KOLTUNOV, P.S., kand. tekhn. nauk; NEKRASOV, Yu.I., inzh.

Comparative testing of torches for propane-butane welding. Svar. proizv. no.11:27-29 N'63. MIRA 17:1

1. Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy obrabotki metallov.

KAZAKOV, F.S., kandidat tekhnicheskikh nauk; NEKRASOV, Yu.I., inzh.

Welding brass by gas with flux. Svarochnoe [illegible] 1, No. 2, [illegible]

1. Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy obrabotki metallov.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

APTYUKHOVSKAYA, S.A.; TESMENITSKIY, I.I.; ASINOVSKAYA, V.A.; BOYKO, M.I.; KOLTUNOV, P.S.; NEKRASOV, Yu.L.; POKOVIN, A.I.; NEKRAYEV, V.I.; NINBURG, A.K.; SHASHKOV, A.N.; [illegible] N, A.M.; ANTONOV, I.A., kand. tekhn. nauk, red.

[Using acetylene substitute gases for flame metalworking.] Primenenie gazov-zamenitelei atsetilena pri gazoplamennoi obrabotke metallov. Moskva, Mashinostroenie, 1964. 150p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut avtogennoi obrabotke metallov. Spravochnye materialy po gazoplamennoi obrabotke metallov, no.23). (MIRA 17:9)

PHASE I BOOK EXPLOITATION SOV/5556

Moscow. Institut stali.

Novoye v teorii i praktike proizvodstva martenovskoy stali (New [Developments] in the Theory and Practice of Open-Hearth Steelmaking) Moscow, Metallurgizdat, 1961. 459 p. (Series: Trudy Mezhvuzovskogo nauchnogo soveshchaniya) 2,150 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy institut stali imeni I. V. Stalina.

Eds.: M. A. Glinkov, Professor, Doctor of Technical Sciences, V. V. Kondakov, Professor, Doctor of Technical Sciences, V. A. Kudrin, Docent, Candidate of Technical Sciences, G. N. Oyks, Professor, Doctor of Technical Sciences, and V. I. Yavoyskiy, Professor, Doctor of Technical Sciences; Ed.: Ye. A. Borko; Ed. of Publishing House: N. D. Gromov; Tech. Ed.: A. I. Karasev.

PURPOSE: This collection of articles is intended for members of scientific institutions, faculty members of schools of higher education, engineers concerned with metallurgical processes and physical chemistry, and students specializing in these fields.

Card 1/14

New [Developments] in the Theory (Cont.) SOV/5556

COVERAGE: The collection contains papers reviewing the development of open-hearth steelmaking theory and practice. The papers, written by staff members of schools of higher education, scientific research institutes, and main laboratories of metallurgical plants, were presented and discussed at the Scientific Conference of Schools of Higher Education. The following topics are considered: the kinetics and mechanism of carbon oxidation; the process of slag formation in open-hearth furnaces using in the charge either ore-lime briquets or composite flux (the product of calcining the mixture of lime with bauxite); the behavior of hydrogen in the open-hearth bath, metal desulfurization processes; the control of the open-hearth thermal melting regime and its automation; heat-engineering problems in large-capacity furnaces; aerodynamic properties of fuel gases and their flow in the furnace combustion chamber; and the improvement of high-alloy steel quality through the utilization of vacuum and natural gases. The following persons took part in the discussion of the papers at the Conference: S.I. Filippov, V.A. Kudrin, M.A. Glinkov, B.P. Nam, V.I. Yavoyskiy, G.N. Oyks and Ye. V. Chelishchev (Moscow Steel Institute); Ye. A. Kazachkov and A. S. Kharitonov (Zhdanov Metallurgical Institute); N.S. Mikhaylets (Institute of Chemical Metallurgy of the Siberian Branch of the Academy of Sciences USSR); A.I. Stroganov and D. Ya. Povolotskiy (Chelyabinsk Polytechnic Institute); P.V. Umrikhin (Ural Polytechnic Institute); I.I. Fomin (the Moscow "Serp i molot" Metallurgical Plant); V.A. Fuklev (Central Asian Polytechnic Institute)

Card 2/14

and M.I. Beylinov (Night School of the Dneprodzerzhinsk Metallurgical Institute). References follow some of the articles. There are 268 references, mostly Soviet.

TABLE OF CONTENTS:

AUTHORS: [illegible]

TITLE: Examination of [illegible] measuring the diffuse X-ray [illegible]

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fiz. [illegible], no. 3, 1[illegible], 3[illegible]-[illegible]

TEXT: The degree of order in the [illegible] 17[illegible]°C was studied. A [illegible] monochromatized by a plane [illegible] crystal, [illegible] Radiation was recorded with an [illegible] range from 5 to 20° was measured; scattering [illegible] the use of a vacuum chamber (Ref. 1: [illegible] Umanskiy, Kristallografiya, 2, [illegible] effect, and Bragg scattering were mathematically [illegible] samples with etched surfaces were used for [illegible] tion was considerable. The intensity distribution was determined experimentally. The curve for 17[illegible]°C was calculated for a

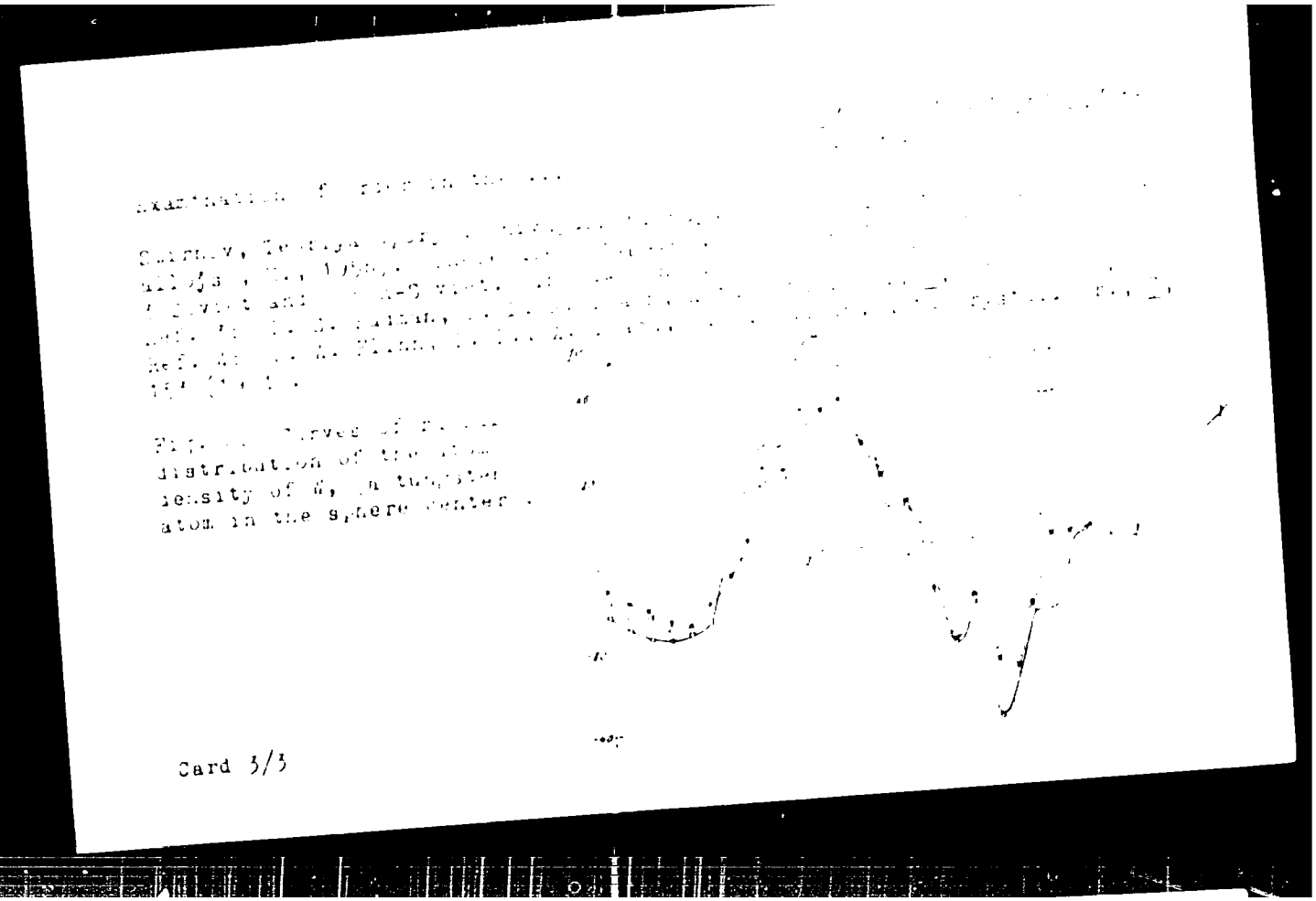
Card 1/3

Examination of order in the ...

The short-range order [illegible] numerically. The positive sign [illegible] type to prevail in the melt [illegible] tends to segregate. Furthermore, the [illegible] density of tungsten was determined [illegible]

In general, the results of [illegible] The additional minimum between [illegible] upper limit of integration, S_c, is 2.6 [illegible] The degree of order increases [illegible] is very low at all temperatures [illegible] low: it is 0.079 ev for [illegible]

Card 2/3



Card 3/3

82925
S/169/60/000/005/005/021
A005/A001

3.9300

Translation from Referativnyy zhurnal, Geofizika, 1960, No. 5, pp. 34-37,
5807

AUTHOR: Nekrasov, Yu. Ye.

TITLE: On the Exploration of Faults by the Seismic Method of Refracted Waves

PERIODICAL: Zap. Leningr. gorn. in-ta, 1959, Vo. 34, N. 2, pp. 108-114

TEXT: The amplitude of the faults is determined from the relative difference in time (Δt) of the first arrivals of the refracted wave above the lifted and the sunken block. The Δt value varies with the shot point distance from the fault line in consequence of the ray penetration effect, when the hodograph is obtained for a longitudinal profile perpendicular to the fault line at the shot point located above the lifted block. When calculating the fault amplitudes from the approximate formula used in practice and neglecting the phenomenon mentioned, considerable errors may occur, especially for shot points located near the fault line. The relative time-dependent shift of the hodograph branches for a nonlongitudinal profile oriented transverse to the fault strike

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On the Exploration of Faults by the Seismic Method of Refracted Waves

is larger than for longitudinal profiling in the same direction. Therefore, the determination of the fault amplitude from nonlongitudinal hodographs is more precise. A simple procedure is presented for calculating the fault amplitude from nonlongitudinal hodographs obtained from shot points located on both sides of the fault line.

G. K. Konstantinov

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

NEKRASOV, Yu.Ye.

Construction of radiation patterns under the arbitrary law of the change in seismic velocity with depth. Uch.zap.LGU no.303:292-300 '62. (MIRA 15:11)

(Seismic prospecting)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

NEKRASOV, Z.I. [illegible]); MAYMIN, [illegible]
(Dnepropetrovsk)

Investigating the [illegible] changes in the magnetic properties [illegible] MIRA [illegible]

Burning through of tuyères and its prevention [illegible] 1932

[illegible] An investigation was carried out of tuyère burning in plants where the [illegible] of pig iron produced per tuyère were [illegible] and [illegible] It was found that liquid cast iron is the most serious cause of tuyère failure. Scale formation inside the cooling tubes due to hard water is another serious difficulty as it reduces heat conduction. Merchant Cu tuyères are more desirable than those made of bronze. A new design of tuyère is suggested. Numerous drawings and photomicrographs, chemical analyses of the slag and tables of furnace operation data are given. [illegible]

9

Direct reduction of Kiruvaraq fine ore A. I. Nekrasov and K. N. Shpel'to *Chemes* 1936, No. 9, 16-28. Two kinds of ore were used in preparing iron sponge by the direct reduction method. Blue ore, analyzing 1.8 Si, 1.1 FeO, 94.07 Fe_2O_3, trace of S and 0.015% P, red ore, analyzing 18.98 Si, 0.96 FeO, 78.31 Fe_2O_3, trace of S and 0.053% P. The fine ore was mixed with ground anthracite and heated in crucible, muffle and elec. tube furnaces. A study was made of the effect of temp., of the rate of a gaseous stream through the furnace, of the ratio of ore to coal, of the thickness of a layer of powd. mixt. and of size of particles on the degree of the reducibility of the ore. Optimum conditions were: temp. of reaction 900-1000°, low rate of current of gases (neutral or reducing) through the furnace and a mixt. of 1 part of ore with 0.27-0.4 part of coal, depending on the quality of the ore. The best thickness of the charge was found to be 45-50 mm. and the sizes of the particles were 6-8 mesh for the ore and 12-15 mesh for the coal. The method of cooling the hot sponge was to prevent reoxidation was studied.

S. L. Madorsky

CR

9

Direct reduction of manganese ore [illegible]

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

CA

9

Gaseous reactions in the blast furnace

NEKRASOV, Z.I., dotsent; TOMKOMOG, G.V., inzhener; YAKOVLEV, A.P.; TARANOV, F.S.

Improving the construction of blast furnaces. Stal' 7 no.2:106-109 '47. (MLRA 9:1)

1.Dneprepetrovskiy metallurgicheskiy institut.
(Blast furnaces)

Doc Tech Sci

NEKRASOV, Z. I.

Dissertation: "Work of Gases in the Peripheral Zone of Blast Furnace and Methods for their Efficient Utilization." 21/12/50

Inst of Metallurgy imeni A. A. Baykov, Acad Sci USSR.

SO Vecherynaya Moskva
Sum 71

BRAUN, M.P.; NEKRASOV, Z.I., otvetstvennyy redaktor; TITKOV, B.S., redaktor; SIVACHENKO, Ye.K., tekhredaktor

[Effect of small additions of alloys on steel fractures] Vliianie malykh dobavok legiruiushchikh elementov na izlom stali. Kiev, Izd-vo Akad. nauk USSR, 1954. 63 p. (MLRA 7:11)

1. Chlen-korrespondent Akademii nauk (for Nekrasov)
(Steel--Metallurgy)

BRAUN, Mikhail Petrovich; NEKRASOV, Z.I., redaktor; TITKOV, B.S., redaktor; KRYLOVSKAYA, N.S., tekhnicheskiy redaktor

[Nature of fractures in overheated steel] Priroda isloma peregretoi stali. Kiev, Izd-vo Akademii nauk USSR, 1954. 286 p. (MLRA 9:3)

1. Chlen-korrespondent AN USSR (for Nekrasov)
(Steel--Testing)

AUTHOR: Nekrasov, [illegible], Correspondent member of the Ac.Sc. Ukraine SSR, Krasavtsev, N.I. and Shchirinov, V.D., Candidates of Technical Sciences. 133-5-23/27

TITLE: Investigations of the Iron and Steel Institute of the Ac.Sc. of the Ukrainian SSR (I. Zelenskiy Institute Chernoy Metallurgii AN USSR)

PERIODICAL: "Stal'" (Steel), 1957, No. 5, pp. [illegible]

ABSTRACT: The following problems were investigated:
1) Operation of blast furnaces on elevated initial top pressures. Investigations were carried out on the Dzerzhynskiy Works on furnaces of 1 [illegible] m³ working volume. Top pressure was increased in stages from 0.[illegible] - 0.[illegible] atm. to 0.8, 0.9, and 1.0 atm. The output of furnaces was somewhat increased. The largest pressure drop per metre [illegible] was observed in the stack and not at lower furnace levels. Observation on the gas distribution in the furnace [illegible] that with increasing top pressure the [illegible] flow is increased. In 1955, one of the furnaces was worked at top pressures of up to 1.5 atm. [illegible] conditions was not stable [illegible] lowered for casting [illegible] culties encountered during [illegible] atm. are not insurmountable.

Card 1/4

Investigations of the Iron and Steel Institute [illegible] of the Ukrainian SSR. (Cont.) 133-5-23/2

2) The production of self-fluxing sinter [illegible] concentrates. The production of sinter with CaO/SiO2 [illegible] up to 1.4 was investigated. It was established that the increasing basicity of the sinter from 0.2[illegible] to 1.4 is not accompanied by an improvement in the reducibility of sinter.

3) Experimental steel making from pig produced from [illegible] ores in a converter with an application of oxygen. [illegible] long term research project aiming at establishing a rational method of steel making from high phosphorous pig. In a series of laboratory experiments under various conditions of [illegible] supply the possibility of extensive dephosphorisation [illegible] carbon content in the metal and the [illegible] content of iron oxides in slag was established.

4) An investigation of merchant and wire drawing mills. The investigation was carried out in order to establish possible methods of increasing the output of mills. It was shown that rolling with clamping allows increasing the angle of grip in reducing stands by 3-5° and more and thus increases the degree of reduction by 15-20%. The latter will permit decreasing the number of passes. A new design of finishing and pre-finishing stands for wire drawing mills of the Petrovsk and Dzerzhynskiy

Card 2/4

Investigations of the Iron and Steel Institute of the Ac.Sc. Ukraine SSR. (Cont.) 133-5-23/27

works was developed. Some problems in mechanisation and automation of merchant and wire mills were also investigated.
5) The development and an investigation of the technology of rolling economic profiles. The possibility of rolling discs for motor car wheels was established.
6) An increase in the output of a blooming mill by an improved utilisation of the mill driving motors. As a result of investigations carried out during the last few years some recommendations were given to the Dzerzhinsk and Petrovsk works regarding changes in blooming mill practice which resulted in a 10-15% increase in the output.
7) Thermal treatment of wheels for railway cars. The technology of thermal treatment from induction heating was developed. Gipromez designed equipment for treating 40 000 wheels per year for the K. Liebknecht works.
8) The mechanism of the influence of gaseous and liquid media on the graphitisation of cast iron. The problem was investigated and it was established that the mechanism of acceleration of graphitisation during surface oxidation is related to the formation of vacancies in the surface zone.
9) An investigation of the influence of silicon on resistance

Card 3/4

Investigations of the Iron and Steel Institute of the AS of the Ukrainian SSR. (Cont.) 133-5-23/27

and entectoidal transformation of cast iron. Theoretical investigations of the system Fe-C-Si indicated that during the crystallisation of cast iron and during entectoidal transformation inter-crystalline segregation of silicon is possible. The results obtained may be utilised when developing the technology of thermal treatment of grey and magnesium inoculated cast irons.

10) The use of low carbon cast iron for casting balls for ball mills. As a result of this work, balls were been made by casting in chill moulds. Their hardness 450-500 H_B at a carbon content of 2.5 - 2.8%. The metal for casting was produced in an oxygen blown converter.

11) The use of oxygen for melting cast iron reverberatory furnaces. Melting of high silicon cast iron scrap was considerably speeded up by the use of oxygen. The use of oxygen for melting cast iron for rolls increased the output of the furnace by about 20% and decreased the consumption of fuel by 20-25% and the cost of production by about 15 Roubles/Ton. The above practice is being introduced on the Dneptropetrovsk works producing cast iron rolls.

AVAILABLE:

Card 4/4

Nekrasov, ... Corresponding Member
N.A. and Trefil, ...

Investigation of the iron ore sintering process by the charge in the differential magnetic susceptibility in the lean iron region. Issledovaniye rudnogo spekaniya shikhty v differentsialnoy magnitnoy vospriimchivosti v oblasti bednykh rud

Source: Dopovidi Akademii nauk Ukrainskoi RSR, ... pp ...

Abstract: The authors begin with a brief review of the literature on the sintering process. The observation of the course of the sintering process throughout the entire thickness of the layer of the charge in the differential susceptibility of the charge and sinter directly in the sintering unit. By the curves obtained, it is possible to establish the existence in the sintering process of several zones differing in their magnetic state. Conventionally, the following zones can be singled out: 1) the zone of the heightened magnetic susceptibility where the temperature rises from 100° to the temperatures approaching the Curie point of magnetite ...

Card 1/...

Investigation of the Iron Ore Sintering Process by the Change in the Differential Magnetic Gas Attitude in the Weak Field Region.

magnetic [illegible] temperature rises above the Curie point, [illegible] the zone of the [illegible] where main sintering processes occur, [illegible] the [illegible] cooling [illegible] with [illegible] magnetic properties; [illegible] the zone of sintering [illegible] temperature below [illegible] was found [illegible] type of the [illegible] depends [illegible] the [illegible] ditions of the [illegible] sintering process and the [illegible] geneity of the [illegible] in height in respect [illegible] magnetic properties. [illegible] and also for [illegible] beer [illegible] in sinter [illegible] there is a [illegible] diagram. [illegible] graph and [illegible] which [illegible] [illegible] Institute [illegible] Metallurgy of [illegible]

[illegible] Vanes [illegible] basic [illegible] rates [illegible] and [illegible] appearing in this [illegible] have been used [illegible]

[illegible] Abstract [illegible]

[illegible]

SV/130-59-2-3/17

AUTHORS: Nekrasov, Z.I. and Obodan, Ya.M.

TITLE: Automatic Measurement of the Composition and Temperature of Peripheral Gas and Control of Blast-Furnace Operation (Avtomaticheskiy kontrol' sostava i temperatury periferiynogo gaza i regulirovaniye khoda domennoy pechi)

PERIODICAL: Metallurg, 1959, Nr 2, pp 7-10 (USSR)

ABSTRACT: At several Soviet works, e.g. im.Dzerzhinskogo (Dzerzhinskiy) and im.Petrovskogo (Petrovskiy) a continuous peripheral-gas sampling and temperature-measuring device has long been used. It was proposed by Z.I.Nekrasov, Corresponding Member of the AN UkrSSR (Academy of Science UkrSSR) and developed by its Institut Chernoy metallurgii (Ferrous Metallurgical Institute). It consists (Fig 1) essentially of a water-cooled probe which quickly cools the gas sample, thus preventing further composition changes. The inlet of the probe is arranged flush with the inwall and several (4 to 8) are generally arranged at equal intervals round the furnace under the armouring. Separate

Card 1/3

SV/1[illegible]

Automatic Measurement of the Composition and Temperature of Peripheral Gas and Control of Blast-Furnace Operation

thermocouple probes (Fig 1) are arranged 0.3 to 0.4 m below the gas probes; the couples are protected by heat resisting steel shields. The gas flow is cleaned in a two stage filter (coke supported on ceramic tubes, followed by glass or cotton wool and then in a filter consisting of several foamed slag discs in suitable glands and passes to automatic analysers. A rapid gas flow is maintained in the main gas-sampling system, that above the analyser-requirements being blown off through a water-seal. The authors discuss experience at the works using the system. This has shown that the CO_2 content at the walls should be kept as high as possible. With even working of the furnace the CO_2 content at the various sampling points should be about equal and constant. The authors discuss measures for securing even working and stress that they must be applied promptly to avoid possible formation of scaffolds and preferably in the order listed. As shown in Fig 3, scaffolds are indicated by characteristic CO_2 distribution patterns. The authors list measures which

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SOV/130-5,-6-3/17

Automatic Measurement of the Composition and Temperature of Peripheral Gas and Control of Blast-Furnace Operation

prevent the further growth of scaffolds or even remove them: if these fail they recommend the furnace being emptied as far as possible and the shifting of the scaffold with explosives. Finally the authors possible causes for an overall decrease in the peripheral CO_2 content are given: failure to adapt the charging cycle for a charged burden-size grading to systematic failure to keep to the proper stockline level or to overloading the centre with ore. There are 3 figures.

ASSOCIATION: Institut Chernoy Metallurgii AN USSR (Institute of Ferrous Metallurgy. AS UkrSSR)

Card 3/3

SOV/180-59-2-15/34

AUTHORS: Gladkov, N.A., Nekrasov, Z.I. and Chekin, V.V. (Dnepropetrovsk)

TITLE: Magnetic Properties of Sinter in Relation to its Ferrous-Oxide Content (Magnitnyye svoystva aglomerata v zavisimosti ot soderzhaniya v nem zakisi zheleza)

PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 2, pp 86-89 (USSR)

ABSTRACT: Many investigations (eg Refs 5 and 6) have established the close relation between the FeO-content of a sinter and its properties. The present authors report their experiments to find whether a relation exists between the FeO-content and the magnetic properties. Sinters with a constant CaO/SiO_2 ratio of unity were made from roasted and magnetically-separated ores in a 200-mm diameter pot at a constant vacuum of 1200 mm water column. The moisture and carbon contents of the bed and its depth were changed to produce sinters with different properties. The magnetic properties of 50-g samples were determined with a type 2738/S-3 "ferrotester", this being followed by chemical analysis. The magnetization, proportional to the content by volume of the ferromagnetic component, was found to be the most useful. A field strength of

Card 1/3

307/180-59-2-15/24

Magnetic Properties of Sinter in Relation to its Ferrous-Oxide Content

500 Oersted was used. A maximum of magnetization was found at 19.0% FeO (Fig 1) and also at 42.5% Fe_2O_3 (Fig 2), corresponding to the maximal magnetite content. Table 1 shows the contents of the ferruginous components of the sinter and the calculated Fe_3O_4-contents. Table 2 shows the relative change in the calculated magnetite content; the change-values agree with those calculated. This indicates that with under 19% FeO all of it is combined in the form of magnetite; with over 19% FeO it is the ferric oxide that is all combined. The authors compare their results with those of Rose and Read (Ref 2), suggesting that their own are of more general interest. They show that magnetic methods can give an indication of sintering conditions and that for FeO-contents under 19% they can be used for rapid FeO determination with an accuracy equal to

Card 2/3

SOV/180-59-2-15/34

Magnetic Properties of Sinter in Relation to its Ferrous-Oxide Content

that of chemical methods.
There are 2 figures, 2 tables and 6 references, 5 of which are Soviet and 1 English.

ASSOCIATION: Institut chernoy metallurgii AN Ukr.SSR (Institute of Ferrous Metallurgy of the AS Ukr SSR)

SUBMITTED: October 27, 1958

Card 3/3

NEKRASOV, Z.I.; GRODAN, Ya.M.

Automatic gas composition and temperature control according to furnace diameter. Metallurg 4 no.3:5-7 Mr '59. (MIRA 12:4)

1. Institut chernoy metallurgii AN USSR.
(Blast furnaces) (Automatic control)

KRASAVTSEV, Nikolay Ivanovich; NEKRASOV, Z.I., otv.red.; REMENNIK, T.K., red.izd-va; BUNIY, R.A., tekhn.red.

[Increasing the efficiency of blast-furnace smelting] O povyshenii effektivnosti domennoi plavki. Kiev, Izd-vo Akad.nauk USSR, 1960. 97 p. (MIRA 13:9)

1. Chlen-korrespondent AN USSR (for Nekrasov).
(Blast furnaces)

NEKRASOV, Z.I.; CHEKIN, V.V.

Intensity of magnetization in the region of maximum magnetic susceptibility of an agglomerate and its remanance. Dop.AN UHSR no.1:51-53 '60. (MIRA 13:6)

1. Institut chernoy metallurgii AN USSR. 2. Chlen-korrespondent AN USSR (for Nekrasov).
(Iron ore--Magnetic properties)

NEKRASOV, Z.I.; UL'YANOV, A.G. [Ul'ianov, A.H.]

Change in the arsenic content during the agglomeration of Kerch ores. Dop.AN URSR no.3:342-344 '60. (MIRA 13:7)

1. Institut chernoy metallurgii AN USSR. 2. Chlen-korrespondent AN USSR (for Nekrasov).
(Arsenic) (Iron ores)

NEKRASOV, Z.I.; CHEKIN, V.V.; ROMANOV, V.P.

Some ferromagnetic properties of an agglomerate. Dop.AN URSR no.4: 464-467 '60. (MIRA 13:7)

1. Institut chernoy metallurgii AN USSR. 2. Chlen-korrespondent AN USSR (for Nekrasov).
(Ferromagnetism)

GLADKOV, N.A. (Dnepropetrovsk), MEKRASOV, Z.I. (Dnepropetrovsk)

Reducibility of Kerch ore concentrates by natural gas. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.6:14-18 N-D '60. (MIRA 13:12)

(Kerch—Iron ores) (Iron—Metallurgy)

NEKRASOV, Z.I., doktor tekhn.nauk

Considerations on the behavior of powder-like materials in blast furnaces. Trudy Inst. chern.met. AN URSR 12:3-36 '60. (MIRA 14:5)

1. Chlen-korrespondent AN USSR.
(Blast furnaces)
(Granular materials)

NEKRASOV, Z.I., doktor tekhn.nauk; OBODAN, Ya. M., inzh.

Blast furnace process with the use of automatic control data on the composition of peripheral gases. Trudy Inst. chern. met. AN URSR 12:37-67 '60. (MIRA 14:5)

1. Chlen-korrespondent AN USSR (for Nekrasov).
(Blast furnaces)
(Gases—Analysis)

NEKRASOV, Z.I., doktor tekhn.nauk; CHEKIN, V.V., kand.tekhn.nauk; GLADKOV, N.A.

Relation of the composition and properties of sinters to fuel consumption. Trudy Inst. chern.met. AN URSR 12:89-100 '60. (MIRA 14:5)

1. Chlen-korrespondent AN USSR (for Nekrasov).
(Sintering)

NEKRASOV, Z.I., doktor tekhn.nauk; UL'YANOV, A.G., inzh.

Investigating the process of preparing fluxed sinter of varying basicity from brown Kerch ore. Trudy Inst. chern.met. AN URSR 12:114-128 '60. (MIRA 14:5)

1. Chlen-korrespondent AN USSR (for Nekrasov).
(Kerch Peninsula—Iron ores)
(Sintering)

NEKRASOV, [illegible], doktor tekhn.nauk; UL'YANOV, A.G., inzh.

Behavior of arsenic in the process of preparing fluxed and nonfluxed sinters. Trudy Inst. chern. met. AN URSR 12:144-157 '60. (MIRA 14:5)

1. Chlen-korrespondent AN USSR (for Nekrasov)
(Sintering) (Arsenic)

NEKRASOV, Z.I., doktor tekhn.nauk; GLADKOV, N.A., inzh.; YEREMENKO, D.P., inzh.

Equipment for the determination of the softening temperature of blast furnace materials. Trudy Inst. chern. met. AN URSR 12:163-168 '60. (MIRA 14:5)

(Blast furnaces--Equipment and supplies)
(Thermocouples)

MAKASOV, Z.I.; GLADKO[illegible], V.A., inzh.; C[illegible], V.V., inzh.

Magnetic properties of iron and alloy materials with various carbon content. [illegible] 20 no.6:[illegible]-[illegible] Je '60. (MIRA [illegible])

1. Institut [illegible] metallu[illegible] AN USSR. 2. Chelyabinskiy [illegible] AN USSR ([illegible] ov).
(Iron [illegible]-[illegible] etic [illegible]) (Sintering)

KOZHEVNIKOV, Sergey Nikolayevich; NEKRASOV, Z.I., akademik, otv. red.; MEL'NIK, A.F., red.izd-va; MATVEYCHUK, A.A., tekhn. red.

[Dynamics of machinery with flexible members] Dinamika mashin s uprugimi zven'iami. Kiev, Izd-vo Akad.nauk USSR, 1961. 159 p. (MIRA 15:1)

1. Akademiya nauk USSSR (for Nekrasov)
(Machinery, Kinematics of)

NEKRASOV, Z.I. (Dnepropetrovsk); CHEKIN, V.V. (Dnepropetrovsk)

Effect of a variable magnetic field on a fluidized bed of ferromagnetic particles. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.6:25-29 N-D '61. (MIRA 14:12)

1. Institut chernoy metallurgii AN USSR.
(Fluidization) (Magnetic fields)

NEKRASOV, Z.I., akademik; CHEKIN, V.V.

Determining the effective viscosity of a boiling layer by the falling ball method. Dop. AN URSR no.11:1482-1484 '61. (MIRA 16:7)

1. Institut chernoy metallurgii AN UkrSSR. 2. AN UkrSSR (for Nekrasov).

(Iron founding) (Viscosity)

reports to be submitted for the International Iron and Steel Meeting
Luxembourg, 1-4 Oct 1962

NEKRASOV, Z.I., akademik; CHEKIN, V.V.; ROMANOV, V.P.; DUDKA, A.P. [Dudka, O.P.]

Effect of a rotating magnetic field n a boiling layer containing ferromagnetic particles. Dop. AN URSR no.1:42-44 '62. (MIRA 15:2)

1. Institut gornoy metallurgii AN URSR. 2. AN USSR (for Nekrasov).

(Founding)
(Ferromagnetism)

NEKRASOV, Z.I. (Dnepropetrovsk); CHEKIN, V.V. (Dnepropetrovsk)

Effective viscosity of a fluidized bed of polydispersed ferromagnetic particles in a variable magnetic field. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.1:56-59 Ja-F '62. (MIRA 15:2)

1. Institut chernoy metallurgii AN USSR.
(Fluidization)
(Viscosity)
(Ferromagnetism)

NEKRASOV, Z.I., akademik; POKRYSHKIN, V.L., kand.tekhn.nauk; ZAG[illegible]A, A.V., inzh.; KAMENEV, R.D., inzh.

Operation of blast furnaces having a capacity of 1719 m^3 with injection of natural gas. Stal' 22 no.3:199-205 Mr '62. (MIRA 15:3)

1. AN USSR (for Nekrasov).

(Blast furnaces)

NEKRASOV, [illegible]

[illegible]

[illegible] AN UkrSSR.
(Blast [illegible]—Analysis

ARUTYUNOV, N.B., inzh., red.; VOSKOBOYNIKOV, V.G., doktor tekhn. nauk, red.; GOTLIB, A.D., prof., doktor tekhn.nauk, red.; GUSOVSKIY, A.A., inzh., red.; KRASAVTSEV, N.I., kand. tekhn. nauk, red.; NEKRASOV, Z.I., akademik, red.; OSTROUKHOV, M.Ya., kand. tekhn. nauk, red.; POKHVISNEV, A.N., prof., doktor tekhn.nauk, red.; RAMM, A.N., prof., doktor tekhn. nauk, red.; TSYLEV, L.M., prof., doktor tekhn. nauk, red.; POZDNYAKOV, G.L., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Blast furnace process according to most recent developments; on the 100th. anniversary of Academician M.A.Pavlov's birth] Domennyi protsess po noveishim issledovaniiam; k 100-letiiu so dnia rozhdeniia akad. M.A.Pavlova. Moskva, Metallurgizdat, 1963. 325 p. (MIRA 16:8)

1. AN Ukr.SSR (for Nekrasov).
(Blast furnaces)
(Pavlov, Mikhail Aleksandrovich, 1863-1958)

NEKRASOV, Z., akademik, laureat Leninskoy premii

To have more metal. Nauka i zhyttia 12 no.2:12-13 F '63.
(MIRA 16:4)

1. AN UkrSSR.

(Bessemer process) (Gas, Natural)

NEKRASOV, Z.I., POKRYSHEVN, V.I., NETREBE[illegible]; RABINOVICH, G.B.; KAMENEV, R.D.

Blast furnace performance with a high-grade fluxed sinter. Stal' 23 no.5:389-393 My '63. (MIRA 16:5)

1. Institut chernoy metallurgii Gosudarstvennogo komiteta po chernoy i tsvetnoy metallurgii pri Gosplane SSSR i Krivorozhskiy metallurgicheskiy zavod

(Blast furnaces--Equipment and supplies)

NEKRASOV, Z.I.; VOLOVIK, G.A.; POKRYSHKIN, V.L.

Sulfur distribution in blast furnaces operating with a rich charge mixture. Izv. vys. uchsb. zav.; chern. met. 7 no.2: 26-33 '64. (MIRA 17:3)

1. Institut chernoy metallurgii Gosudarstvennogo komiteta po chernoy i tsvetnoy metallurgii i Dnepropetrovskiy metallurgicheskiy institut.

ACC NR: AP7007075 SOURCE CODE: UR/0021/66/000/008/1022/1024

AUTHOR: Gladkov, M. A.; Nekrasov, Z. I. (Academician UkrSSR); Rostovtsev, S. T.; Shmel'ov, Yu. S.--Shmelev, Yu. S.
ORG: Institute of Ferrous Metallurgy, State Committee on Ferrous and Nonferrous Metallurgy, USSR State Planning Committee (Instytut chornoyi metalurgiyi Derzhkomitety po chorniy i kol'oroviy metalurgiyi pri Derzhplani SRSR)

TITLE: Measurements of viscosity of a pseudo-fluidized bed

SOURCE: AN UkrRSR. Dopovidi, no. 8, 1966, 1022-1024
TOPIC TAGS: viscosity, fluid viscosity measurement, magnetic field
SUB CODE: 20,13

ABSTRACT: The viscosity along the top of a fluidized bed was determined by measuring the velocity with which a plastic sphere containing lead filings fell into the bed. The sphere was suspended on a capron thread from a pulley and, in falling, moved a shutter to which the thread was fastened on the other side of the pulley. The movement of the shutter changed the amount of light illuminating a photoresistance that formed a part of an electric measurement circuit. Calibration in poises was carried out by conducting measurements on aqueous glycerine and molasses solutions of known viscosity. Viscosity measurements were carried out on a fluidized bed 400 mm high consisting of an iron ore concentrate with a mean particle diameter of 0.46 mm. The particles were held in suspension by CO_2 blown in at a velocity of 0.18m/sec (Re = 4.36). The viscosity showed a maximum at a depth of 180 mm in the layer, where the

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ACC NR: AP7007075

least permeable zone of suspended material was apparently located. The experimental set-up was equipped with electromagnets that were used to study the effects of a magnetic field on the structure of the fluidized bed. Orig. art. has: 4 figures. [JPRS: 39,658]

Card 2/2

NEKRASOVA, A.A., vrach

Aspirin. Zdorov'e 5 no.8:31 Ag '59. (MIRA 13:8)
(ASPIRIN)

NEKRASOVA, A. A.

Comparative activity of some blood enzymes in various forms of coronary insufficiency. Terap. arkh. 34 no.4:22-29 '62. (MIRA 15:6)

1. Iz Instituta terapii (dir. - deystvitel'nyy chlen AMN SSSR prof. A. L. Myasnikov) AMN SSSR.

(CORONARY HEART DISEASE) (TRANSAMINASES)
(ALDOLASE)

ALEKSEEVA, A.S.; NEKRASOVA, A.A.

Changes in transaminase activity in experimental and clinical atherosclerosis. Cor vasa 5 no 3 190-196 1963.

1. Institute of Therapy, Academy of Medical Sciences of the USSR, Moscow.

(ARTERIOSCLEROSIS) (CHOLESTEROL) (OILS)
(ALANINE AMINOTRANSFERASE) (AORTA)
(ASPARTATE AMINOTRANSFERASE) (MYOCARDITIS)
(BLOOD CHEMICAL ANALYSIS) (PYRIDOXINE)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

[illegible]

[illegible]

"The effect [illegible] of grape vines." [illegible] Inst. Odessa, 1956. (Dissertation for the degree of Candidate in [illegible] agricultural sciences)

Sel'skaya zhizn'
No. 1, 1957, [illegible]

NEKRASOVA A. A.

COUNTRY : USSR
CATEGORY : Cultivated plants. Fruits. Berries.

ABS. JOUR. : RZhBiol., No. 3, 1958, No. 12[illegible]19

AUTHOR : Nekrasova, A. A.
INST. : [illegible]
TITLE : Effect of [illegible] on the [illegible] of [illegible].

ORIG. PUB. : Izv. [illegible] Fil. [illegible], 19[illegible], [illegible], 97-104

ABSTRACT : A study of the effect of different [illegible] of organic [illegible] fertilizers in different [illegible], showed that water [illegible] increase the [illegible] and the [illegible] 32-5[illegible]. The best effect was produced by [illegible] of [illegible] diameter. The rate of the application of mineral fertilizers can be decreased by one half in comparison with the [illegible] fertilizers. The number of fruit-bearing [illegible] in [illegible] were developed better in the very first year of the application of fertilizers. [illegible]

CARD: 1/2

NEKRASOVA, A.A.; YEFIMOVA, L.G.

Changes in transaminase activity and the content of amino acids in the blood serum in acute myocardial infarct. Kardiologiia 3 no.4:69-72 Jl-Ag'63 (MIRA 17:3)

1. Iz Instituta terapii (dir. - deystvitel'nyy chlen AMN SSSR prof. A.L.Myasnikov) AMN SSSR.

NEKRASOVA, A.A.

In the ne. region [illegible] -23
Ju '65. [illegible] 1P:

NEKRASOVA, B. A.

22954 Termodinamika reaktsiy degidrirovaniya spirtov. Ravnovesiye reaktsii: $2\ C_2H_5OH \rightleftarrows CH_3COOC_2H_5 + 2H_2$. Zhurnal obshchey khimii, 1949, Vyp. 6, C. 1094-100. Bibliogr: C. 1100.

SO: LETOPIS' NO 31, 1949

NEKRASOVA, G.

Requirements of the new machinery. Prof.-tekh. obr. 20 no.1:28 Ja '63. (MIRA 16:2)
(Textile workers—Education and training)

NEKRASOVA, G., starshiy tekhnik

Extraction square [illegible]
i vodruzh. no.216 [illegible]

NEKRASOVA, G. A.

Analytical Chemistry

Dissertation: "The Use of Organic Reagents (Oximes) in the Analysis of Platinum Metals." Cand Chem Sci, Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR, Oct-Dec 1953. (Vestnik Akademii Nauk, Moscow, Mar 54)

SO: SUM 213, 20 Sept 1954

NeKrasova, G. A.

2

Complex compounds of palladium, platinum, and rhodium with salicylaldoxime, benzoin α-oxime, and furil α-dioxime. N. K. Pshenitsyn and G. A. Nekrasova. *Izvest. Sektora Platiny i Drug. Blagorod. Metal., Inst. Obshch. i Neorg. Khim., Akad. Nauk S.S.S.R.* 30, 59-70(1956).—Pd and Pt compds. of salicylaldoxime, of the general compsn. $[M(C_7H_6O_2N)_2]$ were investigated. The new $M[Pd(C_7H_6O_2N)(C_7H_5O_2N)]$, where M = K or NH_4, are described. Two new Rh compds. with salicylaldoxime, $Rh(C_7H_6O_2N)_3$, differing in color, crystallographic properties and solv. in various org. solvents, are assumed to be geometric isomers. The Pd benzoin oxime deriv. $[Pd(C_{14}H_{10}O_2N)_2]$, and the furil dioxime derivs. $[M(C_{10}H_6O_4N_2)_2]$ (M = Pd or Pt), and $H[Rh(C_{10}H_6O_4N_2)_2Cl_2]$ are described. W. M. S.

McKRASOVA, G.A.

The use of organic reagents (oximes) in the analysis of platinum metals. N. K. Pshenitsyn and G. A. Nekrasova. Tsvet. Metally 1, Drag. Blagorodn. Metally, No. 1, 30-11 (1935).—Pd is quantitatively pptd. with salicylaldioxime when the HCl acid content does not exceed 1% by wt., or H_2SO_4 0.5%. This reagent permits a quant. sep. of Pd from Pt, Ir, Ru, Au, Ni, Fe^{+++}, and Pb. Pd is quantitatively pptd. with α-benzoin oxime in weakly acid soln. This reagent is very sensitive to Pd and is suitable for the det. of microquantities of Pd. The use of β-furfuraldioxime permits the Pd det. in a mixt. of the pure salt, and in the presence of Pt, Ir, Ru, Ni, Co, and Fe^{+++}. Pd is quantitatively pptd. with α-furil dioxime at HCl concn. of below 0.5% by wt. α-Furil dioxime fails to ppt. Pt quantitatively. Pt is pptd. (98-9%) with α-furil dioxime upon long heating.

W. M. Sternberg

NEKRASOVA, G. A.

2

Palladium, platinum, and rhodium complex compounds with β-2-furaldoxime. N. K. Fiksman and G. A. Nekrasova. Inst. Sobiera Platiny i Drag. Metallov, [illegible] i Nauk, Khim. Abod. Nauk S.S.S.R. 30, 1[illegible] (1[illegible]).—The *trans*-[Pd(C$_5$H$_5$O$_2$N)$_2$Cl$_2$] is formed when a HCl soln. of a complex Pd chloride reacts with an alc. soln. of β-2-furaldoxime. The properties of [Pd(C$_5$H$_5$O$_2$N)(C$_5$H$_6$O$_2$N)$_2$] are listed; with dil. HCl, it produces *cis*-[Pd(C$_5$H$_6$O$_2$N)$_2$Cl$_2$], and with concd. NH$_4$OH it produces *cis*-[Pd(C$_5$H$_6$O$_2$N)$_2$(NH$_3$)$_2$]. The interaction of H$_2$PtCl$_6$ with β-2-furaldoxime gives *cis*-[Pt(C$_5$H$_6$O$_2$N)$_2$Cl$_2$]. The properties of [Pd(C$_5$H$_6$O$_2$N)$_2$]SO$_4$, pptd. from H$_2$SO$_4$ soln., are discussed, and [Rh(C$_5$H$_6$O$_2$N)$_2$Cl$_2$], not previously described was studied.

W. M. Sternberg

BM

PSHENITSYN, N.K.; NEKRASOVA, G.A.

Complex compounds of palladium, platinum, and rhodium with salicylaldoxime, α-benzoinoxime, and α-furyldioxime. Izv. Sekt.plat.i blag.met. no.30.159-170 '55. (MLRA 8:8)
(Platinum group) (Organometallic compounds)

80-8-15/26

AUTHOR: NEKRASOVA, G.A., LEVINSKIY, S.V., ORLOV, O.Ya., KONSTANTINOV, K.M.

TITLE: The Application of Radioactive Isotopes in the Agriculture and Science of the U.S.S.R. (Primenenie radioaktivnykh i stabilnykh izotopov i izucheniy v narodnom khozyaystve i nauke v S.S.S.R., Russian)

PERIODICAL: Atomnaya Energiya, 1957, Vol 3, Nr 8, pp 162-166 (U.S.S.R.)

ABSTRACT: In April 1957 an isotope Conference took place in Moscow which was attended by more than 3000 delegates of 1016 different firms and institutes. Altogether, 444 papers were read which were distributed over 4 departments: 1.) The technical and industrial use of isotopes, 2.) Chemistry, 3.) Biology, medicine, agriculture, 4.) The production of isotopes and γ -guns.

ASSOCIATION: Not given

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 1/1

NEKRASOVA, G.A.

636. Use of β-furfuraldoxime for determining large amounts of palladium in the presence of copper and nickel. A. N. Kuznetsov and G. A. Nekrasova (N. S. Kurnakov Inst. of Gen. and Inorg. Chem., Acad. Sci., USSR, Moscow). *Zhur. Anal. Khim.*, 1957, 12 (5), 206–207.—The soln. (100 ml) containing 2% of HCl by wt. and Pd, Cu and Ni is treated during stirring with a 10% soln. of β-furfuraldoxime in ethanol, the ppt. of $Pd(C_5H_5O_2N)_2Cl_2$ is collected and washed with 1% HCl and then with water, and dried at 110°, and the filtrate containing Cu and Ni is evaporated with H_2SO_4 and HNO_3 to destroy organic matter. The residue ($NiSO_4$ and $CuSO_4$) is dissolved in water, acetic acid and Na acetate are added, the Cu is pptd. with salicylaldoxime soln., and the ppt. is dried to constant wt. at 100°. Aq. NH_3, followed by salicylaldoxime, is added to the filtrate, and the pptd. nickel compound is dried to constant wt. at 100°.

G. E. SMITH

4E3d
JEW 8/7

NS/1 FB

VINOGRADOV, A. P., akademik, otv. red.; [illegible], N., akademik, red.; ALEKSANDR[illegible], I.I., red.; [illegible], A.A., [illegible] khim. nauk, red.; [illegible], L.A., [illegible] khim. nauk, red.

[Isotopes and [illegible] in chemistry, [illegible] ne] Izotopy i izmechenie v khimii, trudy [illegible] sessii. [illegible] AN SSSR, 1958. [illegible] p.

1. Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh [illegible] izotopov i izmechenykh v narodnom khozyaystve. [illegible], 1, [illegible], 1958.
2. Chlen-korrespondent AN SSSR (for A. [illegible]).

L 40715-65 EPF(c)/EPR/EPA(s)-2/EWP(k)/EWP(z)/EWA(c)/EWT(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(v)/EWP(t) Pf-4/Pu-4 IJP(c) EM/MJW/JD/HW/WW/JG/WB
ACCESSION NR: AP5006998 S/0126/65/000/003/0002/0005

AUTHOR: Fridlyander, I. N.; Yatsenko, K. P.; Semenova, Z. G.; Nekrasova, G. A.

51
44
B

TITLE: Aluminum beryllium-base alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1965, 2-5, and top half of insert facing p. 24

TOPIC TAGS: aluminum alloy, complex aluminum alloy, beryllium containing alloy, high elasticity alloy, alloy workability

ABSTRACT: Alloying beryllium is the most effective means of increasing the specific elasticity modulus (the elasticity modulus-to-density ratio) of aluminum alloys. High-modulus aluminum-beryllium alloys have an adequate fabricability and yield better to pressure working than pure beryllium. The heterogeneity of their structure strongly impedes the grain growth even with prolonged holding at high temperatures. However, binary Al-Be alloys, even with a high Be content, have a low tensile and creep strength. Two types of high-strength,

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ACCESSION NR: AP5006998

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high-elasticity AlBe-base alloys have been developed. Alloys of the first type are nonheat treatable, contain 15—60% Be and up to 15% of other alloying elements, and have a tensile strength σ_b = 40—60 kg/mm^2, an elongation δ = 8—20%, and E = 10,000—18,000 kg/mm^2. Alloys of the second type are heat treatable, contain 15—40% Be and up to 10% of other alloying elements, and have σ_b = 52—69 kg/mm^2, δ = 8—12%, and E = 11,500—14,000 kg/mm^2. Alloys of the first type have a better formability, sustain prolonged holding at temperatures up to 500C without impairing the room-temperature mechanical properties, and have a higher specific modulus of elasticity than any of the structural materials presently used, including aluminum or titanium-base alloys and steels. These alloys can be used at temperatures up to 450C; they have a tensile strength of 30—36, 20—34, 12—16, and 3—8 kg/mm^2 at 200, 300, 400, and 500C, respectively; the corresponding figures for elongation are 11—35, 9—30, 7—37, and 4—31%. At 20C, work-hardened sheets of the alloys of this type with the highest Be content have σ_b = 70—75 kg/mm^2, δ = 2—5.6% and E = 18,000 kg/mm^2. Hot, extruded or rolled, complex-alloyed, Al-Be alloys have a cyclic strength and notch sensitivity comparable to those of D 16 [U.S. 2024] aluminum alloy. Annealing of work-hardened sheets at a temperature above 350C

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ACCESSION NR: AP5006998

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restores the plastic properties of the alloys without increasing the grain size; the cooling rate after annealing has no effect on the mechanical properties of the alloys. The AlBe-base alloys are not susceptible to intercrystalline and stress corrosion, and their general corrosion resistance is higher than that of unclad D16 aluminum alloy. The alloys can be extruded or rolled. Parts of a complex shape can be made from these alloys by die forging or sheet forming. They can be joined by riveting, and spot, seam, and automatic and manual argon shielded-arc welding. The argon shielded-arc welded joints with reinforcement have a tensile strength equal to 90% of the strength of the base metal, with the weld ductility equal to that of the base metal; the weld strength is 5 kg/mm^2 at 500C. The alloys can readily be welded with other materials. The use of Al-Be alloys is particularly effective in structures requiring high rigidity. When the alloys are used in combination with other materials, a saving of 20—50% in the weight of a structure can be achieved. Orig. art. has: 1 figure and 2 tables. [MS]

Card 3/4

1. GEHKINA, R. Z. NEKRASOVA, G. B. SAVARI, I. A.

2. USSR (600)

4. Issyk-Kul'District-Coal

7. Survey of the coal deposits of the Issyk-Kul'District form the viewpoint of prodindin coal to the local enterprises fo the Kirghiz S. S.R. (Abstract) Izv. Glav. upr. geol. fon,.no '47.

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

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

KUZNETSOV, A.D.; TRIFSIK, G.B., red.; NEKRASOVA, G.N., mlad. red.; GERASIMOVA, Ye.S., tekhn. red.

[Development of productive and nonproductive spheres in the U.S.S.R.; regularities of labor distribution in the society] Razvitie proizvodstvennoi i neproizvodstvennoi sfer v SSSR; zakonomernosti raspredeleniia truda vnutri obshchestva. Moskva, Ekonomika, 1964. 227 p. (MIRA 17:3)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001136

TYAGUNOV, G.A.; MIKRASOVA, I.F.

Calculating homogeneous metal cathodes. Sbor.nauch.rab. MIFIne.9:22-31 '55. (MLRA 10:1)

(Electric tubes)

NEKRASOVA, Idlena Maksimovna; CHUGAYEV, D.A., otv.red.; KIND, T.B., red. izd-va; POLENOVA, T.P., tekhn.red.

[The Lenin plan for the electrification of the country and its realization from 1921 to 1931] Leninskii plan elektrifikatsii strany i ego osushchestvlenie v 1921-1931 gg. Moskva, Izd-vo Akad.nauk SSSR, 1960. 142 p. (MIRA 13:5)
(Electrification)

LEV[illegible]VA, Iulena Maksimovna, FILATOVA, I.T., red.

[Trade-union work in the introduction of scientific achievements into production; about the forms of creative alliance between scientists and workers] Rabota profsoiuzov po vnedreniiu dostizhenii nauki v proizvodstvo; o formakh tvorcheskogo soiuza uchenykh i rabochikh. Moskva, Profizdat, 1965. 58 p. (MIRA 18:9)

S/205/61/[illegible]
D268/D[illegible]

AUTHOR: Alekseyeva, S.I., Grayevskiy, Ye.Ya., [illegible], Nekrasova, I.V., and Tumbiyev, A.Kh.

TITLE: The effect of cell suspension density on radiosensitivity of yeasts

PERIODICAL: Radiobiologiya, v. 1, no. 6, 1961, [illegible]

TEXT: The correlation between concentration of suspensions and radiosensitivity was studied in 5 yeast strains: the haploid Zygosaccharomyces bailii, diploid Saccharomyces vini Negri 1[illegible]-B, and 4 strains of S. cerevisiae, haploid 127-12 d, diploid WY-11[illegible], and tetraploid 16 x 32. Strains were cultured on wort agar at 28 - [illegible]°C and irradiated after 2 - 3 days development. Either aliquots obtained by scraping hard medium or by centrifuging dense solutions, or suspensions with a concentration of 10^9 - 10^4 cells/ml were irradiated. A РУП-200 apparatus (RUP-200 industrial X-ray unit 2[illegible]) with a dose rate of 5,400 r/min. was the X-ray source, and a ГУТ Co-400 apparatus (GUT-Co-400, therapeutic gamma unit [illegible]) the

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gamma ray source Strains were also irradiated in [illegible] tein solution Cell viability was determined by [illegible] micro-colonies, incubated on wort agar at [illegible]°C, according to methods previously described by Korogodin (Ref. 8 [illegible] Biofizika, [illegible] 178, 1957, 3, 206, 1958) Oxygen content in aqueous suspensions of different concentrations was determined polarographically by a method described by Konstantinova and Grayevskiy (Ref. 1 : Dokl. AN SSSR, 132, 1427, 1960) Aqueous suspensions of the 7 S cerevisiae strains exposed to X-rays showed a fall in dose effectiveness as the cell suspension concentration increased The oxygen content was determined polarographically in suspensions at different concentrations Results showed a clear fall in oxygen tension as the suspension concentration increased. Respiration intensity was determined in Z Baillii and Megri 139-B and showed that the QO_2 for the former was 840 ± 156, and for the latter 3,100 ± 420 μ[illegible] hour for [illegible] cells It was much lower in haploid than in diploid cells [illegible] Accordingly the concentration effect would be weaker in Z [illegible] than in Megri 139 B If the effect were due to oxygen [illegible] suspension concentration would affect radiosensitivity [illegible]

12750
S/205/61/001/006/010/012
D268/D305

The effect of cell suspension ..

with irradiation in oxygen-free conditions than in aerated water, especially in a strain with low respiration intensity. This would be in line with the views of Gunter and Kohn (Ref. 4: J. Bacteriol. 72, 422, 1956). 10^6 cells/ml suspensions and aliquots from both strains were exposed to gamma-irradiation in the 1-m sphere and in a vacuum, and viability determined according to micro-colonies. Results completely confirmed the proposition. The dose effectiveness reduction coefficient for the haploid strain irradiated in air was 0.81, and for the diploid 0.47. In conditions of anoxia, no concentration effect was observed for the former, while in the latter the dose effectiveness reduction coefficient was 0.81. Oxygen content in suspensions in a vacuum was 3 - 5 % compared with that in dilute suspensions in the air. Irradiation of 10^6 cells/ml suspensions of haploids and diploids in 5 and 10 % egg protein solutions with gamma-rays showed no protective reactions by the proteins. According to Gunter and Kohn yeast cells are also only very mildly sensitive to H_2O_2. Tests were made with 4 strains. Results showed that though they differed in their sensitivity, haploids being most sensitive, H_2O_2 only affected viability noticeably at concentrations

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of 13.4 and 28.8 ug./ml. Experiments were also made to determine the effect of suspension concentration at the time of irradiation on post-radiation recovery with Megri 149-B, whose post-radiation recovery has been already described by Korogodin (Ref. 1: Biofizika 3, 703, 1958). Exposure was to gamma-irradiation. Part of the suspension was sown on nutrient medium immediately after irradiation and part at 24 - 48 hours. Viability was determined by major colonies. In both cases change in dose effectiveness was largely dependent on suspension concentration at irradiation. The extent of post-radiation recovery of yeast cells was virtually independent of their concentration at irradiation, the dose effectiveness reduction coefficient fluctuating within 0.4[illegible] to [illegible]. It is concluded that at concentration effect was produced when yeast cells were irradiated with X- and gamma-rays in normal air and in the case with oxygen deficiency. Radiosensitivity was independent of suspension density up to a concentration of 10^6 cells/cm.[illegible] but increased proportionally to the concentration logarithm with a further increase in density. The concentration effect was more pronounced in the strain with greater respiration intensity. The very poor sensitivity of yeast cells to H_2O_2 was demonstrated as well as the [illegible]

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ion in oxygen tension with increase in suspension [illegible] There are 5 figures, 4 tables and 14 references, 8 Soviet-bloc and 6 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: S. Gunter and H. Kohn, J. Bacteriol., 72, 422, 1956. T. Alper, Radiation Re[illegible] T. Alper and N.E. Gillies, Radiation Res., 9, [illegible], N.E. Gillies and T. Alper, Nature, 183, 237, 1959.

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