

S/130/60/000/006/006/011

AUTHORS: Kudrin, V. A., Nechkin, Yu. M., Tyurin, Ye. I., Abrosimov, Ye. V.

TITLE: Experiments on Compressed-Air Blow of Metal in Acid Open Hearth Furnaces

PERIODICAL: Metallurg, 1960, No. 6, pp. 17-18

TEXT: Blowing of the metal pool in open-hearth process may be successfully performed by replacing oxygen by compressed air. To reveal the special features in the technology of steel melting in an acid furnace with blowing of the pool, a number of melts using compressed air, were performed at one of the Ural plants. The experiments were made on 85-ton acid open-hearth furnaces with a hearth surface of 27-28 m² and 860-mm deep metal pool; blast furnace gas and mazut were used as fuels; the tests were carried out on УХ-15 (ShKh15) steel with limited silicon reduction. The bubbling time was 2-3 hours. Iron tubes of 1 inch in diameter and 4-6m length were employed for the blast. The pressure of compressed air was 4-6 atm. and its consumption was about 500-700 nm³/hour. Changes in the composition of the metal and the slag of one experimental smelt are given in a graph. It was established that air blast employed for an acid open hearth pool increased the burning-out rate of carbon up to 0.75% C/hr,

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Experiments on Compressed-Air Flow of Metal in Acid Open-Hearth Furnaces

caused a sharp increase in the metal temperature during the blast and reduced the time of bubbling without impairing the metal quality. Blowing of the pool eliminates the use of scarce pure iron ore with respect to P and S content and the contamination of the steel by alumina. The described method reduces the period of the passive pool state prior to active bubbling. There are 1 graph and 1 table.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

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TYURIN, Ye. I.

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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. 439 p. (Series: Trudy Mezhvuzovskogo nauchnogo soveshchaniya) 2,150 copies printed.

Sponsoring Agency: Ministerstvo vysshogo 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. Yavovskiy, 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.

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New [Developments] in the Theory (Cont.)

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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. Yavovskiy, 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).

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New [Developments] in the Theory (Cont.)

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

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Filippov, S. I. [Professor, Doctor of Technical Sciences, Moscow Steel
Institute]. Regularity Patterns of the Kinetics of Carbon Oxidation
in Metals With Low Carbon Content 15
[V. I. Antonenko participated in the experiments.]

Levin, S. L. [Professor, Doctor of Technical Sciences, Dnepropetrovskiy
metallurgicheskoy institut - Dnepropetrovsk Metallurgical Institute].

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Card 10/14

YAKUSHEV, A.M.; YAVOYSKIY, V.I.; KRYAKOVSKIY, Yu.V.; Prinimali
uchastnye: TYURIN, Ye.I., kand.tekhn.nauk; KRAUZE, I.E.,
kand.tekhn.nauk; VISHKAREV, A.F., kand.tekhn.nauk

Effect of rare earth elements on hydrogen solubility in liquid
iron. Izv. vys. ucheb. zav.; Chern. met. 4 no.7:44-54 '61.
(MIRA 14:8)

1. Moskovskiy institut stali.
(Iron-Hydrogen content)
(Rare earth metals)

L 28479-66 EWI(m)/EWA(d)/EWP(t)/EII IJP(c) JD/JG

ACC NR: AP6010137

SOURCE CODE: UR/0133/66/000/003/0253/0257

AUTHOR: Sidel'kovskiy, M. P. (Candidate of technical sciences); Tyurin, Ye. I. (Candidate of technical sciences); Danilin, V. I. (Candidate of technical sciences); Frantsuzov, S. N. (Engineer); Sinolitkiy, K. A. (Engineer); Stromova, R. P. (Engineer); Antipova, K. I. (Engineer); Selivanov, V. M. (Engineer); Petrov, B. S. (Engineer)

ORG: Volgograd Scientific Research Institute of Machine Building Technology (Volgogradskiy n.-l. institut tekhnologii mashinostroyeniya); Krasnyy Oktyabr' Plant

TITLE: Effect of treatment with minute amounts of boron on the properties of Kh23N18 chromium-nickel steel

SOURCE: Stal', no. 3, 1966, 253-257

TOPIC TAGS: stainless steel, boron, chromium steel, nickel steel, metal melting, weldability, metal scaling / Kh23N18 Cr-Ni stainless steel

ABSTRACT: This effect was investigated for 12 laboratory melts and 45 industrial melts of Kh23N18 stainless heat-resistant chromium-nickel steel (0.08-0.13% C, 1.44-1.82% Mn, 0.20-0.47% Si, 22.05-24.30% Cr, 18.48-19.24% Ni, 0.013-0.033% P, 0.006-0.020% S). (The industrial melts contained 0.18-0.29% Cu.) Boron was added to the laboratory melts in the form of 28% ferroboration prior to tapping, and to the industrial

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UDC: 66.046.51+546.27:669.15 — 194.669.24'25

L 28479-66

ACC NR: AP6010137

melts in the form of 10% ferrobore while filling the bottom one-third of the ladle, in proportions of 0.0047-0.0015%. Specimens taken from the ingots, after their hot and cold working, were subjected to microstructural examination and X-ray diffraction analysis. Findings: "microtreatment" with boron affects the structure and phase composition of stainless steels of the Kh23N18 type. At ~1150°C the segregation of a boride phase, clearly visible under an optical microscope, is observed. In the temperature range 1050-1200°C and particularly at 1100-1150°C, treatment with minute amounts of B markedly enhances the plasticity of Kh23N18 steel thus reducing its susceptibility to external defects when rolled in a blooming mill. Under optimal conditions of final deoxidation (with 0.4-0.8 kg of Al per ton) prior to addition of boron, the percentage of defect-free slabs markedly increases and the labor requirement of finishing operations decreases; at the same time, savings of Ni are achieved. (To enhance the effectiveness of treatment with boron, final deoxidation with Al is required, since Al prevents the fixation of B by nitrogen and thus increases the degree of the assimilation of B.) If the B content is 0.003% and more, Kh23N18 steel becomes more prone to cracking during argon-arc welding whereas if the B content is 0.0015% and Al is used as the deoxidant, the weldability of this steel is as good as that of its boron-free counterpart. The addition of B within the limits investigated (up to 0.0047% inclusively) increases the resistance of Kh23N18 steel to scaling at 1000°C and when the B concentrations reach approximately 0.003-0.004%, also at 1100°C. Orig. art. has: 4 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

Card 2/2 CC

TYURIN, Ye.I.

X-ray diagnosis of syphilitic lesions of the stomach. Vest. rent.
i rad. 39 no.5:57-59 S-0 '64. (MIRA 18:3)

1. Klinika voyenno-morskoy i gosptal'noy terapii (nachal'nik -
prof. Z.M. Volynskiy) Voyenno-meditsinskoy ordena Lenina akademii
imeni Kirova, Leningrad.

AUTHORS: Tyurin, Ye. I., Abrosimov, Ye. V., SOV/163-58-3-19/49
Saer, T. M.

TITLE: Investigating the Non-Metallic Inclusions in Acid Ball-Bearing Steel by the Radioactive Indicator Method (Issledovaniye nemetallicheskih vklyucheniye v kisloy sharikopodshipnikovoy stali metodom radioaktivnykh indikatorov)

PERIODICAL: Nauchnyye doklady vyshey shkoly. Metallurgiya, 1958, Nr 3, pp 108 - 114 (USSR)

ABSTRACT: The influence of calcium silicate on the properties and the character of non-metallic inclusions in melts was investigated. The investigation was carried out with the radioactive isotope Ca^{45} . The distribution of calcium on metal and slag, as well as the distribution coefficient were determined. Furthermore the influence exerted by non-metallic inclusions was investigated which are contained in calcium metal. The non-metallic inclusions in calcium amount to 0,2020%. Calcium oxide occurs in non-metallic inclusions in the form of calcium silicate, calcium-aluminum silicate and the complex silicates $CaO - FeO - SiO_2$. The impurities in calcium amount to 0,0060%.

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Investigating the Non-Metallic Inclusions in Acid Ball- SOV/163-58-3-19/49
Bearing Steel by the Radioactive Indicator Method

The distribution of the non-metallic inclusions in calcium depends on the crystallization process of the melt. The inclusions in the steel are in solid solution. They are plastic and cannot be deformed during the rolling process. The basic mass of the calcium containing non-metallic inclusions in the deoxidation process and in the crystallization of the steels are in liquid and semi-liquid state. There are 3 figures, 3 tables, and 6 references, which are Soviet.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: March 24, 1958

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S/137/61/000/011/025/123
A060/A101

AUTHORS: Kudrin, V. A., Nechkin, Yu. M., Tyurin, Ye. I., Abrosimov, Ye. V.

TITLE: Technology of acid open-hearth smelting

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 38, abstract
11V229 (V sb.: "Novoye v teorii i praktike proiz-va martenovsk.
stali". Moscow, Metallurgizdat, 1961, 299 - 304. Discuss. 332 - 334)

TEXT: Under normal operation of an acid open-hearth furnace with solid charge, the slag composition is regulated by the fettling of the furnace independently of the type of the process and the charge composition. The quantity of the slag is determined by the quality of the fettling and the composition of the charge and depends mainly upon the Mn content of the charge. As the Mn content of the charge increases, both when operating with reversible slag and when operating without it, the quantity of slag increases sharply. Thus, when the Mn content of the charge is 0.3 - 0.4% the quantity of slag after the melting constitutes 2 - 3% for 1.2 - 1.4% Mn content the quantity of slag increases up to 5 - 5.5%. Silicon from the fettling is expended in the slagging of the MnO, and thus in operating without reversible slag, up to the moment of melting the slag consists, in amount

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Technology of acid open-hearth smelting

S/137/61/006/011/025/123
A060/A101

of 40 - 50%, of the material of the furnace hearth and walls. In operating with reversible slag this figure is reduced to 10 - 20%. The expenditure of charging materials is also reduced correspondingly. The presence of 0.8 - 0.9% Mn in the charge promotes the production of metal with a lower silicate impurity content, and a higher Mn content is inexpedient since it leads to an increase in the quality of slag and correspondingly to an increase in the expenditure of charging materials and the burn-off of Mn and Fe. A further increase of SiO₂ content in the slag during the process of ebullition occurs as result of the reduction of Si from the hearth and its oxidation at the metal-slag interface, as supported by the experimental data as to the presence of a gradient in the Si-concentration as a function of the vat depth. An increase in SiO₂ content of the slag leads to a reduction in the fluidity of the slag and the rate of O₂ flow from the atmosphere of the furnace through the slag into the metal. By adding FeO, MnO, CaO, the activity of the slag and the oxidation rate of the Si may be equal to its reduction rate from the hearth. The type of the process - with Si reduction and without it - has a considerable effect upon the composition of the nonmetallic impurities and upon the process of their elimination.

[Abstracter's note: Complete translation]

Yu. Nechkin

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I 17462-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD

S/0129/63/000/008/0011/0018

ACCESSION NR: AP3004762

AUTHORS: Kryakovskiy, Yu. V.; Rubenchik, Yu. I.; Tyurin, Yo. I.; Yavovskiy, V. I.

TITLE: Mechanical properties and nature of nonmetallic inclusions in alloyed construction steel with a rare earth element admixture 61
60

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 8, 1963, 11-18

TOPIC TAGS: steel mechanical property, steel nonmetallic inclusion, alloy steel, mischmetal, 30KhGSA steel, 12KhMF steel, 12KhNZA steel

ABSTRACT: Authors analyzed the effect of small admixtures of mischmetal and ferrocerium on the mechanical properties of 30KhGSA, 12KhMF and 12KhNZA steels. They also studied the nature of non-metallic inclusions in a steel with rare earth element admixtures. The test heats were executed in basic 60 and 140-ton open hearth furnaces fired by natural gas and black oil. Authors conclude that mischmetal admixtures in amounts of 0.5 to 3 kg per ton into the above-mentioned steels increase the impact toughness in drawn-out and transverse samples. These same admixtures lower the cold brittleness threshold of 12KhMF steel, but they improve the plastic and impact properties of cast metal from 12KhNZA steel. The introduction of mischmetal reduces the zonal liquation in alloyed

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L 17143-63
ACCESSION NR: AF3004782

construction steel ingots. Rare earth elements alter the nature and distribution of the non-metallic inclusions in steel, which, in all probabilities, explains the increase in mechanical properties. When more than 0.8-1.0 kg per ton of mischmetal is added to an ingot, the appearance of macro defects in the steel, which are caused by conglomeration of the rare earth element inclusions, is possible. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow institute for steel and alloys)

SUBMITTED: 00

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: ML

NO REF SOV: 004

OTHER: 000

Card 2/2

TYURIN, Yu., sud'ya respublikanskoy kategorii

Technique of rowing. Voen. zhnan. 36 no.9:31 S '60.
(Rowing)

(MIRA 13:9)

TYURIN, Yu.

Training judges for composite water events. Voen.znan.
36 no.3:33 Mr '60. (MIRA 13:3)

1. Starshiy instruktor Tsentral'nogo morskogo kluba Dobrovol'-
nogo obshchestva sodeystviya armii, aviatsii i flotu.
(Aquatic sports)

KUDRIN, V.A., kand.tekhn.nauk, dotsent; TYURIN, Ye.I., inzh.; NECHKIN,
Yu.M., inzh.; ABROSIMOV, Ye.V., kand.tekhn.nauk

Smelting of ball-bearing steel in acid open-hearth furnaces.

Izv.vys.ucheb.zav.; chern.met. no.6:35-46 Je '58.

(MIRA 12:8)

1. Moskovskiy institut stali. Rekomendovano kafedroy metallurgii
stali Moskovskogo instituta stali.

(Open-hearth process)

(Bearing metals)

TYURIN, Ye. I., Cand Tech Sci--(diss) "Non-metal impurities in the pro-
cess of ^{the} smelting and ~~some~~ casting of acid ¹⁰ ~~basic~~ steel." Mos, 1958.
18 pp, incl cover. (Min of Higher Education USSR. Hon Order of Labor Red
Banner Inct ^{of Stal} I.V. Stalin), 120 copies (10, 40, 50, 120)

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TYURIN, Ye.I.; ABROSIMOV, Ye.V.; SAAR, T.M.

Investigating nonmetallic inclusions in acid roller bearing steel
by means of radioactive tracers. Nauch.dokl.vys.shkoly; met. no.3:
108-114 '58. (MIRA 11:11)

1. Moskovskiy institut stali. (Bearing metals) (Steel--Defects) (Radioactive tracers)

ANTIPOV, K.I.; TYURIN, Ye.I.; SHASHKOVA, V.K.

It is necessary to specify heat-treatment conditions for
36G2S steel according to State Standard 4543-61. Standarti-
zatsiia 29 no.7:60-61 JI '65. (MIRA 18:11)

TYURIN, Y.Y.

TYURIN, Yu.

Training crews on ships and cutters. Voen. znani. 33 no.4:27-30, 1957.
(Naval education) (MIRA 10:6)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757730008-3

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757730008-3"

BRODSKIY, Yu.A.; TYURIN, Yu.M.; KLEGG, D.I.; BARSKOV, I.M., redakter;
LYUDKOVSKAYA, N.I., tekhnicheskii redakter.

[Conveyer for the production of polished plate glass] Konveier dlia
proizvodstva polirovannogo listevogo stekla. Moskva, Gos. izd-vo
lit-ry po stroit. materialam, 1955. 98 p. (MLBA 9:4)
(Plate glass) (Conveying machinery)

Ts. U. R. I. N. S. U. M.

USSR/Chemical Technology. Chemical Products and their Application.
Glass. Ceramics. Building Materials.

J-12

Abs Jour: Referat Zh.-Kh., No 8, 1957, 2763⁴

Author : Yu. A. Brodskiy. Yu. M. Tyurin, R.I. Tsoy.

Inst :

Title : Experiment of Application of Polirite to Polishing Glass
on Conveyers.

Orig Pub: Steklo i keramika, 1956, No 7, 8-11.

Abstract: The new polishing material - polirite (P) - has a polishing capacity 2 to 2.5 times greater than the ordinary crocus. The chemical composition of a batch of P is (in %): CeO_2 - 47.35; oxides of other rare earth metals (lanthanum, praseodymium, neodymium etc.) 47.27; SiO_2 - 0.16; Al_2O_3 - 2.21; Fe_2O_3 - 0.77; CaO - 0.42; MgO - 0.17; loss on ignition - 1.2. The main polishing component of P is CeO_2 , the content of which in P should be $\leq 40\%$. The presence of CaO in the amount of above 1% decreases the polishing ca-

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USSR/Chemical Technology. Chemical Products and their Application.
Glass. Ceramics. Building Materials.

J-12

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27634

capacity considerably. The temperature of roasting of P is of an essential importance to its polishing capacity, the optimum temperature being 1100° . The test of P was carried out on a conveyor ShS-500, the speed of the band having been 2.42 m/min, and the initial ground glass surface had unevennesses $U_{\max} = 3.0$ to 3.5μ ; the polishing capacity of P was 0.3148 g. The pressure on the polisher in 49 polishing benches was 73 g/sq. cm, and it was from 33 to 73 g/sq. cm in other 6 benches. The total glass polishing amounted to 10.4μ . Under the same conditions of polishing, but at the band speed of 2.20 m/min, the polishing of glass with crocus, the polishing capacity of which was 0.1916 g, was 10.5μ . The substitution of crocus with P under the same conditions of polishing results in a considerable raise of the yield of commercial 1st grade plate glass without any noticeable increase of the thickness of the polished layer

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USSR/Chemical Technology. Chemical Products and their Application. J-12
Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27634

of glass. Profile graphs of the glass surface are attached; these graphs show the glass surface at various stages of polishing, starting from a surface with a relief layer 3.0 to 3.5 μ thick and ending with a completely polished surface. The profile graphs were made with a diamond needle, the vertical magnification being 10,000 to 100,000 times. The conclusion that P works in the last stages of glass polishing more intensively than crocus is arrived at on the basis of the profile graphs.

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TYURIN, Yu. M.: ¹⁹⁵⁸ Master Chem Sci (diss) -- "The use of the method of charge curves in investigating powder metals". Moscow, 1958. 12 pp (Moscow State U in M. V. Lomonosov, Chem Faculty), 100 copies (KL, No 6, 1959, 126)

AUTHORS: Tyurin, Yu. M., Shlygin, A. I. SOV/156-58-2-14/48

TITLE: Concerning the Application of the Method of Charge Plots to the Investigation of Powdered Metals (O primenenii metoda krivyykh zaryazheniya k issledovaniyu poroshkoobraznykh metallov)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp. 261 - 265 (USSR)

ABSTRACT: The method referred to in the title was employed in the earliest investigations on the surface characteristics of several powdered metals (Refs 1,2). To make these plots an acceptable method, 2 methods were worked out: a) the wetting-out method and b) the impact method (Ref 2). The work reported in this paper should ascertain the possibilities and the reliability of the two methods. As working material, platinum black recrystallized at various temperatures was used (Ref 1). Carefully-purified 1 n. solutions of H_2SO_4 and HCl were used as electrolyte solutions. Figure 2 shows incomplete charge plots of the freshly recrystallized platinum black in 1 n. H_2SO_4 . Plot 1 is similar to that of platinumized platinum. The charging process was reversible in the entire potential range used. This indicated

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Concerning the Application of the Method of Charge Plots SOV/156-58-2-14/48
to the Investigation of Powdered Metals

the equilibrium condition which the black reached in producing the plots. The plots 2, 3, 4 coincide with plot 1, only in the region of the potential + 0,1 - 0,8 V. At the negative potentials indicated in plots 2, 3, 4, the influence of fluctuation in the form of the charge plot was especially noticeable. The reversibility of the charging process remained steady only in the latter potential range. To explain the anomalous curves (2, 3, 4) the influence of fluctuation on the charge plots of electrode A was studied without platinum black. The results are given in table 3. Electrode A was reversibly charged for the potential region in question in a steady system. During the plotting of the curve electrode B retained the initial value of + 0,50 - 0,55 V. The charging was accompanied by no change in the partial pressure of the hydrogen in the system. Apparently the hydrogen adsorbed on the surface of the electrode and the molecular hydrogen in solution did not come to equilibrium. Curve 1 therefore represents a system which is not in equilibrium thermodynamically. As is apparent from figure 3 plots 2, 3, 4, coincide with plot 1 in the range in question when they are plotted showing a cathodic

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Concerning the Application of the Method of Charge Plots SOV/156-58-2-14/48
to the Investigation of Powdered Metals

polarization of the electrode with various kinds of fluctuation. The charging process is here irreversible, of course. As a result the values of specific surfaces, calculated on the basis of the capacity of a double layer, are on the average 1,9 times greater than the corresponding values which were found in comparing the adsorption capacity of the platinum black and the smooth platinum. In further considering that the smooth platinum has a roughness factor of 1,5 - 2,0, these results, together in inset 3 of figure 1, can be made to agree well. There are 4 figures, 1 table, and 5 references, 4 of which are Soviet.

ASSOCIATION: Kafedra elektrokhemii Moskovskogo gosudarstvennogo universiteta im.M.V.Lomonosova (Chair of Electrochemistry of the Moscow State University imeni M.V.Lomonosov)

SUBMITTED: October 23, 1957

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Concerning the Application of the Method of Charge Plots 507/156-58-2-14/48
to the Investigation of Powdered Metals

Card 4/4

AUTHORS: Tyurin, Yu. M., Shlygin, A. I. SOV/156-58-3-2/52

TITLE: Investigations on the Caking of Platinum Black by the Method of Charge Curves (Izucheniye spokaniya platinovoy cherni metodom krivyykh zaryazheniya)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, No. 3, pp. 440-442 (USSR)

ABSTRACT: The caking of platinum black was investigated by the authors in order to find a connection between the catalytic activity of platinum black, the size of its specific surface, and its adsorption capacity. The oxidation of dimethylacetyleneilecarbinol and the decomposition of hydrogen peroxide were used to determine the catalytic activity. The specific surface and the capacity for adsorbing hydrogen and oxygen was measured by the method of charge curves. Platinum black was thermally treated in a nitrogen atmosphere for one hour; the temperature interval from 100° to 600° was covered. The initial properties of the platinum black used are given in table 1. The experimental results obtained are given in diagrams. The curves for the dependence of the specific surface,

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SOV/156 89-3-2/52

Investigations on the Caking of Platinum Black by the Method of Charge

the capacity for adsorbing hydrogen and oxygen vs. the temperature of caking are practically the same (Diagram 1); a common formula can be written. The cathodic charge curves for the original platinum black as well as for that caked at various temperatures are given in diagram 2. Diagram 3 gives the dependence of the specific activity on the temperature of caking. The experiments show that hydrogen is not adsorbed at the defect places but at definite places in the crystal lattice. New active centers are formed by the entrance of oxygen into the crystal lattice; thus the higher activity in the reaction of the decomposition of hydrogen peroxide following the thermal treatment of the catalyst is explained. There are 3 figures, 1 table, and 9 references, 8 of which are Soviet.

ASSOCIATION:

Kafedra Elektrokhimii Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Electrochemistry of Moscow State University imeni M. V. Lomonosov)

Card 2/3

5(4)

SOV/76-32-11-4/32

AUTHORS:

Tyurin, Yu. M., Shlygin A. I.

TITLE:

Employing Electrochemical Methods for the Investigation of Disperse Catalysts and Adsorbents (Primeneniye elektrokhimicheskikh metodov k issledovaniyu dispersnykh katalizatorov i adsorbentov) I. On the Charge Curves of Platinum Black (I. O krivyykh zaryazheniya platinovoy cherni)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 11, pp 2487-2491 (USSR)

ABSTRACT:

The applicability and reliability of the method of the charge curve (Refs 1,2) for the investigations mentioned in the title are studied. As the production of charge curves according to the Pt-netting method (Refs 2,3) causes a loss of the sample during the experiment, the authors employed the "method of collision". A platinized Pt electrode was used as it has a larger surface and a lower polarizability. The experiments were carried out in a cell (Diagram) filled with hydrogen saturated 1 N H₂SO₄ or 1 N HCl, which was shaken (600-1200 times/minute, amplitude 2-7 cm). Three samples of platinum black were investigated. Nr 1 heated at 100°C in vacuum (10⁻³

Card 1/2

SOV/76-32 11-4/32

Employing Electrochemical Methods for the Investigation of Disperse Catalysts and Adsorbents. I. On the Charge Curves of Platinum Black

Atm), Nr 2 heated in air at 135^o, and Nr 3 dried at room temperature. The experiments could only be carried out at potentials of from +0.1 to + 1.35 Volt, as outside this interval polarization effects may be formed which are explained by a diffusion of molecular oxygen from the platinum surface into the solution (analogous observation Ref 8). The obtained curves differ little from each other and can be used for the determinations of the adsorbed hydrogen and of the actual surface of the platinum black. Comparisons with data given in publications were made, and the values were found to agree, for instance, with those by Benton (Ref 7). There are 4 figures, 1 table, and 8 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: April 9, 1957

Card 2/2

5(4),5(2)

AUTHOR:

Tyurin, Yu. M.

SOV/20-126-4-38/62

TITLE:

Charging Curves for Rhodium Black (O krivyykh zaryazheniya rodiyevoy cherni)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 827-830 (USSR)

ABSTRACT:

For the plotting of charging curves the author applied a method described in publications (Ref 2). The preparation was formed from an alkaline solution of RhCl_3 by precipitation with formaldehyde (Ref 3). The anode curves of the charge of rhodium black are compared with those of rhodium-plated platinum (according to Ref 1) in figure 1. Both curves are very similar to each other in various investigated media (1 n HBr, HCl, H_2SO_4 , KOH) which leads to the conclusion that there is a similarity between the surface properties of rhodium black and rhodium-plated platinum. The curves recorded in acid medium may be divided into three sections: a hydrogen section, a two-layer section, and an oxygen section. The curves recorded in alkaline medium show a continuous transition of the hydrogen section into the oxygen section. With

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Charging Curves for Rhodium Black

SOV/20-126-4-38/62

respect to the hydrogen section, the charging process of rhodium black is reversible, thus indicating an approximate equivalence of the states to which the preparation is subjected when plotting the charging curves. Concerning the oxidation of the surface, this reversibility is lost and hysteresis occurs between the anode- and cathode charging curve the loop of which is all the larger the more positive the potential is at which the charge of the cathode initiates. The bond energy of the hydrogen adsorbed on rhodium depends on the nature of the electrolyte and decreases in the series KOH, H_2SO_4 , HCl, HBr such as is the case with platinized platinum. The stability of the binding of hydrogen to the surface of rhodium is somewhat smaller than the binding of hydrogen to platinum; the oxidation of rhodium begins at less positive potential values than that of platinum. The author also investigated the influence exercised by the pH-value of the solution and the surface active anions Cl^- , Br^- , and J^- on the surface properties of rhodium black. These investigations are discussed in detail in the present paper; the results are given in figures 3 and 4. The presence of chlorine- and bromide ions in the solution shortens the length of the hydrogen section of the

Card 2/3

Charging Curves for Rhodium Black

SOV/20-126-4-38/62

charging curves. With increasing concentration of the surface-active anion this effect increases. These rules are analogous to those found already earlier for platinized platinum (Ref 8). With increasing pH-value of the electrolyte the bond energy of the adsorbed hydrogen increases while the length of the hydrogen section of the charging curve for rhodium slightly decreases. The distinctly marked influence of the pH-value in acid solutions (pF 0.7-4.2) was discovered by the author for the first time. The measured quantities of adsorbed iodine ions with respect to 1 g of rhodium black are compiled in a table. The author thanks Professor A. I. Shlygin for organizing the investigations described. There are 4 figures, 1 table, and 13 references, 12 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: February 24, 1959, by A. N. Frumkin, Academician

SUBMITTED: February 9, 1959
Card 3/3

TUR'YAN, Ya.I., TYURIE, Yu.M., ZAYTSEV, P.M., KARAVAYEVA, Ye.A.

Polarographic analysis of nitrocyclohexane. Zav.lab. 26 no.7:
810-813 '60. (MIRA 13:7)

1. Lisichanskiy filial Gosudarstvennogo nauchno-issledovatel'-
skogo i proyektrnogo instituta azotnoy promyshlennosti i
produktov organicheskogo sinteza.
(Cyclohexane) (Polarography)

S/020/60/134/004/016/023
B016/B060AUTHORS: Tur'yan, Ya. I., Tyurin, Yu. M., and Zaytsev, P. M.TITLE: Polarographic Study of Nitro-aci Tautomerism of Nitro-
cyclohexane ↑PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4,
pp. 850 - 852

TEXT: The polarographic method devised by the authors (Ref. 1) for analyzing nitro-cyclohexane (NCH) has made it possible to study the kinetics and the equilibrium of the nitro-aci-tautomeric transformation of NCH. The nitro-form of NCH constitutes a distinct wave in a wide pH range; the aci-form cannot be reduced on a mercury-dropping electrode. The authors dissolved NCH (~0.01 M) in water or alkali, depending on the direction in which the reaction was considered. Citric acid phosphate- as well as borax alkali buffer mixtures served as background. The concentration of the nitro-form of NCH was recorded on the electron polarograph (D-312 PE-312). The nitro-aci-(N→A) transformation was studied in the range between pH 8 and 12, while the reverse reaction was studied at pH 3-9.5. The experiment

Card 1/3

Polarographic Study of Nitro-aci Tautomerism
of Nitro-cyclohexane

S/020/60/134/004/016/023
B016/B060

was performed at 25, 32, 40, and 50°C. Fig. 1 illustrates the dependence of the ratio C_{∞}/C_0 on the pH value at 25°C, where C_0 is the initial concentration of NCH in the nitro- or aci-form and C_{∞} the concentration of the NCH

nitro-form after the reaction is over. As may be seen, the nitro-form is completely transformed into the aci-form at $\text{pH} > 9.5$. At $\text{pH} 4.5 - 7.0$, a complete transformation of the aci-form into the nitro-form is possible. The equilibrium appearing at $\text{pH} 7.0 - 9.5$ can be attained from both sides. Table 1 gives the values of K_N (experimental rate constant of reaction

$N \rightarrow A$ at $\text{pH} = \text{const}$) and of K_A (the same for reaction $A \rightarrow N$). The function $\log K_N = f(\text{pH})$ is linear (Fig. 3), while $\log K_A = f(\text{pH})$ at $\text{pH} \approx 5$ passes

through a maximum (Fig. 4). A reaction scheme (3) is given for the acid-alkaline catalysis of the nitro-aci-tautomeric transformation (Ref. 6). This reaction mechanism permits the derivation of kinetic equations which fit those obtained in the experimental way (1) and (2) at the following

values of constants (25°C): $K_0 = 50 (\text{mole/l})^{-1} \cdot \text{min}^{-1}$, $K_0' = 2.8 \cdot 10^5 (\text{mole/l})^{-1} \cdot \text{min}^{-1}$, $K'' = 0.11 \text{ min}^{-1}$, $K_1 = 4.3 \cdot 10^{-7}$, and $K_2 = 2.3 \cdot 10^{-4}$.

Card 2/3

Polarographic Study of Nitro-aci Tautomerism . S/020/60/134/004/016/023
of Nitro-cyclohexane B016/B060

Experimental data are compared with calculated ones in Fig. 4. The protoni-
zed complex $[C_6H_{10}:NO_2H]H^+$ appears in the limiting stage of the Nef
reaction (at $pH < 4.5$). Since at $pH \gg 9.7$ the isomerization reaction of NCH
is catalyzed by hydroxyl ions, and at $pH < 7$ this is done by hydrogen ions,
the equilibrium constant cannot be calculated from the ratio K'_o/K_o .

Instead, this constant was calculated by means of an equation shown here.
Table 2 shows good agreement for $K_{equation}$ when establishing the equilibri-
um from both sides. Activation energies are finally calculated. There are
4 figures, 2 tables, and 7 references: 4 Soviet, 2 US, and 1 French. ✓

ASSOCIATION: Lisichanskiy filial Gosudarstvennogo instituta azotnoy
promyshlennosti i produktov organicheskogo sinteza
(Lisichansk Branch of the State Institute of the Nitrogen
Industry and of Products of Organic Synthesis)

PRESENTED: May 16, 1960, by A. N. Frumkin, Academician

SUBMITTED: March 12, 1960

Card 3/3

ZOLOTAREV, N.V., kand.tekhn.nauk; VYSOTSKIY, L.I., kand.tekhn.nauk; TYURIN,
Yu.M., inzh.; TSOY, R.I., kand.tekhn.nauk

Hydraulic calculation and selection of an efficient design of
sand classifiers for grinding industrial glass. Stek. i ker. 21
no.12:7-9 D '64. (MIRA 18:3)

1. Saratovskiy politekhnicheskii institut (for Zolotarev, Vysotskiy).
2. Saratovskiy filial Instituta stekla (for Tyurin, Tsoy).

TYURIN, Yu.M.; TSIBILEVSKAYA, A.M.

Chemisorption of hydrogen at the metal-solution interface as
dependent on the pH of the solution. Dokl. AN SSSR 159 no.5:
1140-1143 D '64 (MIRA 18:1)

1. Gor'kovskiy politekhnicheskii institut im. A.A. Zhdanova.
Predstavleno akademikom A.N. Frumkinym.

KOVSMAN, Ye.P.; TYURIN, Yu.M.; KARAVAYEVA, Ye.A.; Prinimali uchastiye: BELOUS,
A.B.; TSYBULEVSKAYA, A.M.

Anodic dissolution of some noble metals in organic media. Zhur.prikl.khim.
37 no.1:217-218 Ja '64. (MIRA 17:2)

1. Lisichanskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti.

TUR'YAN, Ya. I.; TYURIN, Yu.M.; ZHANTALAY, B.P.

Polarographic determination of caprolactam and amino acids,
the intermediate products of synthetic fibers. Zhur.anal.
khim. 16 no.3:352-358 My-Je '61. (MIRA 14:6)

1. State Scientific Research and Designing Institute of Nitrogen
Industry, Lisichansk Branch.

(Azepinone)
(Amino acids)
(Polarography)

GA 112

The diastatic activity of grain of different varieties of grain plants. A. Tyulina and O. Vukolikova. *Uchenye Zapiski Saratov. Gosudarst. Univ. N. G. Chernyshevskogo, Sbornik Nauchnykh Rabot Studentov* 1939, No. 2, 41-4.

The diastatic activities of spring wheat *Erythrospermum* 6841 (1), *Lyutescens* 092 (2), *Tserium* 0111 (3) and *Mil'turum* 274 (4), of winter wheat *Lyutescens* 0120 (5) and of winter rye, *Elisevskaya* (6) were detd. by detg. the amt. of the reducing sugar (maltose), which is formed from the action of diastase, present in the flour. $K_1Fe(CN)_6$ was used for detg. maltose. The results were corrected for the "natural" sugars in the flour, not formed from the action of diastase. The true diastatic activities of 1, 2, 3, 4, 5 and 6 were, resp.: 69.4, 51.8, 10.4, 51.0, 125.6 and 70.0. The diastatic activities of the winter wheat and rye are higher than those of the spring varieties. This explains their preference in bread baking. Two references.

W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS

COMMON VARIANTS INDEX

MATERIALS INDEX

GROUPS

3RD AND 4TH LETTERS

2ND LETTER

1ST AND 2ND LETTERS

ALPHABETIC INDEX

TYURIN, Yu.M.; FEOKTISTOV, L.G.

Role of adsorbed oxygen in the process of thermal activation and
deactivation of platinum black. *Kin.i kat.* 4 no.2:221-229 *Mt.-Ap* '63.
(MIRA 1615)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova
i Lisichanskiy filial Gosudarstvennogo proyektirovogo i nauchno-issle-
dovatel'skogo instituta azotnoy promyshlennosti.
(Platinum catalysts) (Oxygen) (Adsorption)

TYURIN, Yu.M., VESELOVA, M.V.; KURATOVA, V.A.; KOVSHAN, Ye.P.;
BELOUS, A.P.

Electrolysis of monomethyl ester of adipic acid in methanol
solution. Zhur.prinkl.khim. 35 no.5:1082-1092 My '62. (MIRA 15:6)

1. Lisichanskiy filial Gosudarstvennogo instituta azotnoy
promyshlennosti.

(Adipic acid)

(Electrolysis)

AKSENOVA, E.B.; TYURIN, Yu.M.

Tempering thin glass. Stek.i ker. 19 no.5:10-12 My '62. (MIRA 15:5)
(Glass manufacture)

REMPER', S. I.; TYURIN, Yu. N.; ZINNER, V. A.; DUNAYEVSKAYA, L. A.

Control of the process of preparing metallic potassium by the intensity of radioactive radiation. Zav. lab. 28 no.12:1474-1475 '62. (MIRA 16:1)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut.

(Potassium—Production control)
(Potassium—Isotopes)

TYURIN, Yu.N.

Effect of ultrasound on decomposition of super saturated
solutions of aluminum fluoride. Zhur. prikl. khim. 38
no.5:1126-1129 My '65. (MIRA 18:11)

TYURIN, Yu.N.; KALITINA, L.N.; OLERT, L.G.

Effect of ultrasound on the growth of aluminum hydroxide
crystals. Zhur. prikl. khim. 37 no.2:453-457 F '64.
(MIRA 17:9)

ANDRYUSHIN, Yu.N.; VYRENKOV, Yu.Ye.; SEMEJNA, N.A.; TYURINA, A.A.

Data on the connections of the lymphatic system of organs in
the lymph nodes of the neck. Arkh. anat., gist. i embr. 42
no.5:89 My '62. (MIRA 15:6)

1. Kafedra normal'noy anatomii (zav. - prof. Ye.Ya. Vyrenkov)
Ivanovskogo meditsinskogo instituta. Adres avtorov: Ivanovo,
Meditsinskiy institut, kafedra normal'noy anatomii.
(LYMPHATICS)
(NECK)

TYURINA, A.A., dotsent

Mechanism of the antispasmodic action of hexamidine. Sbor. trud.
Kursk. gos. med. inst. no.13:402-406 '58. (MIRA 14:3)

1. Iz kafedr farmakologii 2 Moskovskogo gosudarstvennogo meditsin-
skogo instituta imeni N.I.Pirogova (zav. - prof. V.V.Vasil'yeva)
i Kurskogo medinstituta (zav. - dotsent A.A.Tyurina).
(BENZAMIDINE) (ANTICONVULSANTS)

TYURINA, A.A., dotsent

Mechanism of the action of luminal on the central nervous system.
Report No.2. Sbor. trud. Kursk. gos. med. inst. no.13:407-410 '58.
(MIRA 14:3)

1. Iz kafedr farmakologii 2 Moskovskogo gosudarstvennogo meditsin-
skogo instituta imeni N.I.Pirogova (zav. - prof. V.V.Vasil'yeva)
i Kurskogo medinstituta (zav. - dotsent A.A.Tyurina).
(PHENOBARBITAL) (NERVOUS SYSTEM)

TYURINA, A.A. (Ivanovo (obl.), prospekt Stalina, 70, kv.9)

Use of BF-2 glue for preparation of corrosive preparations of the lymphatic vessels. Arkh.anat.gist.1 embr. 39 no.9:115-116 S '60.

(MIRA 14:1)

1. Kafedra normal'nit anatomii (zav. - prof. Ye.Ya. Vyrenkov)
Ivanovskogo meditsinskogo instituta.

(LYMPHATICS)

(ANATOMICAL SPECIMENS—COLLECTION AND PRESERVATION)

SIVYAKOV, A.A.; TYURINA, A.A.; ANDRYUSHIN, Yu.N.

Case of total transposition of the great vessels with severe hypoplasia of the aortic arch. *Pediatrics* 37 no.7:81-82 J1 '59. (MIRA 12:10)

1. Iz patologoanatomicheskogo otdeleniya 4-y gorodskoy bol'nitsy g.Ivanovo (glavnyy vrach I.A.Kurbatova).

(CARDIOVASCULAR DEFECTS, CONGENITAL, case reports, total transposition of great vessels with aortic arch hypoplasia (Rus))

USSR / Human and Animal Morphology - Lymphatic System. S

Abs Jour : Ref. Zhur. - Biol., No. 22, 1958, No. 101487

Author : Tyurina, A. A.

Inst : Ivanov Medical Institute

Title : The Connections of the Lymphatic System of the Lungs and Pharynx in Children.

Orig Pub : Sb. nauchn. tr. Ivanovsk. med. in-ta, 1957, No. 12, 319-324

Abstract : In 20 cadavers of children under one year of age and of fetuses 6-8 months of age, the interstitial polychrome injection method revealed that the lymphatic systems of the lungs and pharynx are closely inter-connected. The connections are made either in the common lower jugular lymph nodes, or in the jugular lymphatic trunks. Connections of the lymph systems of the pharynx and the right lung

Card 1/2

USSR / Human and Animal Morphology - Lymphatic System. S

Abs Jour : Ref. Zhur. - Biol., No. 22, 1958, No. 101487

are noted more frequently (in ten cases out of 11)
than connections of the pharynx and the left lung
(7 cases.)

Card 2/2

35

SIVYAKOV, A.A.; TYURINA, A.A. (Ivanovo (obl.) pr. Stalina, d.70, kv.9);
ANDRYUSHIN, Yu.N.

Strangulated hernia in ectopia vesicae. Vest.khir. no.5:137-139
'61. (MIRA 15:1)

1. Iz patologoanatomicheskogo otdeleniya detskoy infektsionnoy
bol'nitsy No.3 (gl. vrach - O.I. Lebedeva) g. Ivanova.
(BLADDER--HERNIA) (BLADDER--DISPLACEMENT)

U.S.S.R./Pharmacology. Toxicology. Antispasmodic Drugs. V-3.

Abs Jour : Ref Zhur-Biol., No 6, 1958, 28036.

Author : Tyurina A. A.

Inst : Not given.

Title : Effect of Antispasmodic Drugs (Bromine Salts and Nembutal) on the Processes of Stimulation and Inhibition of the Central Nervous System.

Orig Pub : Tr. Vses. o-va fiziol., biokhim. i farmakologov, 1956, 3, 125-127.

Abstract : A single rectal administration of 80-150 mg/kg of potassium bromide raised the threshold of the spasmodic effect (SE) of an electric current in rabbits by 5-10v and weakened the clonic phase of the spasmodic attack. The administration of potassium bromide in doses of 80-250 mg/ kg in 24 hours

Card 1/2

TYURINA, A. A. Dr. Med Sci -- (diss) "The effect of a number of antispasmodic agents on changes in the spastic threshold and the bioelectrical activity of the cerebral cortex and subcortical nucleus of the brain of rabbits (Experimental research)," Moscow, 1960, 23 pp, 300 cop. (2nd Moscow State Medical Institute im N. I. Pirogov) (KL, 45-60, 128)

TYURINA, A.A.

Effect of antispasmodics (bromides and luminal) on excitation and inhibition processes in the central nervous system. Report No.1.

Trudy Vses. ob-va fiziol., biokhim. i farm. 3:125-127 '56

(MLRA 10:4)

1. Kafedra farmakologii Kurskogo meditsinskogo instituta;
zaveduyushchiy kafedroy dotsent A.A. Tyurina. Kursk.
(ANTISPASMODICS) (INHIBITION)(NERVOUS SYSTEM)

TYURINA, A.A.

Changes in electrical potentials of the cortex and subcortical formations of the brain in rabbits under the influence of hexamidine during electrical convulsions. Farm.i toks. 23 no.1:3-7 Ja-F '60. (MIRA 14:3)

1. Kafedra farmakologii II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova (zav. - prof. V.V. Vasil'yeva) i kafedry farmakologii Kurskogo meditsinskogo instituta (zav. - dotsent A.A.Tyurina).
(PYRIMIDINE) (BRAIN) (CONVULSIONS)

TYURINA, A. M.

Chemistry - Study and Teaching

Practices of the methodological board of physics and chemistry teachers. Khim. v shkole no. 2, 1952.

Monthly List of Russian Accessions Library of Congress November 1952 UNCLASSIFIED

TYURINA, A.M.

How to organize and conduct chemical olympiad. Khim. v shkole
13 no.4:55-58 JI-Ag '58. (MIRA 11:6)
(Chemistry--Competitions)

TYURINA, A. M. (Moskva)

Preparation of chemistry homework in boarding schools. Khim. v
shkole 15 no.4:52-57 J1-Ag '60. (MIRA 13:9)
(Chemistry--Study and teaching)

TYURINA, A. M.

Chemistry - Study and Teaching

Practices of the methodological board of physics and chemistry teachers. Khim.
v shkole no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November ¹⁹⁵² ~~1953~~, Uncl.

TYURINA, A. M.

Physics - Study and Teaching

Practices of the methodological board of physics and chemistry teachers. Khim. v shkole No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

TYURINA, A. M.

Physics - Study and Teaching

Practices of the methodological board of physics and chemistry teachers.
Khim. v. shkole No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November ¹⁹⁵² ~~XXXX~~, Uncl.

USENKO, Vladimir Andreyevich, doktor tekhn. nauk, prof.;
USHAKOVA, Kapitalina Nikolayevna, kand. tekhn. nauk;
BACHUKINA, Faina Fedorovna, inzh.; NITISHINSKAYA, A.I.,
retsenzent; TYURINA, A.Z., red.

[Processing of acetate fibers] Pererabotka atsetatnogo
volokna. Moskva, Gizlegprom, 1964. 169 p. (MIRA 17:5)

DYKHANOVA, A.G., starshiy nauchnyy sotr.; TYURINA, A.Z., red.;
BRATISHKO, L.V., tekhn. red.

[Experience in the operation of shuttleless looms] Opyt raboty na beschelnykh tkatskikh stankakh; materialy. Moskva, TSentr.in-t nauchno-tekhn.informatsii legkoi promyshl., 1962. 27 p. (MIRA 16:4)

1. Vsesoyuznyy nauchno-tekhnicheskii seminar rabotnikov tkatskogo proizvodstva, 1961.
(Looms)

TARASOV, S.V.; SAL'MAN, S.I.; SHAROV, I.A., red.; TYURINA, A.Z., red.;
BRATISHKO, L.V., tekhn. red.

[Catalog-handbook of flax and hemp-and-jute processing equip-
ment; spinning machinery]Katalog-spravochnik l'nianogo i pen'ko-
dzhutovogo oborudovaniia; mashiny priadil'nogo proizvodstva. Mo-
skva, 1962. 179 p. (MIRA 16:3)

1. TSentral'nyy institut nauchno-tekhnicheskoy informatsii leg-
koy promyshlennosti. 2. Rukovoditel' pryadil'noy laboratorii
TSentral'nogo nauchno-issledovatel'skogo instituta promyshlen-
nosti lubyanykh volokn (for Tarasov). 3. Nachal'nik tekhnicheskogo
otdela Vses. nauchno-issledovatel'skogo instituta legkogo i
tekstil'nogo mashinostroyeniya (for Sal'man).
(Spinning machinery)

cll

15

The composition of the humus in fossil soils. I. V. Tyurin and R. I. Tyurina. *Phylogeny* (U. S. S. R.) 1940. No. 2/10 21th German. 21-29. Fossil soils of the base horizon of the forest prairie in Russia were investigated and compared with the present-day soils. Their humus compn. is little known at present, but a better understanding of these soils is important for the development of humus chemistry. A gradual decompn. of humus was taking place in these soils, which explains the content of the former in fossil soils. Contrary to the views of I. D. Sedletskii, who believes the chief constituent of fossil humus to be humins, F and F find humic acids to predominate, with humins next and fulvic acids following them. The sum of these compn. averages 80-90% of all humus present. Humins, substances sol. during decalcification and those hydrolyzable in 10% H₂SO₄, make up the remaining 10%. Of these the first 2 fractions occur in the same comen. as they do in the present-day humus of the forest-prairie soils in Russia. The degradation of the humus in fossil soils of the base type proceeds in such a way as to make its compn. similar to the *black earth* humus of today. The degradation of humus in the fossil black earth proceeds in such a way that there is no visible change in the humus compn. This is possible if all fractions of the humus decompose with equal speed, or, if the mineralization process of one fraction is compensated for by re-building of its constituents from the incomplete decompn.

products of other fractions. The hydrolyzable substances are the only fraction which decomposes quicker than in modern soils, leading to relatively high comen. of humic acids and humins in fossil soil. In the degradation of the podzol fossil soils, which originally were rich in hydrolyzable substances, while poor in humic acids, the compn. of humus changes considerably, becoming richer in the latter. The main fractions of humus: humic acids, humins and fulvic acids, have in the fossil soils the same properties as those from modern soils, except that the humins are richer in nitrogen and the humic acids are more oxidized since they contain less H and the same amt. of O as the ones from present-day soils. On the contrary, the hydrolyzable substances reduce Fehling soln. less than those in the modern humus (i. e., contain less O). The resemblance of fossil humus to the black earth of today leads to the conclusion that the latter is in a rather stable condition since its fractional compn. is more or less permanent. Evidently it decomposes and is again rebuilt as one whole, and this correlation between the constituents is important for the complete understanding of the processes taking place in the humus of today.

C. S. Shapiro

AGRICULTURE - METALLURGICAL LITERATURE CLASSIFICATION

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Significance of the age, sex and weight of horses, used for the
obtaining of anti-tetanus serum. *282*

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Experience in biogeochemical studying of a section of a complex
metal deposit in central Kazakhstan. Mat.po geol.i pol.iskop.
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TYURINA, G.N.

Deformation of complex structures of algebraic manifolds. Dokl.
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MANIN, Yu.I.; MOYSHEZON, B.G.; TYURINA, G.N.; TYURIN, A.N.;
PETROVSKIY, I.G., akademik, otv. red.; NIKOL'SKIY, S.M., prof.,
zamestitel' otv. red.

[Algebraic surfaces.] Algebraicheskie poverkhnosti. Moskva.
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(MIRA 18:5)

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S/020/60/132/01/12/064

16.5500

AUTHOR: Tyurina, G.N.TITLE: Cohomologies of Complex Homogeneous Manifolds 16

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 1, pp. 52-55

TEXT: Let X be a homogeneous simply connected compact complex manifold.Let $H^k(X, C)$ denote the cohomology groups of the space X with coefficients of the field of complex numbers C . Let

$H^q(X, \Omega^p)$ or $H^{p,q}(X)$ denote the cohomology group of the space X with coefficients in the bundle Ω^p of the germs of the holomorphic p - forms on X ; let $H^n(X) = \sum_{p,q} H^{p,q}(X)$.

To every non-Kählerian homogeneous manifold a certain Kählerian manifold Y can be adjoined uniquely. Here there exists a fibering $X \rightarrow Y$ the fibre of which is the $2n$ -dimensional torus T^{2n} . The author's principal result is the assertion that $H^n(X)$ as a bigraduated space is isomorphic to the homology group of the algebra $H^*(Y, C) \otimes H^*(T^{2n}, C)$ with a certain differential and a certain bigraduation. On the manifold X of the considered type there exists a transitive semisimple complex group G with the maximal compact

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Cohomologies of Complex Homogeneous Manifolds S/020/60/132/01/12/064

subgroup M , where $X = G/U = M/V$; $V = M \cap U$.

The author thanks A.L. Onishchik for the leading of the work.

There are 5 non-Soviet references : 4 American and 1 French.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova
(Moscow State University imeni M.V. Lomonosov)

PRESENTED: December 30, 1959, by P.S. Aleksandrov, Academician

SUBMITTED: December 25, 1959

X

Card 2/2

AUERMAN, L.Ya.; RAKHMANKULOVA, R.G.; BAZULINA, E.F.; TYURINA, G.V.;
K HOLINA, L.S.

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Enzymatic splitting of ribonucleic acid separated from ribonuclease by a lipid membrane. Zhur. evol. biokhim. i fiziol. 1 no. 6:550-556 N-D '65 (MIRA 19:1)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva. Submitted May 24, 1965.

KATS, A.L.; TYURINA, K.L.

Circulation characteristics of the 1953/54 winter. Meteor. i gidrol.
no.1:25-29 Ja '56. (MIRA 9:6)
(Atmosphere)

KATS, A.L.; TYURINA, K.L.

Circulation characteristics of the 1953/54 winter. Meteor. i gidrol.
no.1:25-29 za '56. (MIRA 9:6)
(Atmosphere)

TYURINA, K. P.

Afforestation

Experiments of the Tomolovskii forestry service. Les i step' 4, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May ¹⁹⁵²~~1953~~, Uncl.

TYURINA, K. P.

Tree Planting

Experiments of the Tomolovskii forestry service; Les i step' 4 no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May ¹⁹⁵²~~1953~~, Uncl.

VELICHANSKIY, L.; TYURINA, L.

The working class of Greece continues the fight. Sov.profsoiuzy 1 no.
4:73-79 D '53. (MLRA 6:12)

(Greece--Trade-unions) (Trade-unions--Greece)

Country : USSR
Category : Diseases of Farm Animals. Diseases Caused by
Bacteria and Fungi
Abs. Jour. : Ref Zhur-Biol, No 23, 1958, No 105802
Author : Pal'gov, A. A.; Tyurina, L. A.
Institut. : Institute of Veterinary Medicine, Kazakh Affi-
Title : Vaccinoprophylaxis of Paratyphoid Abortion in
Mares

Orig. Pub. : Tr. In-ta vet. Kazakhsk. fil. VASKhNIL, 1957,
8, 210-217

Abstract : A phenol alum precipitated vaccine prepared by
the authors from virulent strains of Salmonella
abortus equi possesses agglutinin properties
and increases the resistance of horses to para-
typhoid infection. In a part of the vaccinated
horses (6-7%), postvaccinal complications were
observed in a form of aseptic depo-infiltrates

* Institute of the All-Union Academy of Agricultural
Sciences imeni Lenin

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170000, 4. 6.
USSR/Farm Animals. Horses.

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Abstr Jour: Ref Zhur-Biol., No 20, 1958, 92526.

Author : Tyurina, L.A.

Inst : Kazakh Affiliate of the All-Union Academy of Agricultural Sciences, in. V.I. Lenin.

Title : Some Physico-Morphological and Biochemical Indications in the Blood of New-Born Colts.

Orig Pub: Tr. In-ta vet. Kazakhsk. fil. VASKNIL, 1957, 8, 176-183.

Abstract: The blood of colts from mares of the Don breed which were grazing on pastures was investigated. The quantity of erythrocytes in the colt blood, taken before sucking, 5 to 10 minutes after birth, amounted to 9.56 to 10.230 billion and in their mothers 4.19 to

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USSR/Farm Animals. Horses.

Abs Jour: Ref Zhur-Biol., No 20, 1958, 92526.

5.35 mln. Hb amounted correspondingly to 112-115% in colts and 81-83% in mares, the quantity of leukocytes was 4.44 - 4.97 and 5.60 - 6.12 thousands respectively. On the 34th day the quantity of erythrocytes in colts was 10.120 to 10.540, and in the mares 6.21 to 6.38, Hb was 115-116% and 92 to 95%, the quantity of leukocytes was 6.544 - 8.222 and 6.444 - 7.140. The reserve alkalinity of the blood of colts and mares fluctuated between 450 and 520 mg %^o. During the first test the content of chlorides in the blood of colts was 9.5% lower than in their mothers, but subsequently this difference leveled off. During the first test the quantity of sugar in the blood of colts was 142-144 mg %^o, and in their mothers - 93 - 104 mg %^o. On the 34th day it was 118-120 and 71-84 mg %^o resp. Differences

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USSR/Farm Animals. Horses.

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Abstr Jour: Ref Zhur-Biol., No 20, 1958, 92526.

were noted in the content of total, deoxidized and oxidized glutathione in the blood and of calcium and lead in the serum of colts and mares. -- A.D. Musin.

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USSR/Farm Animals. Horses.

Q

Abs Jour: Ref Zhur-Biol., No 20, 1958, 92546.

Author : Tyurina, L.A.
Inst : Kazakh Scientific Research Veterinary Institute.
Title : Physico-Morphological and Biochemical Blood Indicators
in Pregnant Mares.

Orig Pub: Tr. Kazakhsk. n.-i. vet. inta., 1957, 9, 268-275.

Abstract: Investigation of blood changes during pregnancy was conducted during one year on 33 pregnant mares of the Don saddle breed, non-breeding mares served as controls. The erythrocyte count at the time of giving birth was lowered to 5.74 to 4.94 mln. The leukocyte count rose from the first month of pregnancy from 6994 to 7889 thousand. The erythrocyte sedimentation reac-

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