

L 07904-67

ACC NR: AP6024674

single crystals were colorless, with dimensions up to 5 mm, with tetragonal lattice having parameters $a = 5.17$, $c = 11.19 \text{ \AA}$ ($Z = 4$), space group $C_{4h}^6 = I4_1/a$. Diagrams of the structure and tables of the coordinates of the atoms and of the interatomic distances are presented. The properties are compared with those of other molybdates. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 20/

SUBM DATE: 28Jan66/

ORIG REF: 003/

OTH REF: 004

Card 2/2 *gd*

SOV/128-59-8-3/29

18(5)
AUTHOR:

Chichagov, K.K., Engineer and Drozdova, Ye. I.,
Engineer

TITLE:

Producing Cores by the Sandblowing Method.

PERIODICAL:

Liteynoye proizvodstvo, 1959, Nr 8, pp 8 - 10 (USSR)

ABSTRACT:

In the casting departments of the Gor'kiy automobile factory 40 sandblowing machines are used for production of cores. This increased the output in 2 - 6 times. The two models of sandblowing machines S - 6 and S-216 (constructed by GAZ) work with the pressure of 6 atmospheres. For the cores two kinds of sand ZK and NS1K (Table 1) are used. As a strengthening is added PK (includes calophony) and PT (includes thallium oil), further sulphide alkaline, meal and kerosene. The outside solidity of the cores is reached by use of bentonine or meal and special fractions of sand (K 0315 A and K 016 A). In order to avoid disturbance during the blowing process pressure in the head of the blowing-machine has to be higher than in the core-chest. For this purpose the blowing apertures of the machine have a diameter of 10 - 12 mm.

Card 1/2

Producing Cores by the Sandblowing Method

SOV/128-59-8-3/29

Some examples showing the location of the blowing apertures are drawn (Fig 2, 3, 4, 5). The drying of the pressed cores is done in the conveyor drying furnaces at 250-270°C during 1.5 - 2 hours. There are 2 tables and 5 diagrams.

Card 2/2

AUTHOR: ~~Chichagov, N. Instructor~~ SOV/27-58-12-21/23

TITLE: With What We Began (S chego my nachali)

PERIODICAL: Professional'no-tekhnikeskoye obrazovaniye, 1958, Nr 12,
p 29 (USSR)

ABSTRACT: Last year it was decided that Technical School Nr 3, Tula Oblast', besides training workmen of various specialities, should start courses for trainees of the building trade. This necessitated the equipping of classrooms with the required visual aids. The author describes how this was accomplished. The period of training was set at 10 months.

ASSOCIATION: Tekhnicheskoye uchilishche Nr 3, Tul'skoy oblasti (Technical School Nr 3, Tula Oblast')

Card 1/1

CHICHAGOV, P. V.

USSR/Soil Science
Loess

May 1947

"Some Data on Origin of Loess in the Central Dnepr Area," Ye. G. Chapovskiy, P. V. Chichagov, All-Union Sci Res Inst Hydrogeol and Engin Geol, 2 $\frac{1}{2}$ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVI, No 6

Study of field research carried out 1940-1941 on riht bank of Dnepr near twons of Zaporozh'ye and Nikopol', with particular reference to loess layer found here. Submitted by Academician B. B. Polynov, 22 Dec 1946.

PA 58T98

CHICHAGOV, V.P.

NIKOL'SKAYA, V.V.; CHICHAGOV, V.P.

Joint explorations of Chinese and Soviet geographers in the Amur
Basin. Izv. AN SSSR Ser. geog. no.2:166-168 Mr-Apr '57. (MIRA 10:12)

(Amur Valley--Natural resources)

(China--Relations (General) with Russia)

(Russia--Relations (General) with China)

SOV-5-58-3-36/39

AUTHOR:

Chichagov, V.P.

TITLE:

Basic Characteristics of the Development of the Relief and Peculiarities of the Hydrographical System of the South-Eastern Trans-Baykal Region (Osnovnyye cherty rel'yefa i osobennosti gidrograficheskoy seti yugo-vostochnogo Zabaykal'ya)

PERIODICAL:

Byulleten' Moskovskogo obshchestva ispytateley prirody, Otdel geologicheskii, 1958, Nr 3, pp 161 - 162 (USSR)

ABSTRACT:

This is a resume of a lecture given on Feb 25, 1958. According to morphologic and paleogeographic characteristics, the relief of the south-eastern Trans-Baykal region can be subdivided into 3 large geomorphological districts: 1) the western geomorphological district of the Daurskiy and Boshchovochnyy ridges; 2) the central district of eroded, sedimentary plains and the plateau region of the middle course of the Onon river; 3) the eastern geomorphological district

Card 1/2

SOV-5-58-3-36/39
Basic Characteristics of the Development of the Relief and Peculiarities
of the Hydrographical System of the South-Eastern Trans-Baykal Region

of the low ridge region of the inter-river region of the Shilka and Argun' rivers. These geomorphological districts are separated by ancient depressions. During the Quaternary Period, the river system underwent fundamental changes, evidenced by inundated valleys located in the inter-river regions of the Ingoda, Chikoy and Khilok rivers.

1. Geology--USSR
2. Inland waterways--USSR

Card 2/2

AUTHOR: Chichagov, V.P. SOV-26-58-9-25/42
TITLE: A Flood of the Sungari (Navodneniye na Sungari)
PERIODICAL: Priroda, 1958, Nr 9, p 109 (USSR)
ABSTRACT: Information is given on yearly September flood conditions of the Sungari, the largest right affluent of the Amur river. This recurring phenomenon is due to the monsoon climate and goes far beyond the extent of the spring flood in April.
ASSOCIATION: Institut geografii Akademii nauk SSSR /Moskva (The Institute of Geography AS USSR /Moscow)
1. Floods 2. Inland waterways--USSR

Card 1/1

Chichagov, V. P.

12-1-20/26

AUTHORS: Nikol'skaya, V.V. and Chichagov, V.P.

TITLE: Some New Books from the Magadan Publishing House (O nekotorykh novykh knigakh Magadanakogo knizhnogo izdatel'stva)

PERIODICAL: Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958, 70, # 1, pp 93 - 95 (USSR)

ABSTRACT:

The authors review several books of interest to geographers. "The Chukotka Forests" (Lesa Chukotki) by G.F. Starikov and P.N. D'yakonov represents a collection of material gathered over 10 years of biocological investigations. The reviewer states that inspite of some deficiencies the book is a valuable scientific work.

"The Chukotka National Okrug" (Chukotskiy natsional'nyy okrug) by I.V. Gushchin and A.I. Afanas'yev contains historical and geographical essays, which are sometimes superficial.

"Agriculture of the Magadan Oblast" (Sel'skoye khozyaystvo Magadanskoy oblasti) by A.P. Vas'kovskiy, P.P. Pasechnik, S.V. Fadryga, and O.K. Chalenko, tells of the experiences of agricultural workers of the Magadan oblast', which is the more interesting because of the utilization of new areas

Card 1/2

Some New Books From the Magadan Publishing House

12-1-20/26

in the north. In spite of the many of authors the book is a complete and finished work.

"A Volcano in the Polar Region" (Vulkan v. Zapolyar'ye by Ye.K. Ustiyev is a description of a trip to an extinct volcano in the Anyuy river basin which is of great interest to geographers.

AVAILABLE: Library of Congress

Card 2/2

SOV/10-59-1-16/32

AUTHOR: Chichagov, V.P.

TITLE: Scientific Research Methods (Metodika nauchnykh issledovaniy) An Attempt at Estimation of the Genesis of Loose Deposits in Accordance With the Morphology of Sand Grains (Opyt opredeleniya genезisa rykhlykh otlozheniy po morfologii peschanykh zeren)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya geograficheskaya, 1959, Nr 1, pp 109-114 (USSR)

ABSTRACT: This article explains how the genesis of loose deposits can be ascertained by way of laboratory examinations of the surfaces of the sand grains. This method was used by the author for substantiation of his contention that the deposits of the Ogoronno-Depskaya saddle-land in the Amur basin could not have been of aeolean origin, as a result of alluvial processes but must have been brought there by a glacier.

Card 1/2

SOV/10-59-1-16/32

Scientific Research Methods; An Attempt at Estimation of the
Genesis of Loose Deposits in Accordance With the Morphology of
Sand Grains

There are 2 tables, 1 graph, 1 diagram and 13 refer-
ences, 12 of which are Soviet and 1 French.

ASSOCIATION: Institut geografii AN SSSR (Institute of Geography
of the AS USSR)

Card 2/2

CH. CHACOV, V.P.

507/10-59, 4-25/29

30

Authors: A.A. and Mintz, A.A.

Title: The Sixth Conference of Young Scientific Workers of the Institut Geografii in USSR (Institute of Geography AS USSR)

Periodical: Izvestiya Akademii nauk SSSR, Seriya Geograficheskaya, 1959, No. 4, pp 152-153 (USSR)

Abstract: The article covers the Sixth Conference of Young Scientific Workers of the Institute of Geography AS USSR which took place in mid-March, 1959. 35 reports were read by the following scientific workers: I.S. Gluzh reported on Some Genetic Regularities in the Distribution of Atmospheric Precipitation; M. Kobayashi and M. Kozlovskaya on structural models of the atmosphere; V. K. Kozlovskaya on the connection between the relief and tectonic conditions in the Trans-Ural Area; S.P. Orzhinskiyeva evaluated the evaporation according to the water balance method from the African continent; M.Ya. Mikhovaya discussed evaporation problems in the Gulf of Kara-Bo-Gaz; M. Khabdaga and G.Z. Minayeva reported on the impact of solar radiation on snow during its melting in the Trans-Volga region; A.Y. Kachin spoke on observations near the Ebrus Weather Station; Ye. Ya. Gurin reported on some conditions in the mountains of Central Caucasus; K. Kozlovskaya reported on his new method to measure the amount of snow carried by winds, whereby snow-flakes are recorded by a photoelectric device; Yu.L. Kuznetsov, M.A. Kuznetsov, and M.I. Rudnev spoke on the heat balance observations they compiled at the Zagorskaya Scientific Station near Moscow; S.Y. Bass lectured on spring water discharge and soil washout also studied there; N.M. Brayel and I.S. Speshnitskaya lectured on how to calculate the maximal spring water discharge in the Lena and Lena rivers according to the method of M.I. Shubny; E.A. Mikhovaya lectured on ten levels of the atmosphere on the lake level in the Turay depression during 1949-1958; L.I. Kuznetsov reported on the rivers and lakes of the Vitiin plateau; M.Y. Rukhlov discussed Filocosm forms of relief in the river valleys of the Enns basin; A.A. Velichko elucidated on loess deposits in the central area of the Russian plain; B.A. Mikhovskiy lectured on Tarrant-Like phenomena in Dagestan; and A.I. Kuznetsov on Classification of Towns in Central Caucasus; I. Kuznetsov lectured on the relief of the Caucasus; and M.Y. Kuznetsov lectured on the division of the Trans-Ural wood-and-steppe area into single relief types!

Card 1/5

Card 2/5

Card 3/5

SOV/10-59-7-24/25

AUTHOR: Chichagov, V.P.

TITLE: Problems of Physical Geography of the Amur Basin at the Third Session of the Joint Scientific Council of Amur Expedition of the AS USSR and the Hei-lung-ch'iang Expedition of Red China.

PERIODICAL: Izvestiya Akademii nauk, SSSR, Seriya geograficheskaya, 1959, Nr 5, pp 136-139 (USSR)

ABSTRACT: The above mentioned session took place from 7 to 12 May 1959 in Moscow. The results of the compound scientific research work of both expeditions were summed up. After a few introductory words by Academician V.S. Nemchinov and by Chu K'e-chen, vice-president of the AS of Red China full reports on the activity of expeditions were read for the Amur Expedition - by its leader S.V. Klopov, and for the Hei-lung-ch'iang Expedition - by Chu Chih-fan, leader of the Chinese counterpart. Several reports were read. The geomor-

Card 1/3

SOV/10-59-7-24/25

Problems of Physical Geography of the Amur Basin at the Third Session of the Joint Scientific Council of Amur Expedition of the AS USSR and the Hei-lung-ch'iang Expedition of Red China

phological and paleographic problems were reported on by Professor Ting Hsi-chi (the Kamsu Pedagogical Institute), V.V. Nikol'skaya (institut geografii AN SSSR) (Institute of Geography of the AS USSR), Chang-Wen-yu, M.G. Organov (Dal'nevostochnyy filial Sibirskogo otdel'eniya AN SSSR) (the Far-East Branch of the Siberian Section of the AS USSR), Sun Shu, Yu.A. Khodak (SOPS AS USSR). The problems of soil geography were reported on by: Yu.A. Liverovskiy and L.P. Rubtsova (Pochvennyy Institut AN SSSR) (Soils Institute of the AS USSR), Sung Ta-ch'uan and Ch'eng Po-Jung (Institute of Forest and Soil of the AS CPR), V.V. Yegorov and V.S. Muratova (Soil Institute of the AS USSR), G.I. Ivanov (DVF SO AS USSR), A.N. Firsov and N.D. Pustovoytov (SOPS AS USSR), N.I. Gorbunov (Soil Institute of the AS USSR);

Card 2/3

SOV/10-59-7-24/25

Problems of Physical Geography of the Amur Basin at the Third Session of the Joint Scientific Council of Amur Expedition of the AS USSR and the Hei-lung-ch'iang Expedition of Red China

Ye.I. Buzlukova, V.M. Burkova, A.A. Gorshkova (VSP SO AS USSR). The problem of plant geography reports were read by : Chu Chih-fan (Institute of Soil and Forest of AS CPR); V.B. Sochava (Botanicheskiy Institut AN SSSR)(Botanical Institute of the AS USSR); V.Ya. Koldanov (Institut lesa AN SSSR) (Forest Institute of the AS USSR); V.A. Rozenberg, Yu.A. Man'ko, G.E. Kurentsova and A.I. Kurentsov (DVF SO AS USSR).

Card 3/3

VITVITSKIY, G.N.; KRAVCHENKO, D.V.; NIKOL'SKAYA, V.V.; CHICHAGOV, V.P.;
KURENTOV, A.I.; VOROB'YEV, D.P.; LIVEROVSKIY, Yu.A.; KARMANOV, I.N.;
PETROV, B.F.; KOLESNIKOV, B.P.; KABANOV, N.Ye.; DMITRIYEVA, N.G.;
RIKHTER, G.D., doktor geogr. nauk, otv. red.; LADYCHUK, L.P., red.
izd-va; DOROKHINA, I.N., tekh. red.

[The Far East; its physical geography] Dal'ni Vostok; fiziko-
geograficheskaya kharakteristika. Moskva, 1961. 436 p.

(MIRA 14:9)

1. Akademiya nauk SSSR. Institut geografii. 2. Institut geografii
AN SSSR (for Vitvitskiy, Kravchenko, Nikol'skaya, Chichagov). 3. Dal'-
nevostochnyy filial AN SSSR (for Kurentsov, Vorob'yev). 4. Pochven-
nyy institut AN SSSR (for Liverovski, Karmanov, Petrov). 5. Biologi-
cheskiy institut Ural'skogo filiala AN SSSR (for Kolesnikov). 6. In-
stitut lesa AN SSSR (for Kabanov). 7. Tsentral'nyy institut prognozov
(for Dmitriyeva).

(Soviet Far East—Physical geography)

KORZHUYEV, S.S.; TIMOFEYEV, D.A.; CHICHAGOV, V.P.

An interesting monograph on the morphostructure of the Lake Baikal region ("Mesozoic and Cenozoic depressions of the Lake Baikal region" by N.A.Florensov. Reviewed by S.S.Korshuev, D.A.Timofeev, V.P.Chichagov). Izv.AN SSSR.Ser.geog. no.3:129-133 My-Je '61.

(MIRA 14:5)

(Baikal Lake region -Geology, Structural)
(Florensov, N.A.)

CHICHAGOV, V.P.

Study of phenology in connection with the formation of relief.
Biul. MOIP. Otd. geol. 36 no.2:142-143 Mr-Ap '61. (MIRA 14:7)
(Phenology)

GRICHAGOV, V.P.

New works on the physical geography of the Amur Valley. Izv. Vses.
geog. ob-va 93 no.4:357-359 J1 - Ag '61. (MIRA 14:7)
(Amur Valley--Physical geography)

CHICHAGOV, V.P.

Zonal characteristics of the development of slopes in southeastern Transbaikalia and the adjacent region of the Chinese and Mongolian People's Republics. *Biul.MOIP.Otd.geol.* 36 no.6:127 N-D '61.
(MIRA 15:7)

(Transbaikalia--Slopes (physical geography))

CHICHAGOV, V.P.

Comparative characteristics of Arizona-Sonora and Dauria-Mongolia
pediments. Biol.MOIP Otd.geol. 37 no.1:158-160 Ja-F '62.

(MIRA 15:2)

(Pediments)

CHICHAGOV, V.P.

Defending doctor's dissertations at the Institute of Geography of
the Academy of Sciences of the U.S.S.R. in 1861. Izv.AN SSSR.Ser.
geog. no.3:149-151 My-Je '62. (MIRA 15:5)
(Geography) (Dissertations, Academic)

CHICHAGOV, V.P.

Morphologic and morphometric features, and the origin of quartz
sand in the Dalai Nor region. Izv. AN SSSR. Ser. geog. no.4:75-81
Jl-Ag '62. (MIRA 16:5)

1. Institut geografii AN SSSR.
(Hulun Nor region—Sand)

NIKOL'SKAYA, V.V.; CHICHAGOV, V.P.

Quaternary glaciation in the Amur basin. Trudy Kom.chetv.per.
19:260-267 '62. (MIRA 16:1)
(Amur Valley—Glacial epoch)

CHICHAGOV, V.P.; DEVDARIANI, A.S.

Morphometry in H. Baulig (France) and A. Strahler's (U.S.A.)
works. Vop. geog. no.63:153-158 '63. (MIRA 17:3)

NIKOL'SKAYA, V.V.; TIMOFEYEV, D.A.; CHICHAGOV, V.P.

Zonal types of pediments in the Amur basin. Zap. Zabaik, otd.
Geog. ob-va SSSR no. 24:67-86 '64 (MIRA 19:1)

CHICHAGOV, V. V.

Literatura Po Voprosam Dispetcherizatsii Kamennougol'noy Promyshlennosti.
Bibliografiya (Po 15 Mart 1934 G). Gornyy Zhurnal No 9, 1934, Str. 63-66
AES In Goryuchiye Slantsy, 1935, No 5, 78

SO:

Goryuchiye Slantsy # 1934-35, TN .871
G .74

CHICHAGOV, V. V. 2

M

The Phenomenon of "Growth" in "Y" Alloy. V. V. Chichagov and K. I. Demichova (*Sovietmet.*, (Acropolis *Int.*), 1968, (9), 33-37).—[In Russian.] The alloy with copper 4.0, nickel 2.0, magnesium 1.5, iron 0.7, silicon 0.7%, aluminum the remainder, was cast in 17-mm-diameter chill moulds and the increase in length ("growth") of special specimens was measured with a Martens mirror extensometer. The maximum growth occurs in alloy specimens cast in a cold mould, while the least growth was observed in castings poured in a hot mould (300° C.) and subsequently annealed at 410° C. Growth is caused by the appearance of a new constituent from the solid solution.—N. A.

ASME-ISA METALLURGICAL LITERATURE CLASSIFICATION

62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
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ZINOVIEV, V. V.

MA

23

Zinoviev, V. S., and V. V. Chibrikov. *Non-Ferrous Alloys in Aircraft Construction*. (In Russian.) 162. 1940. Moscow: Oborongiz. (5 illus.)

14113

CHICHAGOV V.V. 1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX 2ND AND 4TH ORDERS

CA 25

New method for determining the resistance of dyes against friction. S. P. Chichagov. *Org. Chem. Ind. (U. S. S. R.)* 7, 247-50 (1940).—Wind the dyed fabric (3 × 60 cm.) around a wooden cylinder and in contact with this wooden fabric place a 5 × 40-cm. piece of white calico to which a 1-kg. load is attached. Place the calico in such a manner that it covers 1/2 of the cylinder area. Rotate the wooden cylinder at a rate of 100 r. p. m. so that the dyed material will rub against the calico. Rotate for 60 min. (30 min. along and 30 min. against the nap). Cut out the colored section from the calico and immerse for 30 min. in 15 ml. of org. solvent contg. 13.5 ml. chlorobenzene and 1.5 ml. EtOH. Ext. the dye by boiling the solvent for 10-15 min. Measure the soln. in a colorimeter equipped with a 50 photonic. cell. So regulate the app. that the clear solvent will show a deviation of 100 on the galvanometer and all colored solns. will give indications less than 100. Compare the colored solns. with prepn. solns. of the corresponding indigo and indanthrone dyes. Instructions are given for the prepn. of the standard dye solns. B. Z. Kamich.

450-51A METALLURGICAL LITERATURE CLASSIFICATION

6-ETT-572-7482C

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

LASHKO, N.F.; SERGHEEV, G.Ya.; CHICHAGOV, V.V.; GEVELING, N.V., redaktor.

[Effect of deformation on the recovery capacity of duralumin] Vliianie
deformatsii na effekt vosvrata v duralumine. Pod red. N.V.Gevelinga.
[Moskva] Izd. Akademii, 1945. 98 p. (Trudy Voennoi vozdukhnoi ordena
Lenina akademii KA im. Zhukovskogo, vyp. 153) (MLRA 7:3)
(Duralumin) (Deformations (Mechanics)).

CHICHAGOVA, M.B.

Raising ferns from spores in Knop's nutritive medium. Biol. Glav.
bot. sada no.30:96 '58. (MIRA 11:6)

1. Botanicheskiy sad Moskovskogo gosudarstvennogo universiteta.
(Ferns)

~~SECRET~~
KURTOV, I.F.; ZAKHAROV, V.A.; CHICHAGOVA, N.P.; RYABOKON', S.V.

Effect of bismuth and boron on curtailing the annealing of
white iron. Lit.proisv. no.12:20-21 D '57. (MIRA 11:1)
(Iron-Bismuth-boron alloys--Metallography) (Iron--Heat treatment)

SOV/128-58-11-2/24

AUTHORS: Kurtov, I.F., Chichagova, N.P. and Zakharov, V.A.

TITLE: Eutecticity as a Technological and Qualitative Factor of Magnesium Cast Iron (Eitektichnost' kak faktor tekhnologichnosti i kachestva magniyevogo zhuguna)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 11, pp 3-4 (USSR)

ABSTRACT: To eliminate the technological deficiencies of magnesium cast iron, it is recommended to use cast iron of a eutectic composition, the positive effect of which on casting properties is explained by the minimum and constant temperature of its hardening. The technological process in the production of eutectic cast iron is simplified due to the minimum temperature of melting. The possibility to lower the cast iron temperature prior to modification without diminishing its casting qualities is a positive factor for its wider use in the machine-building industry. In the production of castings of different thickness, the proper pro-

Card 1/2

SOV/128-58-11-2/24

Eutecticity as a Technological and Qualitative Factor of Magnesium Cast Iron

portion of carbon and silicon for the furnace charge is selected and the silicon amount necessary for modification is added. There are 3 tables and 1 microphoto.

1. Iron-magnesium castings--Properties
2. Iron-magnesium castings--Casting
3. Iron-magnesium castings--Temperature factors
4. Eutectics--Applications

Card 2/2

SOV/113-58-12-11/17

AUTHORS: Kurtov, I.F., Candidate of Technical Sciences, Ponomarev, A.V., Zakharov, V.A., Chichagova, N.P., Sveshnikov, D.A.

TITLE: Experience in Manufacturing Cast Crankshafts (Opyt izgotovleniya litykh kolenchatykh valov)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 12, pp 33 - 37 (USSR)

ABSTRACT: At the Gor'kiy Automobile Plant, the casting of crankshafts for the engine of the "Volga" automobile has been developed. The casting of crankshafts reduces the consumption of metal. A comparison of a forged and a cast shaft is given in Table 1. The chemical composition of the metal and the thermal processing are very important for the casting. The cast iron should contain a high percentage of manganese and chromium and a low percentage of sulfur (Table 2). The iron is prepared in the basic furnace DSN-3. As a furnace charge, cast iron types LK-4, LK-3, LK-2, ferro-chromium Khr6, etc, are used. The cast iron is modified by metallic magnesium in the autoclave under a pressure of 5.0-5.5 atm. The casting molds are made of a mixture of 92% quartz sand, type K-70/140, and 8 % powderized bakelite. The molds are manufactured on an automatic two-position machine AKF-2

Card 1/2

Experience in Manufacturing Cast Crankshafts

SOV/113-58-12-11/17

(Figure 3). The hot molds are taken from the conveyer and put into special adjusting devices for cooling (Figure 4). After this they are fastened with cramps on a conveyer (Figure 6). The casting is done in a horizontal position (Figure 7). Table 3 shows the mechanical properties of samples taken out of crankshafts. It has been shown that the wear-resistance is adequate. There are 8 photos, 3 tables, and 4 references, 3 of which are Soviet and 1 English.

ASSOCIATION: Gor'kovskiy avtozavod (Gor'kiy Automobile Plant)

Card 2/2

18(2)

SOV/128-59-8-15/29

AUTHOR:

Kurtov, I.F., Candidate of Technical Sciences, Zakharov, V.A., Chichagova, N.P., and Ryabokon', N.P., Engineers

TITLE:

Production of Malleable Iron Processed with Bismuth and Boron

PERIODICAL:

Liteynoye proizvodstvo, 1959, Nr 8, pp 31 - 34 (USSR)

ABSTRACT:

About 30,000 tons of castings have already been made from malleable iron which was inoculated by bismuth and boron in the Gor'kiy automobile plant. The melting of malleable iron is done by the double-process (cupola furnace and electric furnace) using 40% iron and 40% steel from waste materials, further, 3 - 3.5% of ferrosilicium from the blast-furnace and the rest of the fresh iron from other plants. The content of other elements is given in table 1. The grained bismuth and ferro-silico-boron is added during the outflow of iron from the electric furnace by means of an automatic dosage device. At the same time, pieces of aluminum, weighing 0.12 - 0.15 kg are added to the melted iron. Generally 0.002% of boron and 0.003% of

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SOV/128-59-8-15/29

Production of Malleable Iron Processed with Bismuth and Boron.

bismuth are added to the weight of the melted iron. The mechanical characteristics of this modified malleable iron are the same as of iron KCh - 35-10 (Table 2). The casting characteristics were studied on the casted spirals (Fig 2) and are mentioned in table 3. The fluidity of this inoculated iron increases 7%. The casting spoilage is the same as with castings from other non-modified iron. The percentage of Si can be increased from 1.3% to 1.72% (Fig 4) that shortens the graphitization process 5 times. Also the process of annealing decreases 27%. This enables savings of 2.65 million rubles in a year. For removal of gases, a special, powerful and mobile ventilation machine is installed. For an estimation of boron in the iron, the spectrographs ISP-22 or SP-28 were used (analytic lines are of B - 2497.7 Å and of Fe - 2496.5 Å). For a quantitative estimation of boron, a microphotometer MF-2 was used which enables evaluation of a concentration of 0.0005 - 0.004%. The bismuth was estimated by the photocolometric

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Production of Malleable Iron Processed with Bismuth and Boron

method. There are 3 photographs, 1 graph, 4 tables
and 10 references, 9 of which are Soviet and 1 Eng-
lish.

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S/128/60/000/002/002/002
A133/A133

AUTHORS: Shkol'nikov, E. M., Bondarenko, L. G., Zakharov, V. A.,
Chichagova, N. P.

TITLE: The practice of modifying cast iron with cerium alloys

PERIODICAL: Liteynoye proizvodstvo, no. 2, 1960, 36-37

TEXT: Reporting on a work carried out by Giredmet, NAMI and the Gor'kovskiy avtozavod (Gor'kiy Automobile Plant) to study the effect of cerium as a modifier of cast iron, the authors point out that misch metal was the first cerium-type modifier used to obtain nodular cast iron. Since cerium is no more in such short supply and the production will be considerably increased under the present Seven-Year Plan, the cost of cerium modifiers will be cut and, according to the author, will amount to 20-25 rubles/kg. Laboratory tests were carried out to study the modification effect of misch metal, ferrocerium and ferrocerium alloys with up to 70% magnesium additions on cast iron whose composition was similar to that used at the Gor'kiy Automobile Plant for the fabrication of

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The practice of ...

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A133/A133

crankshafts, viz. 3.2-3.5% C, 2-2.5% Si, 0.8% Mn, 0.1-0.2% P, 0.007-0.010% S (cast iron previously desulfurized by magnesium), 0.025-0.030% S (cast iron obtained from a heat of foundry blast-furnace pig iron and steel), 0.09-0.10% S (cupola iron). The laboratory tests proved that the modifying effects of misch metal and ferrocerium were practically equal, so that ferrocerium is given preference since it is cheaper. The authors emphasize that it is expedient to add a certain amount of Mg to the ferrocerium, and Giredmet has developed ferrocerium alloys with 70% Mg. If up to 5% Mg is added, there is no pyroeffect during the addition of foundry alloy; up to 15% Mg results in an insignificant pyroeffect. If the Mg content is increased, all those difficulties will arise which are typical for the modification with pure Mg. The ferrocerium consumption is considerably reduced if 10-12% Mg are added; therefore, all the following laboratory tests were carried out with ferrocerium alloys containing 12-15% Mg - Φ UM (FTSM). The residual cerium content in cast iron after modification amounts to 0.03-0.06%. The residual S content in cerium cast iron

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The practice of ...

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A133/A133

is always higher than in magnesium cast iron. Of an initial S content of 0.2 and 0.4%, some 50% is eliminated. With an FTSM consumption of 0.95% the S content of cupola iron decreases from 0.10 to 0.06%. In contrast to the laboratory tests, the first experimental modification of crankshaft cast iron with ferrocerium of 15% Mg at the Gor'kiy Automobile Plant showed a perceptible pyroeffect and intensive bubbling of the cast iron in the ladle. To investigate this phenomenon a series of FTSM alloy melts with different Mg contents was produced, and it was found that, under industrial conditions, only cerium alloys with up to 7% Mg addition rendered satisfactory results. For subsequent tests some 200kg FTSM-6 with 6-7% Mg were produced, of which about 1,000 crankshafts for "Volga" and "Chayka" cars were cast. During the whole test period not a single crankshaft was rejected because of "black spots", and since 1957 the Plant has not received complaints because of defects of the magnesium and cerium cast iron crankshafts. The main technological features of the FTSM-6 cast iron modification are the following: The FTSM-6 and CM75 (Si75)

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The practice of ...

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modifiers are added to the cast iron successively; 0.3% FTsM-6 in lumps weighing 150-250 kg are put into the ladle when the cast iron is tapped from the electric furnace, and 0.4% Si75 are added to the cast iron in the pouring ladle. Soda is used as slagging additive, the addition of cryolite is not necessary. The S content of the cast iron prior to modification should not exceed 0.02%. The actual tapping temperature of the metal should be in the range of 1,420-1,450°C. The advantages of the FTsM-6 alloy over metallic magnesium as modifier are: absence of the pyroeffect, insensitiveness towards a temperature increase of cast iron prior to modification, a practically non-existing temperature drop of the metal during modification (20°C), the possibility of reducing the cast iron superheating temperature in the electric furnace prior to tapping by 120-150°C, which will increase the furnace productivity by 12-15%, and the insensitiveness towards demodifiers (Ti, Pb, Sn). A disadvantage of the FTsM-6 alloys is that it increases the tendency of cast iron to form cementite on the surface. There are 4 figures

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CHICHAGOVA, N. P.

S/137/61/000/011/087/123
A060/A101

AUTHORS: Ioffe, V. M., Burov, V. M., Shkol'nikov, E. M., Bondarenko, L. G.,
Zakharov, V. A., Chichagova, N. P.

TITLE: Corium modifiers for obtaining cast iron with spherical graphite

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 3, abstract 1119
(V sb. "Polucheniye izdeliy iz zhidk. met. s uskor. kristallizatsiyey". Moscow - Kiyev, Mashgiz, 1961, 147-149)

TEXT: The conditions were clarified under which it is possible to use for modifying a Ce alloy instead of Mg. In using the Ce alloy, it can be fed into the ladle directly while filling it with the crude iron. The necessity for the high-temperature heating up of the crude iron and of using an autoclave and cryolite drops out. It was established that Fe-Ce alloy with 5 - 8% Mg is suitable for use under steel-plant conditions. 25 experiments were carried out in modifying crude iron with Ce. An alloy of Zr (Ф1М6 [Ftс%]) was introduced into the ladle in the quantity of 0.27 - 0.28 % of the weight of the crude iron. It was established that alloys of Fe-Ce with 5 - 8% Mg make it possible to modify the crude iron directly in the ladle without any protective devices, and the

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Cerium modifiers for obtaining ...

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crude iron undergoing modification by a Ce alloy should not contain $>0.03\%$ S, so that the casting be pure and have no nonmetallic impurities - modification products. The microstructure and the characteristics of Mg- and Ce-crude irons are practically the same.

A. Savel'yeva

[Abstracter's note: Complete translation]

Card 2/2

NIKOL'SKAYA, V.V.; TIMOFEYEV, D.A.; CHICHAGOV, V.P.

Changing the natural conditions of the Amur River Basin in connection
with plans for the regulation of river runoff. Izv. AN SSSR. Ser.
geog. no.5:59-69 S-0 '61. (MIRA 14:9)

1. Institut geografii AN SSSR.
(Amur Valley--Water resources development)
(Amur Valley--Physical geography)

VELICHKO, A.A.; DEVIRTS, A.L.; DOBKINA, E.I.; MOROZOVA, T.D.; CHICHAGOVA,
O.A.

e First determinations of the absolute age of fossil soils in the
loss of the East European Plain. Dokl. AN SSR 155 no. 3:555-558
Mr '64. (MIRA 17:5)

1. Institut geografii AN SSSR i Institut geokhimii i analiti-
cheskoy khimii im. V.I.Vernadskogo AN SSSR. Predstavleno
akademikom I.P.Gerasimovym.

KISELEV, I.I.; BORISOV, M.I.; YASINOVSKIY, B.S., inzh.; SANNIKOV, Yu.K., inzh.;
 SOKOLOV, V.A., inzh.; LEVCHENKO, L.D., inzh.; MALOYEV, G.A., inzh.;
~~CEICHAKOV, K.K., inzh.~~; BARYKIN, V.I., inzh.; FREYDELIN, A.Ya., inzh.
 GULYAYEV, A.I., inzh.; STIGNEYEV, Ya.F., inzh.; SHAGANOVA, K.N., inzh.;
 KHELIMSKIY, I.Ye., inzh.; AVROV, A.M., inzh.; DEMIDOVA, M.I., inzh.;
 NIKIFOROVA, Ye.D., inzh.; KLIBANOVA, F.I., inzh.; CHIVKUNOV, K.I.,
 inzh.; STOROZHKO, I.G., inzh.; NOVAKOVSKIY, Ye.Ya., inzh.; GOYKHTUL',
 A.O., inzh.; TARASOV, A.M., inzh.; SEISHKO, A.P., inzh.; UVAROV,
 P.T., ekonomist; DRAGUNOV, M.V., ekonomist; KARANDASHOV, A.A.,
 ekonomist; KONKIN, M.V., ekonomist; (OREV, M.S., ekonomist. Pri-
 nimali uchastiye: LAPIN, T.I.; RAMENSKIY, Yu.A.; KADINSKIY, B.A.;
 SOKOLOV, S.D.; STOROZHKO, I.G.; FOMINYKH, A.I.. POLYAKOVA, N.,
 red.; SMIRNOV, G., tekhn.red.

[Organisation and improvement of production; practices of the
 Gorkiy Automobile Plant] Organizatsiia i sovershenstvovanie
 proizvodstva; opyt Gor'kovskogo avtomobil'nogo zavoda. Moskva, Gos. izd-vo
 polit. lit-ry, 1956. 332 p. (MIRA 12:2)

1. Direktor Gor'kovskogo avtomobil'nogo zavoda (for Kiselev).
 2. Glavnyy inzhener Gor'kovskogo avtomobil'nogo zavoda (for Borisov).
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 Polyakova, Smirnov).
- (Gorkiy--Automobile industry)

CHICHANOV, K.

"The Development of Agricultural Cooperatives in Czechoslovakia. p. 56", (KOOPERATIVNO ZEMEDELIE) Vol. 8, No. $\frac{1}{2}$, 1953, Sofiya, Bulgaria.

SO: Monthly List of East European Accessions L.C. Vol. 2, No. 11, Nov. 1953, Uncl.

CHICHANOV, K.

"Economic distribution of land in collective farms" (p.9) KOOPERATIVNO ZEMEDELIE
(Ministerstvo na zemedeliето) Sofiya Vol 8 No 7 1953

SO: East European Accessions List Vol 2 No 7 Aug 1954

GHICHANOV, K.

"Fight against silt at Georgi Dimitrov Dam" (p. 10)

"Working peasants at summer resorts" (p.12)

KOOPERATIVNO ZEMEDELIE

(Ministerstvo na zemedelieto) Sofiya Vol 8 No 8 1953

SO: East European Accessions List Vol 2 No 7 Aug 1954

1. CHICHASOV, V. Ya.
2. USSR (600)
4. Sprinklers
7. DDA-80 two-bracket sprinkling apparatus. Gidr. i mel. 5, No. 3, 1953.

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

CHICHASOV, V.Ya., kandidat tekhnicheskikh nauk.

Economics of sprinkling vegetable crops. Gidr. i mel. 8 no.
6:3-11 Je '56. (MLRA 9:9)

(Sprinkler irrigation) (Vegetable gardening)

BOKHIN, F.I., kand.sel'skokhozyaystvennykh nauk; CHICHASOV, V.Ya., kand.
tekhnicheskikh nauk

International scientific methodological conference on work mechan-
ization and the use of plastics in irrigation and drainage engineering.

Gidr. i mel. 12 no.11:44-55 N '60.

(MIRA 14:1)

(Irrigation—Congresses)

(Drainage—Congresses)

(Plastics)

CHICHASOV, V.Ya., kand.tekhn.nauk

Sprinkler and gravity-flow irrigation abroad; according to the materials of the Fourth International Congress on Irrigation and Drainage in 1960. Gidr. i mel. 14 no.2:48-55 F '62.

(MIRA 15:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii im. A.N.Kostyakova.

(Irrigation--Congresses)

SHAUMYAN, V.A., doktor tekhn. nauk, prof., otv. red.; BOKHIN, F.I.,
kand. sel'khoz. nauk, zam. otv. red.; KOKOVIN, Ye.V., kand.
tekhn. nauk, red.; KOP'YEV, Ye.I., inzh., red.; POPOVA, V.Ya.,
kand. tekhn. nauk, red.; SAMSONOVA, N.P., kand. tekhn. nauk,
red.; CHICHASOV, V.Ya., kand. tekhn. nauk, red.; RODIN, Ya.S.,
red. izd-va

[Mechanization of irrigation and drainage work and use of plastic
materials in irrigation and drainage construction; materials]Me-
khanizatsiia gidromeliorativnykh robot i ispol'zovanie plastmass
v gidromeliorativnom stroitel'stve; materialy Mezhdunarodnogo na-
ucho-metodicheskogo soveshchaniia. Moskva, Izd.VNIIGiM, 1962.
242 p. (MIRA 15:12)

1. Nauchno-metodicheskoye i koordinatsionnoye soveshchaniye
nauchno-issledovatel'skikh uchrezhdeniy sotsialisticheskikh stran
po mekhanizatsii stroitel'nykh i ekspluatatsionnykh gidromeliora-
tivnykh robot i ispol'zovaniyu plastmass v gidromeliorativnom
stroitel'stve, Moscow, 1960. 2. Vsesoyuznyy nauchno-issledovatel'-
skiy institut gidrotekhniki i melioratsii im. A.N.Kostyakova (for
Shaumyan).

(Irrigation--Congresses) (Drainage--Congresses)

CHICHASOV, V. Ia., kand. tekhn. nauk

Sprinkling as a method for protecting farm crops against frost.
Gidr. i mel. 15 no. 4:44-54 Ap '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii im. Kostyakova.
(Frost protection) (Sprinkler irrigation)

CHICHASOV, V. Ya., kand. tekhn. nauk

Mobile equipment for the irrigation of small plots. Gidr. i mel.
16 no.12:19-29 D '64 (MIRA 18:2)

1. Goszemvodkhoz SSSR.

CHICHASOV, V.Ya., kand. tekhn. nauk; YERKHOV, N.S., inzh.

Absorption of water by the soil during continuous sprinkling.
Gidr. i mel. 17 no.7:8-15 J1 '65. (MIRA 18:12)

CHICHAYEV, I.

36770. IZMAYLOV, F. i CHICHAYEV, I. po povodu stat'i (F. Uchevatkina i P. Kryuchkovoy) "Letniye posevy lyutserny v rastushchiy khlopchatnik," opublikovannoy v gazete "Pravda Vostoka" 20 avgusta 1949 goda. Sots. sel. khoz-vo' Uzbekistana, 1949, No. 4, c. 82-84

80: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

SOLOMYKIN, Aleksandr Pimenovich; NYZHNYK, F.A.; TSEDRIK, D.F.;
CHICHAYEVA, L.L., red.; PROKOF'YEVA, L.N., tekhn. red.

["Khersonets" corn harvesting combine] Kukuruzoborochnyi kombin "Khersonets". Moskva, Sel'khozizdat, 1962. 142 p.
(MIRA 15:7)

(Corn (Maize))--Harvesting
(Combines (Agricultural machinery))

VOLKOV, Vladimir Fedorovich; CHICHENEV, Aleksandr Ivanovich; GAPCHUK, A.A., retsenzent; GEYNIKHS, G.K., retsenzent; NESTEROV, Yu.F., nauchnyy red.; VLASOVA, Z.V., red.; KRYAKOVA, D.M., tekhn. red.

[Ship refrigerating machines and installations] Sudovye kholodil'-nye mashiny i ustanovki. Leningrad, Gos. soizuznoe izd-vo sudostroit. promyshl. 1961. 261 p. (MIRA 15:2)
(Refrigeration on ships)

TSIREL'SON, Simon Aronovich; RAZRAN, Mikhail Avraamovich. Primala
uchastiye TSIREL'SON, E.A.; MIROPOL'SKIY, S.V., kand. biol.
nauk, retsenzent; CHICHENEV, A.I., inzh., retsenzent;
BOBOSHKO, S.B., nauchnyy red.; GORDON, L.A., nauchnyy red.;
YEGOROV, S.A., nauchnyy red.; KAZAROV, Yu.S., red.; KRYAKOVA,
D.M., tekhn. red.

[Livability on board ships]Obitaemost' sudov. Leningrad,
Sudpromgiz, 1963. 266 p. (MIRA 16:3)
(Merchant seamen--Accommodations on shipboard)
(Ships--Heating and ventilation)

MAKAROV, B.F., kand. tekhn. nauk; CHICHENEV, N.A., inzh.

Snapping of thin elastic panels under the action of random
pulsed loads. Rasch. na prochn. no. 11:378-384 '65.
(MIRA 19:1)

ZAIROV, K.S., starshiy nauchnyy sotrudnik; MBVSKIY, M.V., kand.med.nauk;
GHICHENIN, P.I.

Organization of control measures for virus influenza in Uzbekistan
in 1957. Med.shur.Usb. no.8-9:90-94 Ag-S '58. (MIRA 13:6)
(UZBEKISTAN--INFLUENZA)

ZAIROV, K.S., starshiy nauchnyy sotrudnik; NEVSKIY, M.V., kand.med.nauk;
CHICHENIN, P.I.

Incidence of diphtheria in Uzbekistan. Med.zhur.Uzb. no.11:
21-24 N '58. (MIRA 13:6)

(UZBEKISTAN--DIPHTHERIA)

ZAITOV, K.S.; CHICHEBIN, P.I.; NEVSKIY, M.V.

Epidemiology of influenza in Uzbekistan during 1957. Zhur.
mikrobiol.epid. i immun. 30 no.5:25-30 My '59. (MIRA 12:9)

1. Iz Ministerstva zdavookhraneniya Uzbekskoy SSR.
(INFLUENZA, epidemiol.
in Russia (Rus))

ZAIROV, K.S.; BOYKO, V.M.; NEVSKIY, M.V.; CHICHENIN, P.I.

Some problems in the epidemiology of Botkin's disease in Uzbekistan.
Med. zhur. Uzb, no.2:19-23 F '60. (MIRA 15'2)
(UZBEKISTAN--HEPATITIS, INFECTIOUS)

MAKUMOV, S.S.; SANSIS'YANTS, S.L.; ~~HEREMET'YEV~~, N.N.; CHICHERIN, P.I.;
ZAPROMETOVA, L.V.; ZHURAVLEV, N.A.

Virusological characteristics of the outbreak of poliomyelitis in
Tashkent in 1959. Vop. virus. 7 no.2;239 Mr-Apr '62. (MIRA 15:5)

1. Tashkentskiy nauchno-issledovatel'skiy institut vaksain i syvorotok.
(TASHKENT--POLIOMYELITIS)

MEVZOS, L.M.; CHICHENIN, P.I.; VARSANOVA, Ye.Ye.; MELNIK, Ye.Yu.

Epidemiology of tetanus and its prevention in Uzbekistan. Trudy
TashNIIVS 6:277-280 '61. (MIRA 15:11)
(UZBEKISTAN--TETANUS)

CHICHENIN, P.I.; NEVSKIY, M.V.; MEDVEDEVA, T.S., red.; TSAY, A.A.,
tekhn. red.

[Preventive inoculations is a measure for the prophylaxis
of infectious diseases] Profilakticheskie privivki - mera
preduprezhdeniia infektsionnykh boleznei. Tashkent, Med-
giz, UzSSR, 1963. 27 p. (MIRA 17:1)

MUKHAMEDOV, S.M.; GHIGHENINA, Z.M.; ALEYNIKOVA, A.P.

Characteristics of Brucella strains isolated from humans and animals in Uzbekistan. Zhur. mikrobiol., epid. i immun. 42 no.11: 6-9 N 165. (MIRA 18:12)

1. Uzbekskiy institut krayevoy meditsiny AMN SSSR i Uzbekskaya respublikanskaya sanitarno-epidemiologicheskaya stantsiya. Submitted June 16, 1964.

L 63087-65 ZNT(1)/EWA(1)/EWA(1)-2 JK

ACCESSION NR: AF5015072

UR/0242/65/000/004/0008/0009

AUTHOR: Chichenina, Z. M.; Mukhamedov, S. M.; Aleynikova, A. F.; Davydov, N. M. 29
28
8

TITLE: Epidemiological role of cattle for slaughter in occupational brucellosis development at the Tashkent Meat Packing Plant

SOURCE: Meditsinskiy zhurnal Uzbekistana, no. 4, 1965, 8-9

TOPIC TAGS: brucellosis, epidemiology, food processing, industrial hygiene

ABSTRACT: The present study was prompted by the high incidence of brucellosis over many years among workers of the Tashkent Meat Packing Plant, including office workers, electromechanical workers, and others. From 1958 to 1962, 14.5% of all absenteeism due to illness at the plant was caused by brucellosis. Bacteriological investigations of blood and bone marrow of workers from 1958 to 1962 disclosed 50 brucella cultures, that is, in 35% of all workers. This group included fresh and chronic forms of brucellosis and all cultures were identified as Br. melitensis. In studying the clinical course of

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L 63037-65

ACCESSION NR: AP5015072

The disease, it was noted that in most cases the incubation period did not coincide with the time that the known brucellosis infected animals were slaughtered. This circumstance focused attention on the incoming certified "healthy" cattle. Special serological and bacteriological investigations of all "healthy" cattle were conducted, and some of the certified "healthy" animals were found to be infected with brucellosis. Such cases undoubtedly contribute to the high incidence of brucellosis because the necessary precautions during slaughtering and meat processing are not exercised. Veterinary personnel are strongly advised to inspect cattle more carefully before certification, and plant supervisory personnel are urged to enforce personal hygiene and industrial hygiene regulations more effectively. Orig. art. has: 1 table.

ASSOCIATION: Uzbekskaya respublikanskaya protivozhurnaya stantsiya
(Uzbek Republic Antiplague Station)

SUBMITTED: 15Apr64

ENCL: 00

SUB CODE: LS, G)

NR REF SOV: 000

OTHER: 000

1#
Card 2/2

97-10-3/14

AUTHOR: Chichenkov, Yu.V., Candidate of Mechanical Sciences.

TITLE: Testing of an Assembled Reinforced Concrete Segmental Frame With Prestressed Chord. (Ispytaniye sostavnoy zhelezobetonnoy arcochnoy fermy s predvaritel'no napryazhennoy zatyazhkoy).

PERIODICAL: Beton i Zhelezobeton, 1957, Nr.10. pp. 389 - 396. (USSR).

ABSTRACT: The above type of frame, span 27m, was designed by Eng. N. V. Nikitin, R. G. Shishkin and P. Ya. Al'shteyn of the Promstroyproekt to form a roof of a factory for electrolysis of aluminium. Testing was carried out in Kuznetskiyazhstroy Trust of the Minmetallurgkhimstroy. The frame was cast from concrete Mark 400, with a total weight of 10.55 tons. 878 kg of steel are required of which 270 kg was high tensile steel. The strutting members, both diagonal and vertical, were reinforced by 12 mm diameter bars. The chord member was a rectangular section 200 x 260 mm in size, reinforced with five batches of high tensile steel, each comprising 12 wires of 5 mm diameter. The anchoring plates were of steel St.3 which are hardened to Rockwell 40. The frame is designed to take a superimposed load of 450 kg/m². The loss of pretensioning due to free anchoring and the frame's own weight is approximately 1,000 kg/cm². The tensioning

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97-10-3/14

**Testing of an Assembled Reinforced Concrete Segmental Frame With
Prestressed Chord.**

of the chord member was carried out on the tensioning machine type AM-14. The modulus of elasticity of the steel was approximately 2.02×10^8 kg/cm². Rapid hardening Portland cement of 500 kg/cm² (activity) was used. Tensioning was carried out by two jacks of 30-ton capacity. After that the channels were pressure-grouted with the same type of cement (cement/water ratio of 0.55) as used for the surrounding concrete. Fig.1 shows the construction of the assembly frame and Fig.2 the method of testing. Tests were carried out using various combinations of loading until destruction of the frame. The first cracks appeared under the load of 97.9 tons. The loss of pre-tensioning amounted to 1,530 kg/cm² when the loading reached 130 tons. The cracks were distributed evenly along the chord member. When the load was increased to 205 tons no further cracks appeared. Fig.4 illustrates diagram of relationship between the width of the crack and the magnitude of the load. Fig.5 gives a graph of the relationship between deformation of the frame and prolongation of the chord. Fig.6 shows deformation of the reinforcement of the top member and the

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97-10-3/14

Testing of an assembled Reinforced Concrete Segmental Frame With Pre-stressed Chord.

various conditions of loading. Fig.7 shows deformation curves of the top member and the various types of loads. There are 7 Figures.

AVAILABLE: Library of Congress.

1. Roofs-Design

Card 3/3

CHICHENKOV, Yu.V., kand.tekhn.nauk

Testing prestressed reinforced concrete roofing panels to be used in
constructing industrial buildings, Bet. 1 zhel.-bet, no.12:458-461
D '58. (MIRA 11:12)

(Roofing, Concrete--Testing)

24(5)

SOV/56-36-6-19/66

AUTHOR: Chicherin, A. G.

TITLE: Reconstruction of the Potential Near Its Boundary From
the Scattering Amplitude (Vosstanovleniye potentsiala
vblizi yego granitsy po amplitude rasseyaniya)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 6, pp 1750 - 1757 (USSR)

ABSTRACT: The problem of the reconstruction of the potential has already
repeatedly been dealt with; in general, not the scattering
amplitude but the phase is used, but using the amplitude
appears to be more logical, because it is possible to do with-
out a phase analysis, and as it is possible to investigate
any and not only spherically-symmetric potentials. As the
first Born's approximation for scattering amplitudes in the
case of high potentials holds only at high energies, and as
the first Born's approximation is of no importance in the
case of high potential values, the author in this paper de-
velops an "asymptotic Born's approximation" for potentials,
which has the following properties: The accuracy of the appro-

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Reconstruction of the Potential Near Its Boundary
From the Scattering Amplitude

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ximation decreases with increasing potential, but this decrease does not develop in a uniform manner, but it is considerable near the center of the domain and slight near the boundaries of the potential. In the case of weak potentials, this approximation coincides with the first Born's approximation and represents the real potential in the entire space. The asymptotic approximation for an arbitrary potential reproduces the behavior of the potential in a layer near the boundary, the thickness of which depends on the amount of the potential. The order of magnitude of the relative error in determining the scattering potential at the point \vec{r} is

equal to $\int_{\vec{r}} U(\vec{r}') r' dr'$. Finally, the practical case is discussed

in which the scattering amplitude is given only within a finite energy interval, and the new inequality

$E_{\max} \geq (\pi^2/4) |\bar{U}| \epsilon^{-1} \sin^{-2}(\theta/2)$ is derived. \bar{U} denotes the mean value of the potential in the section extending from point \vec{r}

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to the boundary. A rough estimation of the magnitude of $\epsilon \approx 1$ is given by the inequality $E_{\max} > 2 \sqrt{U(r)}$. The author finally thanks Professor Ya. A. Smorodinskiy for his advice and discussions. There are 1 figure and 7 references, 2 of which are Soviet.

SUBMITTED: December 10, 1958

Card 3/3

CHERNOPLEKOV, N.A.; ZEMLYANOV, M.G.; CHICHERIN, A.G.

Study of the phonon spectrum of vanadium. Zhur.eksp.i teor.
fiz. 43 no.6:2080-2085 D '62. (MIRA 16:1)
(Neutrons—Spectra) (Neutrons—Scattering) (Vanadium)

LH501

S/181/63/005/001/018/064
B102/B186

24.2190

AUTHORS: Chernoplekov, N. A., Zemlyanov, M. G., Brovman, Ye. G.,
and Chicherin, A. G.

TITLE: Investigation of inelastic scattering of neutrons from a Ti-Zr
alloy

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 112-117

TEXT: The mechanism of inelastic scattering of cold neutrons from a disordered Ti-Zr alloy (62% Ti, 38% Zr) was investigated by the time-of-flight method. A general theory is given which interrelates the single-phonon incoherent scattering cross section with the frequency spectrum of of any crystal. The ratio of the components was so chosen according to theoretical considerations as to make the mean amplitude of coherent scattering equal to zero: $\langle a_n \rangle = \sum_j A_j a_j \equiv 0$; also the single-phonon

coherent scattering cross section $d^2\sigma/d\Omega d\epsilon$, where ϵ is the change in neutron energy, will be zero. For $a_{Ti} = -0.38 \cdot 10^{-12}$ cm and $a_{Zr} = 0.62 \cdot 10^{-12}$ cm, cm,

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Investigation of inelastic ...

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B102/B186

$\langle a \rangle = 0$, and $d^2\sigma/d\Omega d\epsilon = 0$. The transmissivity of the alloy for cold neutrons was 0.22. The spectrum of the neutrons scattered was measured between $5 \cdot 10^{-3}$ and 10^{-1} ev. After corrections for the detector's deviation from the $1/v$ -law and for neutron deceleration by the air the spectrum shows two peaks: one between 0.01 and 0.02 ev the other somewhat below 0.03 ev. The experimental data were evaluated by a method of Zemlyanov et al. (MAGATE Conference, Canada, Chalk-River, Sept., 10-14, 1962). This method gives the energy dependence of the function

$$\Psi(\omega) = g(\omega) \left[\frac{\sigma_{Zr}}{M_{Zr}} + A_{Ti} |C_{Ti}(\omega)|^2 \left(\frac{\sigma_{Ti}}{M_{Ti}} - \frac{\sigma_{Zr}}{M_{Zr}} \right) \right], \text{ from the trend of which some}$$

conclusions can be drawn as to the spectrum. The forbidden bands of the frequency spectrum of the alloy were not observed to vanish completely. In both the l-f and the h-f range the spectrum shows relatively deep dips which, however, are shallower than those of the ordered lattices of V and Ni. Contrary to what Dean (Proc. RBY. Soc. 254, 507, 1960) predicted, the optical part of the spectrum was not found to be split. This, however, could be due to insufficient resolution of the neutron spectrometer.
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Investigation of inelastic ...

S/181/63/005/001/018/064
B1Q2/B186

There are 2 figures.

ASSOCIATION: Institut atomnoy energii im. I. V. Kurchatova Moskva
(Institute of Atomic Energy imeni I. V. Kurchatov, Moscow)

SUBMITTED: July 21, 1962

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CHERNOPLEKOV, N. A.; ZEMLYANOV, M. G.; BROVMAN, Ye. G.; CHICHERIN, A. G.

Inelastic neutron scattering on a Ti-Zr alloy. *Fiz. tver. tela*
5 no.1:112-117 Ja '63. (MIRA 16:1)

1. Institut atomnoy energii imeni I. V. Kurchatova, Moskva.

(Neutrons—Scattering)
(Titanium—zirconium alloys)

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FCC(w)/EDS

EWT(1)/EWP(q)/EWT(m)/ S/056/63/044/003/013/053
AFFTC/ASD/IJP(C) PAD JD/HW

AUTHOR: Chernoplekov, N. A., Zemlyanov, M. G., Chicherin, A. G., and
Lyashchenko, B. G. 62

TITLE: The phonon spectrum of nickel 27

PERIODICAL: Zhurnal eksperimental'noy i tekhnicheskoy fiziki, v. 44, no. 3,
1965, 858-860

TEXT: The only existing investigation of the phonon spectrum using a fully incoherent slow neutron scattering as suggested by Placzek and Van Hove (Ref. 1: Phys. Rev., 93, 1207, 1954) was done by three of the authors, Chernoplekov, Zemlyanov, and Chicherin (Ref. 2: ZhETF, 43, 2080, 1962). The present paper reports results of inelastic scattering of slow neutrons on a sample of nickel isotope alloy with a zero mean coherent amplitude. Nickel as well as vanadium is a transition metal but has a face-centered cubic structure allowing the comparison of its phonon spectrum with that of the body-centered cubic lattice of vanadium (see Fig. 2). Measurements were carried out using a time of flight neutron spectrometer. The expansion coefficients of the normal mode oscillation frequency

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L 17601-63

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The phonon spectrum of nickel ...

distribution function $g(\omega)$ are listed in Table 1. The displacement of the Ni phonon spectrum maxima towards higher energies indicates the existence of a strong constant interatomic interaction transcending that in V. There are 2 figures and 1 table

Table 1. Expansion coefficients of the $g(\omega)$ function

α	ϵ_α	$f_{\alpha 0}$	$f_{\alpha 1}$	$f_{\alpha 2}$	$f_{\alpha 3}$	$f_{\alpha 4}$	$f_{\alpha 5}$	$f_{\alpha 6}$	$f_{\alpha 7}$
0	8,0	0,0169							
1	-4,4	-0,0215	0,0410						
2	-2,6	0,0244	-0,0387	0,0397					
3	-0,4	-0,0131	0,0400	-0,0364	0,0417				
4	-0,4	0,0150	-0,0293	0,0412	-0,0367	0,0466			
5	0,0	-0,0064	0,0309	-0,0184	0,0466	-0,0387	0,0525		
6	-0,5	0,0168	-0,0084	0,0364	-0,0167	0,0544	-0,0430	-0,0626	
7	-0,7	-0,0005	0,0410	-0,0031	0,0456	-0,0016	0,0682	0,0472	0,0751

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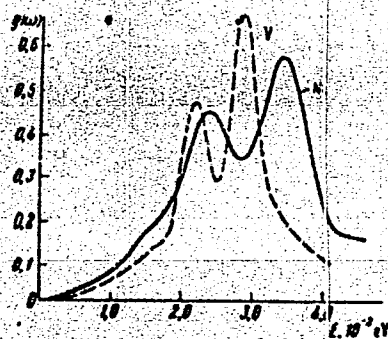
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The phonon spectrum of nickel...

Fig. 2



SUBMITTED: October 13, 1962

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CHICHERIN, M.I.

Seminar on magnetic amplifiers and contactless magnetic elements.
Avtom. i telem. 17 no.5:488 My '56. (MLBA 9:8)
(Magnetic amplifiers)

KONDRATSKIY, A.A.; CHICHERIN, N.I.; VASIL'YIWA, N.P.

~~CONFIDENTIAL~~
Interdepartmental conference on the construction technology
for magnetic amplifiers. Avtom. i telem. 17 no.10:943-945
0 '56. (MLRA 9:11)

(Magnetic amplifiers)

VASIL'YEV, Dmitriy Vasil'yevich; MITROFANOV, Boris Afanas'yevich; RABKIN, Grigoriy L'vovich; SANOKHVALOV, Georgiy Nikanorovich; SEMENKOVICH, Aleksandr Aleksandrovich; FATEYEV, Aleksandr Vasil'yevich; CHICHERIN, Nikolay Ivanovich; BEREZIN, S.Ya., otv.red.; SHAURAK, Ye.m., red.; FRUMKIN, P.S., tekhn.red.

[Design of servomechanisms] Raschet sledyashchego privoda.
Leningrad, Gos.soiuznoe izd-vo sudostroitel.promyshl., 1958. 370 p.
(Servomechanisms) (MIRA 12:3)

CHICHERIN, N.I.

9(4) PHASE I BOOK EXPLOITATION SOV/ATIS

Mechano-technicheskiye obshchestvo priborostroitel'noy promyshlennosti. Moskva: Mashinostroyeniye, 1959. 289 p. 1,100 copies printed.

M.I. Chistyakov, Doctor of Technical Sciences, Professor; M. of Publishing House; S.D. Khamatova; Tech Ed.; V.P. Meshin; Managing Ed.; A.S. Zaynovskaya, Engineer.

PURPOSE: The book is intended for scientific and engineering personnel of the instrument-making and radio industries engaged in the development of electronic and radio equipment.

CONTENTS: The authors of this collection of articles discuss the theory, principles of operation, calculation and application of electronic circuits using transistors. They also describe transistor application in measuring circuits, computers, radio and automatic and remote control circuits. The book contains translations of the Scientific and Engineering Conference papers by N.V. Moscow in December 1956. The contents include: diodes, coils, capacitors, photo-cells, thermocouples, collimators, nonlinear capacitors, crystal diodes and transistors. A considerable number of these papers have been included in the present book. No personalities are mentioned. References appear at the end of each article.

TITLE OF COMMENTS:

Dr. B. Kostyubovich, Engineer, Analysis and Calculation of Multivibrator Reluctance Oscillators Having a Single-stage Point-contact Transistor. The author describes the operation of a point-contact transistor multivibrator and derives basic equations for calculating

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oscillator performance. He also discusses the effect of load capacitance on the shape and derivation of generated pulses and describes voltage stabilizing circuits using diodes and pulse transformers. Fundamentals of designing the oscillator are also presented. There are 5 references of which 4 are Soviet and 1 English.

M.I. Chistyakov, Candidate of Technical Sciences. Some Practical Circuits of Servomechanism Systems Using Transistors and Magnetic Amplifiers

The author briefly describes the operation of single-loop and two-loop servomechanisms using magnetic amplifiers, crystal diodes and transistors. There are 5 references of which 3 are Soviet and 2 English.

16.9500 (1031, 1121, 1132)
9,2530

S/103/61/022/002/012/015
B019/B060

AUTHORS: Leskov, V. G., Chizhov, A. I., Chicherin, N. I. (Leningrad)

TITLE: Some diagrams of half-wave (high speed) magnetic amplifiers for servodrives

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 2, 1961, 250-258

TEXT: A study has been made of three diagrams of magnetic amplifiers displaying certain improvements compared with other known diagrams. The first part of the present paper is devoted to a discussion of a double-branch half-wave magnetic amplifier with a strong capacitive positive a-c feedback. The main elements of the circuit as well as its mode of operation are described with the aid of Fig. 1. If a magnetic amplifier of this kind has a phase-sensitive rectifier circuit as shown by Fig. 3 and as suggested by V. G. Baranovskiy, an output voltage will then be obtained owing to the properties of the magnetic amplifier, one component of which will be proportional to the input signal, while the second component will be proportional to the variation rate of the d-c component of the input voltage of the phase-sensitive rectifier. These properties

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Some diagrams of half-wave ...

indicate a good usability for servodrives. The second part deals with two double-branch half-wave magnetic amplifiers with a high Q factor. Magnetic amplifier controls are made by way of a change of the magnetic state of the cores through a change of the d-c component of the magnetic field. In magnetic amplifiers with a positive feedback this task can be solved either by changing magnitude and direction of the current in the control coils or by changing the positive feedback through a change of the rectification factor. The second possibility allows, as shown by tests, working out high-quality magnetic amplifiers. Fig. 4 shows a high-speed, push-pull magnetic power amplifier with a-c output. The respective control is done by changing the internal feedback with the aid of transistors controlling the feedback factor. This circuit has a large power amplification factor (larger than $1.5 \cdot 10^5$), low inertia, ($K_p/\tau \approx 7.5 \cdot 10^4$, K_p being the power amplification factor, τ the time constant; moreover it is easy to assemble and has a large linear part of the characteristic. A further development of this diagram is shown in Fig. 5. As may be seen, this diagram dispenses with rectifiers in the

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