS: Palatnik, L. S., Landau, A. I.,  
Zorin, V. S.

76-32-3-17/43

TITLE: Phase Diagrams of Thermodynamic Systems With a Non-maximum  
Rank of the Concentration Matrix (Diagrammy sostoyaniy  
termodinamicheskikh sistem s nemaksimal'nym rangom  
matriцы koncentratsiy)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 3,  
pp. 608-615 (USSR)

ABSTRACT: In studying equilibrium diagrams, the basic method of topology  
is used, whereby geometrical figures are divided into their  
simplest elements - simplexes. Hyperconnected are subelements.

By this method,  
it is possible to facilitate the analytical  
investigations of the phase-equilibrium conditions. The  
present paper investigates diagrams of equilibrium systems  
in which a non-zero effect of the matrix of  
concentration  $\sigma$  is possible. Equations for systems with  
a certain number of phases are given, and then considerations  
of the problems of diagram topology for equilibrium of

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Phase Diagrams of Thermodynamic Systems With a Non-Maximum  
Rank of the Concentration Matrix 76-32-3-17/43

these systems, with the use of a given position matrix that is denoted as an expanded position matrix, are explained. From the derivation of hyperconnode systems with a non-maximum rank of the concentration matrix it follows that by the degeneration of the hyperconnode, a contract boundary of the separating domains is attained, where this region of boundary contacts is considered as a characteristic domain. Some examples of characteristic domains for equilibrium diagrams of three-component and four-component systems are given, where the concentration matrices and the diagrams of isobars are given. The hyperconnodes on the diagram  $P, T, X_1$  represent simplexes with the magnitude  $l = r-1-\lambda - \sigma$ , where for the case  $\lambda + \sigma > 0$  (the characteristic domain) the simplexes appear degenerate. In the conclusion, it is emphasized that the study of the hyperconnodes may facilitate further investigations of the systems with  $\sigma > 0$  and of the processes occurring in them, where systems of a non-maximum rank can also be investigated.

Card 2/3

Phase Diagrams of Thermodynamic Systems With a Non-  
Maximum Rank of the Concentration Matrix 76-32-3-17/43

There are 4 figures and 7 references, 7 of which are  
Soviet

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo,  
Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina  
(Khar'kov State University imeni A. M. Gor'kij,  
Khar'kov Polytechnic Institute imeni V. I. Lenin)

SUBMITTED: November 12, 1956

Card 3/3

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5

ZOREN, V.

On the air routes of English. Grand, av. 2<sup>o</sup> no. 6134 Je 165  
(MIRA 18:6)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065420016-5"

ZORIN, V.S., red.; PLETNEV, E.P., red.; YUDANOV, Yu.I., red.;  
YEROKHOVA, Ye.A., tekhn. red.

[ "Common Market" is a tool of monopolies] "Obshchii rynok" -  
orudie monopolii. Pod red. V.S.Zorina i E.P.Pletneva. Mo-  
skva, Izd-vo IMO, 1963. 387 p. (MIRA 16:6)

1. Moscow. Institut mezhdunarodnykh otnoshenij.  
(European Economic Community)  
(Europe, Western--Trusts, Industrial)