"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

LISZKA, Stanislaw; SOBOL, Ryszard

Apparatus for testing the durability and reliability of telecommutation components. Przegl elektroniki 5 no. 5:255-256 My '64.

1. Institute of Research and Studies in Telecommunication Engineering, Warsaw.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

LISZKA, Stanislaw, mgr inz.; SOBOL, Ryszard, mgr inz.

Apparatus for testing the durability and reliability of basic telecommunication components. Prace inst teletechn 8 no.3:122-125 '64.

1. Institute for Research and Studies in Telecommunication Engineering, Warsaw. Submitted July 13, 1964.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

CA

Separation of copper in a lead-copper matte. S. I. Sobol'. U.S.S.R. 65,095, Aug. 31, 1945. By treating a liquefied Pb-Cu matte with sulfides, the Cu is completely removed in one operation and favorable conditions are created for subsequent removal from the Pb such admixts as Au and Ag. M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

Sobol, S. I.

*Values of the Effective Ionic Radii of Elements in Melts and in Solids at High Temperature. S. I. Sobol'. (*Zhur. Priklad. Khim.*, 1951, 24, (7), 710–719.—(In Russian).

Published data on the coeff. of diffusion of a series of metals in molten metals and salts and on the viscosities of these melts have been used in conjunction with Einstein's equation $D = (RT/N) \cdot 1/(6\pi\eta r)$ to calculate the ionic radii of the diffusing metals (R_i). For a metal in one and the same melt, $R_i \propto$ temp., and values of the gradient $a = \Delta R_i/\Delta t$ are tabulated; the mean value of a was 0·00250 Å./°C. for alloys and 0·00303 Å./°C. for molten salts. The case of a for Mn and Si in molten Fe is discussed as an example, and it is shown that the coeff. of diffusion for Si must be greater than that for Mn, and not less, as found by Samarin and Shvartsman (*Zhur. Fiz. Khim.*, 1948, 22, 573; *Izvest. Akad. Nauk S.S.S.R.*, 1948, [Tekhn.], 1649; *ibid.*, 1949, 893). R_i for a given metal will vary with the nature of the melt; thus for Au at 500° C., $R_i = 0{\cdot}84$ in Pb, 0·90 in Sn, and 0·94 in Bi; similar variations are observed with Ag, Tl, and Sr in various salt melts. For a given metal, R_i will in general be different in two co-existent molten phases, e.g. metal/slag, metal/matte, &c. Data are tabulated to show that at 20° C., R_i for Zn or Cd in Hg increases with the concentration. Such a change in the value of R_i with concentration is to be expected from the change in geometry of the melt ions about the given ion, and will occur in particular when compound formation takes place, e.g. in the Co–Si system. The increase in R_i with temp. implies that the relative differences in size of all ions will decrease with rise in temp.; this explains the formation of solid soln. at high temp. in systems in which $\Delta R_i > 15\%$ at room temp., e.g. Ni–Tl, Fe–B, Al–Si, Au–Ni. The behaviour of substitutional solid soln. on cooling from a high temp. depends on the effect of the temp. change on the relation between the dimensions of the atoms or ions: if ΔR_i remains approx. const., then the substitutional soln. exists down to room temp. If R_i increases on cooling, it changes into an interstitial solid soln.—G. V. E. T.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', S. I.

Nickel

Magnitude of the normal potential of the couple Ni^{++}-$Ni(OH)_4$, and properties of nickel hydroperoxide. Zhur.fiz.khim., 16, No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

USSR/Chemistry - Nickel Compounds, Peroxides

Jun 52

"Value of the Normal Potential of the Pair Ni^{++}-$Ni(OH)_4$ and the Properties of Nickel Hydroperoxide," S.I. Sobol' "Gintsvetmet" (State Sci Res Inst of Nonferrous Metals) Moscow

"Zhur Fiz Khim" Vol XXVI, No 6, pp 862-865

On the basis of new thermodynamic and electrochem data published during the past 2-4 yrs, calcd the normal redox potential of the pair bivalent nickel - nickel peroxide. Obtained the value of -1.93 V

220T30

as compared with the -1.75 V computed by W.M. Latimer. Outlined a tentative mechanism for the decompn of nickel hydroperoxide and formation of a solid soln of $Ni(OH)_2$ in $Ni(OH)_4$.

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SOBOL, S. I.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
General and Physical Chemistry

Structure of precipitates of cobalt and nickel hydroxides. S. I. Sobol. *Zhur. Obshchei Khim.* 23, 901-8(1953).—Electron-microscopic and polariscopic studies reveal the absence of any cryst. structure in the $Co(OH)_2$ and $Ni(OH)_2$ ppts. formed independently of the rate of pptn., temp., and pH of the soln. Thirteen photographs. A. P. Kotloby

MF 11-5-54

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL, S.I.

Physical-chemical conditions of precipitation, heat of formation, and solubility product of cobalt hydroxide. S. I. Sobol. *Zhur. Obshchei Khim.* 23, 900-18(1953).—$Co(OH)_3$ was pptd. with Na hypochlorite (I) from aq. solns. of $CoSO_4$ and $CoCl_2$. Concn. of Co^{+++} and Cl^- and the pH of the soln. were measured during addn. of I until the equil. was reached. This required 1.5-2 hrs. for expts. conducted at 19.0° and 30-60 min. at 50-80°. The oxidation-reduction potentials of the soln. with pH below 3 decreased with the increase in Cl^- concn. and were independent of the pH and temp. of the soln. Increase of the equil. const. with an increase in the temp. confirmed the endothermic character of the reaction. Wt. ratio of $Co^{+++}:SO_4^{--}$ in the ppts. obtained at 80° varied in the range of 1:0.1 to 1:0.2. Therefore, most reliable thermodynamic values were secured from the chloride solns., because in them sorption of the anions was at a min. Considering this fact, the following values of the activity soly. product K_s were obtained for the $Co(OH)_3$: $K_s^{18°} = 3.2 \times 10^{-43}$, $K_s^{81°} = 3.2 \times 10^{-44}$. A. P. Kotloby

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
General and Physical Chemistry

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

Sobol, S.I.

USSR.

Structure of precipitates of cobalt and nickel hydroxides. S. I. Sobol. *J. Gen. Chem. U.S.S.R.* 23, 041-3, 1115(1953) (Engl. translation).—See *C.A.* 48, 3100d. H. L. H.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL, S.I.

USSR

Physical-chemical conditions of precipitation, heat of formation, and solubility product of cobalt hydroxide. S. I. Sobol. *J. Gen. Chem. U.S.S.R.* 23, 945-54(1953)(Engl. translation).—See *C.A.* 48, 3109*e*. H. L. H.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', S.I.; SPIRIDONOVA, V.I.

Possibility of using high pressures in the hydrometallurgical treatment of complex sulfide concentrates. TSvet.met. 28 no.3:26-30 My-Je '55. (MIRA 10:11)

1. Gintsvetmet.

(Ore dressing)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL, S. I.

High-pressure extraction of noble metals from concentrates. S. I. Sobol, V. I. Spiridonova, and Kh. A. Kurumchin. *Tsvetnye Metally* 1956, No. 4, 44-9.—Concentrates (100%, −54 μ) contg. Au 6.8–813 and Ag up to 1675/g. ton were leached with aq. NH_4OH in an autoclave with a partial pressure of O of 10–15 atm. and a total pressure of 30–35 atm. The O was added continuously and the leaching continued until the theoretical amt. of O required for the oxidation of the sulfide and such elements as Fe, As, Sb, Se, etc., was absorbed. At 180° complete oxidation of a concentrate contg. 18% S required 2 hrs. The concn. of Au in the soln. was within 3–84 mg./l. and Ag from 100 to 780 mg./l. yet as much as 4–12 g. Au per ton remained in the solid residue requiring a 2nd-stage treatment. The metals were removed from the soln. by adsorption on sulfocarbons which were burnt rather than regenerated. J. Benedowitz

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Sobol', S. I.

5
2

Distr: 4E2c/4E4j

Distillation of antimony from low-grade sulfide-oxide ores. G. Yu. Lelzarovich, I. V. Babina, and S. I. Sobol'. U.S.S.R. 107,290, Sept. 25, 1957. Sb is distd. off in a bubbling layer at 900–1050° in a neutral or weakly reducing medium.

M. Hosch

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', S.I.

Guard for the Efremenko steam-heated deep-fat fryer. Kons.i ov.prom. 12 no.9:19 S '57. (MLRA 10:10)

1. Rostovskiy konservnyy zavod "Smychka."
(Canning and preserving--Equipment and supplies)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

137-1958-3-4903

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 64 (USSR)

AUTHORS: Sobol', S. I., Spiridonova, V. I.

TITLE: Separation of Zinc and Ammonium Sulfate in Ammonia Solutions (Razdeleniye tsinka i sul'fata ammoniya v ammiachnykh rastvorakh)

PERIODICAL: Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met., 1957, Nr 13, pp 89-101

ABSTRACT: Two methods of separating Zn and ammonium sulfates from ammonia solutions were investigated: the method of distillation, in which Zn is obtained in the form of a basic sulfate, and the method of carbonization under pressure in which Zn is obtained in the form of a carbonate. The second method exhibits higher production indices. A temperature of 20-25°, and a CO_2 pressure of 3-5 at, were found to be the optimum conditions for the carbonization of Zn solutions by CO_2 in an autoclave. If accompanied by vigorous mechanical agitation of the solution, the process is completed within 3-5 minutes, with 96-98 percent of Zn extracted into the precipitate. The precipitate of

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

137-58-5-8873

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 18 (USSR)

AUTHORS: Sobol', S. I., Spiridonova, V. I.

TITLE: A Study of the Mechanism and Kinetics of the Reduction of Copper from Ammoniacal Solutions Under Hydrogen Pressure (Izucheniye mekhanizma i kinetiki vosstanovleniya medi iz ammiachnykh rastvorov pod davleniyem vodoroda)

PERIODICAL: Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met., 1957, Nr 13, pp 102-114

ABSTRACT: Synthetic ammoniacal solutions of aminosulfate of Cu were employed in order to determine how the rate of reduction of Cu by hydrogen in an autoclave is influenced by temperature, partial pressure of H_2, intensity of stirring, and the presence of catalysts and extraneous salts. A quantitative relationship was established between these factors and the rate of reduction of Cu. The order of the reduction reaction is determined and the mechanism of the process is discussed. It is established that the partial and total pressure of H_2 and, to some extent, the temperature can be reduced by increasing the amount of powdered Cu per unit volume of the solution. L. P.

Card 1/1

1. Copper--Reduction 2. Hydrogen--Applications 3. Catalysts--Effectiveness

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

137-58-5-9316

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 75 (USSR)

AUTHOR: Sobol', S. I.

TITLE: Conditions for the Reduction of Lead From Lead Compounds in Aqueous Media by Means of Hydrogen Under Pressure (Usloviya vosstanovleniya svintsa iz yego soyedineniy v vodnykh sredakh vodorodom pod davleniyem)

PERIODICAL: Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met., 1957, Nr 13, pp 115-122

ABSTRACT: A presentation of the results of experiments undertaken to determine more specifically the conditions required for the displacement of Pb from its various compounds in aqueous media by means of hydrogen under pressure. The experiments were conducted in a rotary autoclave made of stainless steel and having a capacity of 0.8 liter. PbO, $PbCO_3$, and $PbSO_4$ (chemically pure grade), as well as natural PbS, served as initial Pb-bearing materials. Among the fluid media water and aqueous solutions of $CaCl_2$ and NaOH were used.

1. Lead--Separation--Test results 2. Lead compounds --Processing 3. Autoclaves--Applications

O. B.

Card 1/1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

137-58-6-11499

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 35 (USSR)

AUTHORS: Veller, R.L., Sobol', S.I.

TITLE: Solubility in the Sb_2O_3-SO_3-H_2O System (Rastvorimost' v sisteme Sb_2O_3-SO_3-H_2O)

PERIODICAL. Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met., 1957, Nr 13, pp 123-128

ABSTRACT. A study is made of the solubility of Sb in the system Sb_2O_3-SO_3-H_2O at 24, 100, and 155°C. The isotherms of Sb solubility are given against the changing concentration of H_2SO_4 The presence at 24° of the acid and neutral antimonous sulfates was established, and of antimonous hydroxide at acidities of < 900 g/liter. At 100 and 155°, the neutral antimonous sulfate is anhydrous in the solid phase, and a number of basic sulfates form as acidity diminishes.

L.P.

1. Antimony oxide-sulfuroxide-water systems--Solvent action
2. Antimony--Solubility

Card 1/1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOV/137-58-7-14570

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 89 (USSR)

AUTHORS: Tseydler, A.A., Sobol', S.I.

TITLE: The State of Production Technology at the International Nickel Company (Sostoyaniye tekhnologii proizvodstva INKO)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 15, p 40

ABSTRACT: A brief communication on the development of INCO from 1918 to 1956. Note is taken of the use of a new process for treating Ni-bearing pyrrhotite, consisting of fluidized-solids roasting, the SO_2 being converted chiefly to elemental S; reduction with conversion of the bulk of the NiO to metallic Ni reoxidized by air in ammonium-carbonate solution; separation and distillation of the solution with the object of precipitating the Ni carbonate and regenerating the ammonia, and agglomeration of the solid residue for conversion to steel.

L.P.

1. Nickel industry--Development 2. Nickel--Processing

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

BERLIN, Z.L.; SOBOL', S.I.

Creation of industrial autoclave equipment. Biul. TSIIN tsvet. met. no. 6:19-22 '58. (MIRA 11:7)

(Ore dressing)
(Autoclaves)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

AZOS, S.; AREF'YEV, A.; ARTAMONOV, I.; BABINA, I.; BEREGOVSKIY, V.; BLOZHKO, V.; BRAVERMAN, A.; BYKHOVSKIY, Yu.; VINOGRADOVA, M.; GALANKINA, Ye.; GIL'DENGERSH, F.; GLOBA, T.; GREYVER, N.; GORDON, G.; GUL'DIN, I.; GULYAYEVA, Ye.; GUSHCHINA, I.; DAVYDOVSKAYA, Ye.; DAMSKAYA, G.; DERKACHEV, D.; YEVDOKIMOVA, A.; YEGUNOV, V.; ZABELYSHINSKIY, I.; ZAYDENBERG, B.; AZMOSHNIKOV, I.; ITKINA, S.; KARCHEVSKIY, V.; KLUSHIN, D.; KUVINOV, Ye.; KUZNETSOVA, G.; KURSHAKOV, I.; LAKERNIK, M.; LEYZEROVICH, G.; LISOVSKIY, D.; LOSKUTOV, F.; MALEVSKIY, Yu.; MASLYANITSKIY, I.; MAYANTS, A.; MILLER, L.; MITROFANOV, S.; MIKHAYLOV, A.; MYAKINENKOV, I.; NIKITINA, I.; NOVIN, R.; OGNEV, D.; OL'KHOV, N.; OSIPOVA, T.; OSTRONOV, M.; PAKHOMOVA, G.; PETKER, S.; PLAKSIN, I.; PLETENEVA, N.; POPOV, V.; PRESS, Yu.; PROKOF'YEVA, Ye.; PUCHKOV, S.; REZKOVA, F.; RUMYANTSEV, M.; SAKHAROV, I.; SOBOL', S.; SPIVAKOV, Ya.; STRIGIN, I.; SPIRIDONOVA, V.; TIMKO, Ya.; TITOV, S.; TROITSKIY, A.; TOLOKONNIKOV, K.; TROFIMOVA, A.; FEDOROV, V.; CHIZHIKOV, D.; SHEYN, Ya.; YUKHTANOV, D.

Roman Lazarevich Veller; an obituary. TSvet. met. 31 no.5:78-79 My '58. (MIRA 11:6)

(Veller, Roman Lazarevich, 1897-1958)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOV/136-59-2-8/24

AUTHOR: Sobol', S.I.

TITLE: Hydrometallurgy in Autoclaves in the Treatment of Copper-Nickel Ores (Ob avtoklavnoy gidrometallurgii v skheme peredela medno-nikelevykh rud)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 2, pp 34-40 (USSR)

ABSTRACT: The author criticises proposals recently made by Professor I.N.Maslenitskiy (Ref 1) for the use of autoclaves in existing procedures for the complex treatment of copper-nickel sulphide raw materials. He maintains that their adoption would not improve technical economic performance and examines an alternative flow-sheet (Fig 1). The aim in developing this was to improve the recovery of all valuable components while continuing to make use of installed expensive equipment and to reduce operating costs in enterprises in Arctic conditions. The author points out that work at the Gintsvetmet has tended to the use of autoclave methods for the treatment of intermediate products rather than raw materials because of failures of attempts with the latter in Soviet practice to obtain good recovery of all valuable components. With converter

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Hydrometallurgy in Autoclaves in the Treatment of Copper-Nickel Ores

mattes the presence of a considerable quantity of iron is advantageous (e.g. at the Severonikel' Combine the cobalt-content of anode nickel rose from 1.01 to 1.67% while the iron content rose from 1.6 to 2.45%) but copper/nickel separation by flotation of converter matte becomes more difficult and impracticable at the 5-7% Fe concentration which the author calculates should be left in the converter matte. Experiments made at the Gintsvetmet in 1957 on the treatment of ferruginous converter matte showed that the formation of metallic phase, which hinders autoclave leaching with oxygen under pressure, could be prevented by quenching the converter matte in water (Fig 2). With the flowsheet used (Fig 3) very rapid leaching was obtained at 130 to 140°C and 7 to 10 atm gauge total pressure. Treating granulated and ground (-48 micron) converter matte (37.5% Ni, 33.8% Cu, 0.43% Co, 5.3% Fe and 23.3% S) over 96% Ni and 90% Co were dissolved. The solution was practically free from iron, platinum and palladium and contained under 30 mg/litre Cu; the solid composition was

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Hydrometallurgy in Autoclaves in the Treatment of Copper-Nickel Ores

57.71% Cu; 2.44% Ni; 0.07% Co; 9.31% Fe; 20.0% S. The author considers that these favourable results from purely preliminary experiments make the proposals of Maslyanitskiy unnecessary. He points out that one of his own flowsheet variants provides nickel in a saleable form; cobalt is recovered by existing methods. This autoclave treatment requires only sulphuric acid, compressed air (or oxygen) and water, while that proposed by Maslenitskiy involves expensive reagents. In the copper part of the flowsheet the production of waste slags is avoided. There are 3 figures and 7 Soviet references.

ASSOCIATION: Gintsvetmet

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

TITLE: Conference on Autoclave Processes

PERIODICAL: Tsvetnyye metally, 1959, Nr 7, pp 84-87 (USSR)

ABSTRACT: On 23-26 February 1959 a conference was held in Moscow for summing-up and coordinating work on autoclave processes in the metallurgy of heavy, non-ferrous, rare and noble [illegible]. The conference heard reports as follows:

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D.M. Yukhtanov, Gintsvetmet, on progress throughout the world on the use of hydrometallurgical, particularly autoclave, methods for non-ferrous and rare metal production; G. N. Dobrokhotov, Gipronikel', on nickel leaching practice at some Soviet works; N. I. Onuchkina and G. N. Dobrokhotov on the thermodynamics and kinetics of the selective reduction by hydrogen and carbon monoxide under pressure of nickel and cobalt from solution; I. Yu. Leshch and K. M. Shelepova, Gipronikel', on design decisions on the application of the flowsheets dealt with by G. N. Dobrokhotov at the Yuzhuralnikel' and Severonikel Combines and the Ufaleyskiy (Ufa) Nickel Works; I. N. Maslenitskiy, Leningradskiy gornyy institut (Leningrad Mining Institute) on the advantages of a combined flotation-autoclave method for nickel-electrolysis of slimes containing platinum-group metals; V. B. Zhilkin, Severonikel' combine, and S. I. Sobol', Gintsvetmet, on the essentials of the neutral method of oxidizing leaching of nickel concentrate from converter-matte flotation; S. I. Sobol' on preliminary investigations on the development of a sulphurous-sulphuric method for leaching nickel and cobalt from oxidized nickel ores; N. N. Maslenitskiy, Mekhanobr, on the main results of investigations of the autoclave-soda

Card 2/5

process for treating tungsten-ore beneficiation products; V. I. Poprukaylo, Mekhanobr, and D. A. Malakhov, Skopinskaya (Skopinsk) TsOF, separately, on problems in the application of an autoclave-soda flowsheet to scheelite and wolframite raw material; G. A. Meyerson, K. Ya. Shapiro, N. N. Khavskiy, R. A. Pavlyuk and A. P. Nadol'skiy, Krasnoyarskiy institut tsvetnykh metallov (Krasnoyarsk Non-Ferrous Metals Institute) on the treatment of tungsten concentrates in hermetical, heated ball-mills with acids or caustic alkalies; V. I. Spiridonova, S. I. Sobol', Ye. I. Gulyayeva, Z. L. Berlin, I. M. Nelen' and B. I. Rudenko, Gintsvetmet, on the treatment of prepared and unprepared sulphide molybdenum raw material by oxidizing autoclave alkaline leaching; I. M. Nelen' and S. I. Sobol' on the kinetics of oxidizing autoclave leaching; A. N. Zelikman and Z. M. Lyapina, Krasnoyarsk Non-Ferrous Metals Institute, on the results of a study of conditions for the selective separation of lower oxides of tungsten and molybdenum from their salt solutions by hydrogen under pressure; M. V. Darbinyan, Gorno-

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metallurgicheskiy institut (Mining-Metallurgical Institute) of the Sovnarkhoz (economic council) of the Armyanskaya SSR (Armenian SSR), on his investigations of ammoniacal autoclave leaching under oxygen pressure of molybdenum concentrates; S. I. Sobol' on technical-economic factors of ammoniacal leaching; A. I. Sinel'nikova and I. N. Plaksin, Krasnoyarsk Non-Ferrous Metals Institute, on an oxidizing autoclave process for gold-containing raw material; N. G. Tyurin, Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute) on the behaviour of noble metals in oxidizing autoclave leaching in thiosulphate solutions; A. L. Tseft and D. A. Tarasklia and A. Yu. Dadabayev, Institut metallurgii i obogashcheniya AN Kaz SSR (Metallurgy and Beneficiation Institute of the AS Kaz SSR), respectively, on the physicochemical fundamentals and on works' trials of autoclave salt leaching of polymetallic materials; I. Yu. Leshch, Gipronikel', on the unsuitability of autoclave leaching for lime-containing materials; V. A. Bernshteyn, VAMI, on industrial experience of a continuous autoclave leaching process for bauxites; V. G. Tronev, IONKh AN

Card 4/5

SSSR (IONKh AS USSR), on compounds of some rare elements in various valency states under oxygen and hydrogen pressure in the presence of anhydrous ammonia; Z. L. Berlin, Gintsvetmet, on autoclave design and operation; P. G. Yakovlev, Gipronikel', and N. Ye. Vishnevskiy, VNII neftekhim, on model studies on autoclaves and the development of mixers; M. A. Polyanov, K. B. Giredmet, on the design of an experimental high-pressure pulp pump. G. L. Shvarts, NIIKhIMMASh, on the selection of steel for acid leaching of cobalt matte and matte-flotation concentrate; Yu. I. Archakov, VNIIneftekhim, on corrosion of types IKh18N9T, 12KhGN, 10KhSND and 10GND steels in soda and alkaline solutions in the presence of metal salts and oxygen at 5 - 15 kg/mm²; V. I. Deryabina and N. N. Kalgatin, VNIIneftekhim, separately on mechanical properties of hydrogen-affected steels. The conference made recommendations aimed at the extension and improve-

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

NELEN', I.M.; SOBOL', S.I.

Studying the kinetics of sphalerite oxidation in conditions of ammonia leaching under pressure of sulfide concentrates. Sbor. nauch. trud GINTSVETMET no.15:447-475 '59. (MIRA 14:4)
(Sulfides—Metallurgy)
(Leaching)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

NELEN', I.M.; SOBOL', S.I.

Oxygen solubility in ammonia solutions at high temperatures and pressures. Sbor. nauch. trud. GINTSVETMET no.15:476-480 '59. (MIRA 14:4)

(Leaching)
(Sulfides—Metallurgy)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/137/61/000/012/039/149
A006/A101

AUTHOR: Sobol', S.I.

TITLE: On the theory of calcium molybdate precipitation from sodium molybdate solutions containing sodium sulfate

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 21-22, abstract 12G155 ("Sb. tr. Gos. n.-i. in-t tsvetn. met", 1959, no. 15, 481-491)

TEXT: The author studied the nature of contamination of Ca molybdate precipitates ($CaMoO_4$) with sulfur. For this purpose solubility in the $CaMoO_4$-Na_2SO_4-H_2O system was investigated and compared with solubility in the system $CaSO_4$-Na_2SO_4-H_2O. The experimental data obtained indicate two possible causes of contamination of the $CaMoO_4$ precipitate with a sulfate-ion: 1) precipitation under corresponding conditions of $CaSO_4 \cdot 2H_2O$ or $CaSO_4 \cdot Na_2SO_4$ precipitates together with $CaMoO_4$; 2) isomorphic coprecipitation of $CaMoO_4$ and $CaSO_4$ with the formation of solid solutions of $CaSO_4$ in $CaMoO_4$. At any amount of Na_2SO_4 in the solution both these causes have a mutually independent effect and the crude $CaMoO_4$ contains $CaSO_4$ in both structurally free and isomorphically bound

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/137/61/000/012/039/149
A006/A101

On the theory of calcium molybdate ...

form. The former can be practically completely eliminated by washing the precipitate with water; the latter can not be removed, either by washing with water or carbonization. There are 7 references.

G. Svoitseva

[Abstracter's note: Complete translation]

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

NELEN', I.M.; SOBOL', S.I.

Mechanism of the catalytic effect of copper in ammonia leaching in autoclaves. Sbor. nauch. trud. GINTSVETMET no.15:577-584 '59. (MIRA 14:4)
(Sphalerite) (Leaching)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/697/61/000/000/006/018
D228/D303

AUTHORS: Sobol', S. I., Spiridonova, V. I. and Gulyayeva, Ye. I.

TITLE: Application of autoclave processes for treating sulfidic rheniferous molybdic material

SOURCE: Akademiya nauk SSSR. Institut metallurgii im. A. A. Baykova. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Mezhduvedomstvennaya komissiya po redkim metallam. Vsesoyuznoye soveshchaniye po probleme reniya. Moscow, 1958. Reniy; trudy soveshchaniya. Moscow, Izd-vo AN SSSR, 1961, 56-61

TEXT: Before discussing the results of their study of the oxidation leaching of MoS, the behavior of Re during the reprocessing of the leach solutions, and the final recovery of Re from the mother liquor, the authors note the need for radically improving the technology of current methods of Re extraction. They suggest the replacement of the sublimation process by a hydrometallurgy operation, which is illustrated in a flowsheet and entails the leaching of

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S/697/61/000/000/006/018
D228/D303

Application of autoclave ...

sulfides in autoclaves under pressure of O_2 or air at high temperatures. It is described how the use of NaOH in the leaching process both decreases the loss of Mo and allows the complete separation of Mo and Re from other heavy metals. The total solution of Re, Mo and W can be effected in 4 - 6 hrs at 200 - 220°C and 3- 40 atm. in the presence of sufficient soda to maintain a pH of 8 - 9. Chemical equations, graphs and thermodynamic constants are then adduced to illustrate the method of Re and Mo separation, when MoO_2 precipitates and Re remains in solution as ReO_4^-. The MoO ion is believed to prevent the copptn. of ReO_2 with MoO_2 -- and not the WO_4^{2-} ion; this assumption was verified experimentally by means of radioactive Re^{186}. The authors followed I. F. Popov's procedure when recovering Re from the autoclave-leach solution by absorbing it on various types of activated carbon. The metal was then desorbed with a 1% solution of Na_2CO_3. In conclusion it is stated that research is be-

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/137/63/000/002/002/034
A006/A101

AUTHOR: Sobol', S. I.

TITLE: Physico-chemical foundations of a process to obtain molybdenum dioxide from sodium molybdate solutions

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1963, 22, abstract 2A96 ("Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met.", 1961, no. 18, 414 - 437)

TEXT: The author studied the physico-chemical foundations of an autoclave process for obtaining MoO_2 from Na_2MoO_4 solutions by reduction with H_2, CO and MO metal powder in the presence of admixtures (W and Re). When H_2 was used the temperatures varied within a range from 180 - 225°C, and p_{total} was within a range up to 150 atm. In case of using CO, the temperatures were 200 - 220°C and $p_{tot.}$ 85 - 100 atm. Reactions with Mo metal powder proceeded at 200 - 250°C. The experiments were made in an autoclave. On the basis of experimental results, equilibrium constants K were calculated as well as the free energies ΔZ of reac-

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/137/63/000/002/002/034
A006/A101

Physico-chemical foundations of a...

tions $Na_2MoO_4+H_2 \rightleftarrows MoO_2(mb) + 2NaOH$ and $Na_2WO_4+H_2 \rightleftarrows WO_2(mb) + 2NaOH$; the equilibrium constants of the same reactions in the presence of Mo metal powder were also calculated. Corrections were introduced as to the temperature changes of pH, coefficient of volatility of H_2, and activity of the salts. When using CO, reduction of MoO_4^{2-} occurred also only to Mo^{4+}, whose salts are fully hydrolyzed and are accompanied by the formation of a black MoO_2 precipitate. MoO_2 is stable in acid and unstable in alkaline media. It is shown that K are low and $\Delta Z > 0$. With higher temperatures K increase slightly. The completeness of the reaction process is not controlled by temperature and p_{H_2} or p_{CO}, but by pH. According to the kinetic conditions and parameters of the process, the most effective reaction is $4H^+ + 2MoO_4^{2-} + Mo \rightleftarrows 3MoO(mb) + 2H_2O$. The optimum conditions of this reaction are: pH 2.5 - 3.0, temperature 200 ± 10°C; duration 1 - 2 hours. W is precipitated with MoO_2; the precipitation degree is the higher the lower pH. Re is practically not precipitated with MoO_2. The verification of the results obtained on natural solutions yielded satisfactory results.

A. Panov

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', S.I.; SPIRIDONOVA, V.I.; MELEN', I.M.

Technology of processing molybdenum sulfide raw materials by means of an oxidizing autoclave leaching. Sbor. nauch. trud. Gintsvetmeta no.18:392-405 '61. (MIRA 16:7)

(Molybdenum--Metallurgy) (Leaching)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/079/61/031/002/001/019
B118/B208

AUTHOR: Sobol', S. I.

TITLE: Values of isobaric-isothermal potential and activity product of $Ni(OH)_4$

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 2, 1961, 372-374

TEXT: Considerable difficulties in the determination of physicochemical constants are encountered when studying the higher hydroxides of cobalt and nickel since these hydroxides have pronounced oxidation properties with respect to many products, and decompose water (Ref. 3). In Ref. 2, the author calculated the normal redox potential of the system $Ni^{2+}/Ni(OH)_4$ on the basis of data available at that time, and obtained the value +1.93 V instead of E^o = + 1.68 V which has been obtained by Latimer (Ref. 3). Recent data show the activity product of nickel hydrosuboxide to be $1.36 \cdot 10^{-15}$ (Ref. 4) or $3.6 \cdot 10^{-16}$ (Ref. 5). It greatly deviates from the value

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$6.5 \cdot 10^{-18}$ obtained by R. Gayer and A. Garret, which had been used by the author for the above calculation. When utilizing these new data of Refs. 4 and 5, the redox potential of the system $Ni^{2+}/Ni(OH)_4$ is about +2.04 v.

The normal redox potential of the process

$Ni^{2+} + 4H_2O = Ni(OH)_4 + 4H^+ + 2e^-$ (1) is likely to be within the range 1.93-2.04 V. Hence, the hydroxide of tetravalent nickel, one of the most potent oxidizing agents, is very unstable owing to its capability of decomposing water and oxidizing the hydroxyl ions combined with the Ni^{4+} ion in the $Ni(OH)_4$ molecule:

$Ni(OH)_4 = Ni(OH)_2 + H_2O + \frac{1}{2} O_2$ (2). The activity product could be only obtained by calculation and not experimentally, by means of the isobaric-exothermic potential (free energy) on formation of $Ni(OH)_4$. Free energy (1) is:

$$\Delta Z^o = -23060\ n\ E^o = -\begin{Bmatrix} -2.04 \cdot 2 \cdot 23060 \\ -1.93 \cdot 2 \cdot 23060 \end{Bmatrix} = \begin{Bmatrix} +94000 \\ +89000 \end{Bmatrix} \text{cal, i.e. } 91.500 \pm 2500 \text{ cal}$$

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on an average. Hence (according to data of Ref. 3):

$$\Delta Z^{o}_{Ni(OH)_4} = (-11.53) + 4(-56.69) - (+91.50 \pm 2.50) = -329.79 \pm 2.50 \text{ cal/mole}$$

The value obtained corresponds to the formation of $Ni(OH)_4$ from the elements. The value ΔZ^{o} on formation of $Ni(OH)_4$ according to the reaction $Ni^{4+} + 4(OH^{-}) \rightleftarrows Ni(OH)_4$ (3) must be known to calculate the activity products $Ni(OH)_4$. The activity product was only approximated, and $L_{Ni(OH)_4}$ was found to be $10^{-132} - 10^{-205}$, which indicates the extremely low solubility of the hydroxide of tetravalent nickel. There are 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Nauchno-issledovatel'skiy institut tsvetnykh metallov "Gintsvetmet" Moskva (Moscow Scientific Research Institute of Nonferrous Metals "Gintsvetmet")

SUBMITTED: June 3, 1959

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', S.I.; NELEN', I.M.; SPIRIDONOVA, V.I.; BERLIN, Z.L; GORYACHKIN, V.I.; TARAKANOV, B.M.; SHKURSKIY, V.D.; Prinimali uchastiye: FREYMAN, A.K., inzh.; BRUK, B.M., inzh.; CHEBOTKEVICH, G.V., inzh.; OSPIN, V.G., inzh.; ALEKSANDROVA, N.N., laborant; SALTYKOV, I.B., laborant; TELKOVA, Ye.I., laborantka; TEPLYAKOV, Yu.M., laborant; GAVRILENKO, A.P., slesar'; KURGUZOV, A.S., elektrik; GAVRILOV, I.T., elektrik

Pilot-plant testing of the State Institute of Nonferrous Metals flow sheet for the autoclave retreatment of copper-molybdenum intermediate products. Sbor. nauch. trud. Gintsvetmeta no.19:319-339 '62. (MIRA 16:7)

(Nonferrous metals--Metallurgy)
(Leaching)

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L 34971-65 EWP(e)/EWT(m)/EWP(t)/EWP(k)/EWP(b) Pf-4/Pad IJP(c) JD/HW

ACCESSION NR: AP5008553 S/0286/65/000/006/0062/0063

23 B

AUTHORS: Sobol', S. I.; Besolov, A. F.; Kononov, A. V.

TITLE: A method for recovering metals, for instance copper, nickel, and cobalt, from solutions of their salts by recovery gases in an autoclave. Class 40, No. 169254

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 62-63

TOPIC TAGS: metal powder, chemical production, autoclave, gas pressure

ABSTRACT: This Author Certificate presents a method for recovering metals, for instance, copper, nickel, and cobalt, from solutions of their salts by recovery gases in an autoclave. To improve the quality of metallic powder and to increase the productivity of the autoclave, the solution is fed into the autoclave continuously and at a constant rate depending on the gas temperature and pressure. The terminal concentration of the recovered metal in the spent solution is held at 6-12 g/liter.

ASSOCIATION: none

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

GORYACHKIN, V.I.; SOBOL', S.I.

Solubility of metal sulfates at high temperatures. Sbor. nauch. trud. Gintsvetmeta no.23:252-262 '65. (MIRA 18:12)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', S.I.; KONONOV, A.V.

Autoclave production technology of copper powders. TSvet. met. 38 no.1:22-27 Ja '65 (MIRA 18:2)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

KRYSENKO, N.S.; POZNYAKOV, V.Ya.; GAZARYAN, L.M.; ZADOV, Ye.B.; KADYRZHANOV, K.K.; KUZ'MIN, A.V.; TROITSKIY, A.V.; LEZGINTSEV, G.M.; MITROFANOV, S.I.; SOLOV'YEV, V.Ya.; SOBOL', S.I.; MYAGKOVA, T.M.; GAYLIT, A.A.; GENIN, N.N.; GRATSERSHTEYN, I.M.; SKORNYAKOV, Yu.T., referent

Fourth plenum of the central administration of the Scientific Technological Society for Nonferrous Metallurgy. TSvet. met. 38 no.5:90 My '65. (MIRA 18:6)

1. Chlen TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii i zavod "Ukrtsink" (for Krysenko). 2. Chlen TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii i "Severonikel'" (for Poznyakov). 3. Institut metallurgii im. Baykova (for Gazaryan). 4. Predsedatel' soveta Nauchno-tekhnicheskogo obshchestva Kol'chuginskogo zavoda OTsM (for Zadov). 5. Chlen TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii, Sovet narodnogo khozyaystva Kazakhskoy SSR (for Kadyrzhanov). 6. Predsedatel' gorno-geologicheskoy sektsii TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii; Gosudarstvennyy komitet Soveta Ministrov RSFSR po koordinatsii nauchno-issledovatel'skikh rabot (for Kuz'min). 7. Chlen TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva

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KRYSENKO, N.S.--- (continued) Card 2.

tsvetnoy metallurgii, Sovet narodnogo khozyaystva SSSR (for Troitskiy). 8. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsvetnoy metallurgii (for Lezgintsev). 9. Gosudarstvennyy nauchno-issledovatel'skiy institut tsvetnykh metallov (for Mitrofanov, Sobol', Genin). 10. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov (for Solov'yev). 11. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut mekhanicheskoy obrabotki poleznykh iskopayemykh (for Myagkova). 12. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsvetnoy metallurgii (for Gaylit).

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SOBOL, S.L.

DECEASED
C' 1960

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BIOLOGY

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', V.

Statistics

Some questions on the theory of statistics, Vest. stat., No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', V.

Measuring labor productivity in the U.S.S.R. Sots.trud.no.9:22-31 S '56. (MLRA 9:12)

(Labor productivity)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', V., inzh.

Electrification of the collective-farm village of Ksaverivka.
Sil.bud. 9 no.11:6-7 N '59. (MIRA 13:4)
(Ksaverivka--Rural electrification)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', Valerian Antonovich; MALYSHEV, I.S., red.; GRYAZNOV, V.I., red.; PYATAKOVA, N.D., tekhn.red.

[Studies on problems in the balance of the national economy] Ocherki po voprosam balansa narodnogo khoziaistva. Pod red. I.S.Malysheva. Moskva, Gosstatizdat TsSU SSSR, 1960. 227 p. (MIRA 13:10)

(Russia--Economic policy)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

FATYUSHENKO, S.G. [Fatiushenko, S.H.], inzh.; SOBOL', V.D., inzh.

Automatization of the Krasnyy-Khutor Hydroelectric Power Station. Mekh. sil'. hosp. 9 no.10:22-24 O '58. (MIRA 11:10)
(Krasnyy-Khutor Hydroelectric Power Station)
(Automatic control)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', V.I., mayor, voyennyy letchik pervogo klassa

Relying on detachment commanders. Vest.Vozd.Fl. no.3:34-38 Mr '61. (MIRA 14:6)

(Russia--Air force--Officers)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

GRITS, L.M.; KEDENKO, V.S.; SOBOL', V.N.

Rapid method of analyzing the batch. Stek.i ker. 19 no.12:24-25 D '62. (MIRA 16:1)

1. Stekol'nyy zavod "Proletariy".
(Glass—Analysis)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/076/60/034/009/035/041XX
B020/B056

AUTHORS: Gerovich, M. A. (Deceased), Kaganovich, R. I., and Sobol', V. V.

TITLE: Adsorption of Ions on Monolayers. IV. Interaction Between Ions of Mono- and Bivalent Mercury and the Monolayer of Palmitic Acid

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 2091-2098

TEXT: In the present paper, the possibility of bimolecular films forming in the interaction of fatty acid monolayers with ions of metals other than silver (see Refs. 11-12) is investigated and their properties are studied. The attempt was made to obtain bimolecular layers by interaction of palmitic acid monolayers with the ions of mono- and bivalent mercury. The salts $Hg_2(ClO_4)_2$ and $HgCl_2$ were used, which had been purified by recrystallization. Thiophene-free, twice distilled benzene was used as a solvent for fatty acid. The surface potential was measured by means of a radioactive probe according to the method

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Adsorption of Ions on Monolayers. IV. Interaction Between Ions of Mono- and Bivalent Mercury and the Monolayer of Palmitic Acid

S/076/60/034/009/035/041XX
B020/B056

by J. Guyot and A. N. Frumkin (Refs. 16, 4) in the glass container shown in Fig. 1. Fig. 2 shows the curves illustrating the dependence of the surface potential on the holding time of the palmitic acid monolayer on the $1 \cdot 10^{-4}$ N $HClO_4$-solution (pH = 4), and on the same solution containing $1 \cdot 10^{-4}$ N $Hg_2(ClO_4)_2$. The surface potential drop of the monolayer in the presence of mercury cations in the solution 10-15 minutes after applying the fatty acid attains a constant value of 40-50 mv. The dependence of the effect described upon the concentration of the Hg_2^{2+} ions and the pH of the solution is shown in Fig. 3, from which it follows that the effect of the potential drop occurs in the case of a certain relation between the concentration of the Hg_2^{2+} ions and the pH of the solution, and is limited to a very narrow pH-range. The curve characterizing the dependence of the negative logarithm of the critical concentration of Hg_2^{2+} ions on pH, has a linear character (Fig. 4). In

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Adsorption of Ions on Monolayers. IV. Interaction Between Ions of Mono- and Bivalent Mercury and the Monolayer of Palmitic Acid

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B020/B056

order to explain the mechanism of the reaction occurring in the surface layer and to determine the structure of the forming layer, the dependence of two-dimensional pressure and surface potential on the area of the palmitic acid molecules is studied (the palmitic acid was applied to solutions with and without Hg-ions). The method of these determinations and the device with bath and torsion balance are described in Ref. 6. The results of these measurements, carried out upon a pure perchloric acid solution at pH = 3.2, and upon the same 10^{-4} N mercury (I) perchlorate-containing solution are given in Fig. 5. Analogous π-A-two-dimensional pressure - molecular area curves were found with the compression of palmitic acid monolayers containing Hg^{2+} ions after destruction. Actually, the molecular areas of the film, applied onto a 10^{-3} N $HgCl_2$-solution at pH = 5.9, equal 12.5 A^2 and without Hg^{2+} ions equal 22.0 A^2 (Fig. 6). As shown by Table 1, four successive applications suffice for the complete saturation of the solution under investigation.

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Adsorption of Ions on Monolayers. IV. Interaction Between Ions of Mono- and Bivalent Mercury and the Monolayer of Palmitic Acid

S/076/60/034/009/035/041XX
B020/B056

The area calculated for a molecule gives 11.6 A^2, which is half the molecular area characterizing the fatty acid monolayer. The curve of the change in the surface potential of the palmitic acid film over a 10^{-3} N $HClO_4$-solution is given in Fig. 7. The interaction between the ions Hg_2^{2+}, Hg^{2+} adsorbed on the surface layer and the palmitic acid molecules leads to the destruction of the monolayer and to the formation of a new film with A = 10.6 A (twice less than in the monolayer) and the surface potential ΔV = 100 mv. As may be seen from Table 2, k' (the negative constant of the heterogeneous reaction $[H^+]^2/[Hg_2^{2+}]$), calculated for three values of the critical concentration of the ions Hg_2^{2+} between 10^{-3} - 10^{-3}N is satisfactorily constant. Mention is made of A. A. Trapeznikov, A. N. Frumkin, and D. L. Talmud. Academician A. N. Frumkin is thanked for evaluating the results of the present paper. There are 7 figures, 2 tables, and 17 references: 9 Soviet, 3 US, 4 British, and 1 French.

Card 4/5

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

Adsorption of Ions on Monolayers. IV. Interaction Between Ions of Mono- and Bivalent Mercury and the Monolayer of Palmitic Acid

S/076/60/034/009/035/041XX
B020/B056

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

SUBMITTED: January 6, 1959

Card 5/5

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL', V.V.; IOFA, Z.A.

Study of the surface of an iron electrode by measuring the potential drop after the break of current flow. Dokl.AN SSSR 138 no.5:1151-1154 Je '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom A.N.Frumkinym.
(Electrodes, Iron)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

FRUMKIN, A.N., akademik; SOBOL', V.V.

Measurement of the potential drop on a platinum anode after the opening of a polarizing current circuit. Dokl. AN SSSR 141 no.4:917-920 D '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Electrodes, Platinum)
(Electromotive force)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

FRUMKIN, A.N., akademik; KAGANOVICH, R.I.; YAKOVLEVA, Ye.V.; SOBOL', V.V.

Effect of cations on oxygen overvoltage. Dokl. AN SSSR 141 no.6: 1416-1419 D '61. (MIRA 14:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Cations) (Oxygen) (Overvoltage)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

MYRDEK, [illegible]

Effect of two-charge cations on the process of oxygen reduction on platinum in alkaline solution. Elektrokhimiia 1 no.1:111-112 Ja '65. (MIRA 18:5)

1. Moskovskiy gosudarstvennyy universitet.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

L 12899-66 EWT(m)/ETC(F)/EWG(m)/T/EWP(t)/EWP(b) IJP(c) DS/JD/JG

ACC NR: AP5027579 (A) SOURCE CODE: UR/0364/65/001/011/1332/1338

AUTHOR: Sobol', V. V.; Khrushcheva, Ye. I.; Dagayeva, V. A.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Ionization of molecular oxygen on palladium

SOURCE: Elektrokhimiya, v. 1, no. 11, 1965, 1332-1338

TOPIC TAGS: palladium, oxygen, chemical reduction, electrochemistry, adsorption

ABSTRACT: Cathodic reduction of oxygen on palladium was investigated, Frumkin-Nekrasov method [*Dokl. AN SSSR*, 149, 126, 415 (1959)]. The measuring system consists of two rotating electrodes: a smooth palladium disc and a platinized ring. It is shown that oxygen is reduced on palladium both in acid and in alkaline media in two successive stages through the formation of hydrogen peroxide according to the mechanism proposed for Pt by Myuller and Nekrasov

$$O_2 \rightarrow H_2O_2 \text{ and } H_2O_2 \rightarrow H_2O \text{ or } OH^-$$

The surface oxide layers on palladium retard the initial reduction to

Card 1/2 UDC: 541.138.3:546.21

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ACC NR: AP5027579

peroxide and accelerate the second ionization process of oxygen. In acid medium, the reduction of oxygen is retarded by the adsorption of anions on the electrode surface. The difference in the behavior of Pt and Pd is that the yield of H_2O_2 on Pt comprises 34.5% while on Pd it is only 9%. The reduction of oxygen is much more reversible on Pd than on Pt. Orig. art. has: 6 figures.

SUB CODE: 20,07/ SUBM DATE: 25Feb65/ ORIG REF: 008/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

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[illegible]

[illegible] optical thickness [illegible] 31 no.1:[illegible] (MIRA 18:3)
'65.

1. [illegible] i optiki.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

OL'NYANSKAYA,R.P.; SOBOL',Ye.M.

Respiration and gas exchange in sheep at different mountain altitudes. Trudy Biol. inst.Kir FAN SSSR no.1:183-191 '47.
(Sheep) (Respiration) (MLRA 8:10)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SEBELA, Zdenek, inz.; SOBOL, Zdenek, inz.

Determining the capacity of mining installation for the new and reconstructed deep mines. Uhli 4 no.9:273-275 Ag '62.

1. Banske projekty, Ostrava (for Sebela). 2. Sdruzeni Ostravskokarvinskych dolu, Ostrava (for Sobol).

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL, Alenek, Inz. [illegible]

Some problems of machinery and equipment maintenance in the coal industry. [illegible]

L. Ostravsko Karvinske [illegible]

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOL, Zdzislaw; ZURAWIECKI, Kazimierz

A new solution of the problem of the sick-bay on fishing factory trawlers. Bull. inst. mar. med. Gdansk 14 no.3:209-312 '63.

1. Z Instytutu Medycyny Morskiej w Gdansku.

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

MUCZOWSKA, Zofia; SOBOL, Zdzislaw

Sanitation standards for the construction of Polish vessels. Bull. inst. mar. med. Gdansk 16 no.1:115-118 '65.

1. From the Institute of Marine Medicine in Gdansk.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOLENKO, I.F.

Casting ribbed plates of magnesium cast iron.
Sbor.rats.predl.vnedr.v proizv. no.1:47 '61. (MIRA 14:7)

1. Dnepropetrovskiy chugunoval'tsedelatel'nyy zavod.
(Founding)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOLENKO, I.F.

Improving the design of the metallic section of the detachable crown of a reverberatory furnace. Sbor.rats.predl.vnedr.v proizv. no.1:47-48 '61. (MIRA 14:7)

1. Dnepropetrovskiy chugunoval'tsedelatel'nyy zavod.
(Machine-shop practice)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

LUKANSKAYA, E.; SOBOLENKO, T., tekh.

[Minsk Automobile Plant]Minskii avtomobil'nyi zavod. Minsk, Gos. izd-vo BSSR, 1962. 1 v. (MIRA 15:11)

1. Minskii gosudarstvennyy avtomobil'nyy zavod.
(Minsk--Motortrucks--Design and construction)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SURSKIY, A.[Surski, A.]; SOBOLENKO, T.[Sabalenka, T.], red.

Brest. Minsk, Vyd-va "Belarus'," 1964. 111 p.
___ [Supplement to the Brest album] Prilozhenie k al'bomu Brest. 13 p. (MIRA 18:2)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

S/180/62/000/003/009/016
E193/E383

AUTHORS: Rogel'berg, L.N., Kuznetsov, G.M. and Sobolenko, T.M. (Moscow)

TITLE: X-ray investigation of the decomposition of the solid solution in aluminium alloys after quenching and deformation

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no. 3, 1962, 81 - 84

TEXT: The effect of plastic deformation on the kinetics of decomposition of the solid solution in solution-treated Al-Mg alloys was studied. The experimental alloys contained 7.3% Mg, 0.35% Mn, 0.05% Ti, 0.05% Zr, 0.003% Be with Fe and Si as impurities (approximately 0.15% each); one of the alloys contained also 0.9% Zn. Ageing tests were carried out on strip specimens (15 x 20 x 1 mm), air-quenched from 450 °C after 4 h at the temperature and then cold-rolled to 50% reduction. The ageing temperature ranged from 70 to 300 °C, the ageing time from 5 sec to 60 days. The progress of decomposition during ageing

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was inferred from X-ray diffraction data on the change in the lattice parameter and from the variation in the width of the (422) lines. Conclusions:

1. plastic deformation of solution-treated Al-Mg alloys accelerates the decomposition of the solid solution during ageing; the lower the ageing temperature, the more marked is this effect.

2) The effect of plastic deformation on the rate of decomposition of solid solution is more pronounced in Al-Mg alloys with 0.9% Zn, the difference between the Zn-bearing and Zn-free alloys increasing with decreasing ageing temperature.

3) The combined effect of Zn addition, plastic deformation and ageing temperature on the rate of decomposition is shown quantitatively in Fig. 3, where the moment at which this process begins is plotted in the ageing-temperature (^{o}C)/ageing-time (min) coordinates; the points (1) and circles (2) relate, respectively, to Zn-free and Zn-bearing alloys, the continuous and broken curves relating, respectively, to quenched only and quenched plus plastically deformed specimens. There are 3 figures.

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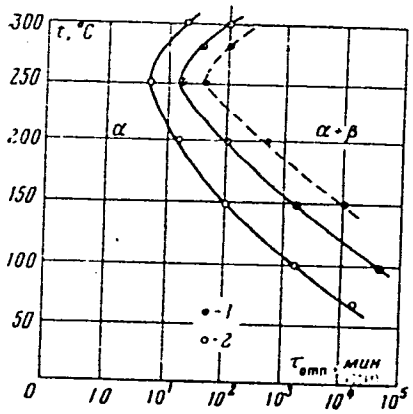
X-ray investigation ....

S/180/62/000/003/009/016
E193/E383

SUBMITTED: March 28, 1961

Fig. 3:



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ACC NR: AP7000645

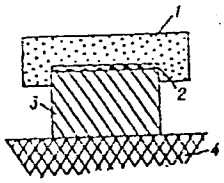

Fig. 1. Layout of the hardening process

1 - Explosive charge; 2 - inert material; 3 - hardened specimen; 4 - rigid base.

increased with increasing thickness of the layer of explosive. Explosive strengthening with this technique increased the G13 steel tensile strength from 61.0 to 100.0 kg/mm^2 and the yield strength from 46.6 to 90.2 kg/mm^2, and decreased the reduction of area from 13.6 to 7.0% and the impact toughness from 9.6 to 7.6 kg·m/cm^2. Application of this technique of explosive strengthening increased the service life of railroad frogs by 1.5—2 times. Orig. art. has: 9 figures and 4 tables. [MS]

SUB CODE: 13, 11/ SUBM DATE: 12Mar66/ ORIG REF: 002/ OTH REF: 002/ ATD PRESS: 5109

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

PAVLOV, V., kandidat tekhnicheskikh nauk; SOBOLENKO, V., inzhener.

Use in marine boilers of spray burners regulated by varying fuel return flow. Mor.flot 17 no.1:12-14 Ja '57. (MLRA 10:3)

1. Zavod imeni Ordzhonikidze, Leningrad (for Sobolenko)
(Boilers, Marine)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOLENKO, V.

Making better use of machinery. Nauka i pered. op. v sel'khoz 8 no.12:28-31 D '58. (MIRA 12:1)

1. Predsedatel' kolkhoza imeni Lenina Korenovskogo rayona Krasnodarskogo kraya (for Sobolenko).
(Agricultural machinery)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOLENKO, V.S.

Increasing labor productivity and reducing production costs on the collective farm. Zemledelie 7 no.6:9-14 Je '59. (MIRA 12:8)

1. Predsedatel' kolkhoza im. Lenina, Korenovskogo rayona, Krasnodarskogo kraya.
(Collective farms--Labor productivity)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOLENKO, V.

One livestock raiser is doing the work of five. Nauka i pered. op.v sel'khoz. 9 no.12:16-18 D '59. (MIRA 13:4)

1. Predsedatel' kolkhoza imeni Lenina, Korenovskiy rayon, Krasnodarskiy kray.
(Dairy barns) (Farm mechnaization)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

RUSAKOV, G.K., kand. sel'khoz. nauk; MILYAVSKIY, I.O., kand. sel'khoz. nauk; SHILKO, V.P., kand. sel'khoz. nauk; MARTINENAS, A.N.; BELINSKIY, A.I., agr.-ekonom.; KARPUSHENKO, A.I., agr.-ekon. [deceased]; POSMITNYY, V.M., ekonom.; PANCHENKO, Ya.I., agr.-ekonom.; KVACHEV, V.M., agr.-ekonom.; SOBOLENKO, V.S.; KRAVTSOV, D.S., agronom.; LYSOV, V.F., ekonom.; SHLYAKHTIN, V.I., kand. ekon. nauk; TSYBUL'KO, F.Ye.; ORIKHOVSKIY, I.G., agr.-ekonom.; TATUREVICH, N.M., agr.-ekonom.; GANMASH, I.I.; NOSACHENKO, V.F., inzh.-ekonom.; MUKHUTSULLIN, Sh.M., agr.-ekonom.; ROZENTSVAYG, A.L., agr.-ekonom.; BERLIN, M.Z., dots.; IVANOV, K.I., agr.-ekonom.; SILIN, A.G., ekonom.; LIKHOT, I.K.; CHANOV, G.I., kand. ekon. nauk; MIKHAYLOV, M.V., kand. ekon. nauk; GORELIK, L.Ya., red.

[Planning and economical operation on collective farms] Planirovanie i rezhim ekonomii v kolkhozakh. Moskva, Ekonomika, 1965. 258 p. (MIRA 18:5)

1. Zaveduyushchiy otdelom ekonomiki i organizatsii kolkhoznogo proizvodstva Nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva Litovskoy SSR (for Martinenas). 2. Zaveduyushchiy otdelom Stavropol'skogo krayevogo komiteta KPSS (for Likhot).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

UMAROV, S.; IVANOV, I.; SOBOLEV, A.; KRASNOV, V.; VASILEVSKIY, I.; POTAPKIN, I.; IL'ICHEV, N.; PIZENGOL'TS, M.; SOKRATOV, K.; CHURSIN, A.; KAUGER, V.; VOLOVODOV, A.; BAZARYA, M.

Issuing credit to collective farms should be equal to the standard of the new tasks. Den. i kred. 16 no.4:3-26 Ap '58. (MIRA 11:5)

1.Upravlyayushchiy Uzbekskoy kontoroy Gosbanka (for Umarov). 2.Zamestitel' upravlyayushchego Rostovskoy oblastnoy kontoroy Gosbanka (for Ivanov). 3. Upravlyayushchiy proizvodstvenno-ekspluatatsionnogo otdela Sakhalinskoy oblastnoy kontory Gosbanka (for Sobolev). 4.Nachal'nik proizvodstvenno-ekspluatatsionnogo otdela Sakhalinskoy oblastnoy kontory Gosbanka (for Krasnov). 5.Zamestitel' upravlyayushchego Belorusskoy respublikanskoy kontoroy Gosbanka (for Vasilevskiy). 6.Nachal'nik otdela kreditovaniya sel'skogo khozyaystva i zagotovok Ukrainskoy respublikanskoy kontory Gosbanka (for Potapkin). 7. Upravlyayushchiy Mordovskoy respublikanskoy kontoroy (for Il'ichev). 8. Starshiy prepodavatel' Voronezhskogo sel'skokho zyaystvennogo instituta (for Pizengol'ts). 9. Saratovskiy ekonomicheskiy institut (for Sokratov). 10. Upravlyayushchiy Sovetskim otdeleniym Gosbanka Krasnodarskogo kraya (for Chursin). 11. Upravlyayushchiy Gorodishchenskim otdeleniyem Gosbanka Penzenskoy oblasti (Kauger). 12. Upravlyayushchiy Zherdevskim otdeleniyem Gosbanka Tambovskoy oblasti (for Volovodov). 13. Nachal'nik Upravleniya sel'skogo khozyaystva i zagotovok Gosbanka (for Bazarya). (Agricultural credit)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

107-57-7-34/56

AUTHOR: Sobolev, A. (Leningrad)

TITLE: A Simple Method for Polishing Cabinets
(Prostoy sposob polirovki yashchikov)

PERIODICAL: Radio, 1957, Nr 7, p 30 (USSR)

ABSTRACT: The method of wood polishing as described in Radio, 1956, #12, requires too much skill which the radio ham does not possess. A simpler method is suggested here.

The surface can be prepared for painting as is recommended in the above article. The cabinet is painted by "beits" paint, brown color. Dried for 2-3 hrs. Rubbed by a piece of soft wood.

Then #13 or 14 polish is sprayed over the surface of the cabinet; 5-6 layers of the polish are sprayed at a time. After 6-8 hrs of drying, irregular spots are patched up. Then the cabinet is permitted to dry for 3 to 5 days.

The final buffing should be done by a piece of cloth wetted in sunflower oil and treated with "GOI" paste.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOLEV, A., inzh.-mayor.

Measuring the sensitivity of radio receivers in the decimeter band. Voen. sviaz. 16 no.1:32-34 Ja '58. (MIRA 11:2)
(Radio, Shortwave--Receivers and reception)
(Radio measurements)

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SOBOLEV, A. (Leningrad)

Regulate business relations in the wholesale shoe trade. Sov. torg. 36 no.7:39-42 Jl '63. (MIRA 16:8)

(Shoe industry)

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8(2) SOV/32-25-3-47/62

AUTHORS: Korotkov, V. F., Kondrat'yev, P. A., Sobolev, A. A.

TITLE: Electron Time Relay for Spectral Analysis (Elektronnoye rele vremeni dlya spektral'nogo analiza)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, p 367 (USSR)

ABSTRACT: The electron time relay described has several favourable characteristics: variations of the voltage of ± 20 volt do practically not affect the operation of the relay, a determination of the combustion time and the exposure can be carried out with an accuracy of ± 0.2%. The relay works without transformer, an initial heating of the device prior to operation is unnecessary, and it can be manufactured in a plant laboratory. A diagram based on the common standard relay type MKU-48 is given (Fig). The description shows an application of capacitors of the types KMBG and KB, a voltage stabilizer SG 1 P, resistances VS-5 and VS-0.25, VS-0.5, VS-1 and VS, and a thyratron MTKh-90. The device can be set to any combustion and exposure time by changing the resistances. The time relay allows analyses with or without electrode combustion. There are 1 figure and 2 Soviet references.

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SOV/32-25-3-47/62

Electron Time Relay for Spectral Analysis

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy)

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SOBOLEV, A., polkovnik zapasa

If the scouts do not delay... Voen.znan. 41 no.11:21 N '65. (MIRA 18:12)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820008-0

SOBOLEV, A. (Shakhun'ya Gor'kovskoy oblasti)

The "jackdaw" has been set. Yosn. znan. 42 no.1:40 Ja '66. (MIRA 19:1)

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SOBOL V, A. A.

"The Trend of Evolution of the Nematodes of the Family Acuariidae," Dok. AN, 39, No. 2, 1943. Dept. Zool.; Gorky Inst. Agronomy, c1943-.

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SOKOL V. I. A.

"Trend of Evolution in Trematodes of the Family Philophthalmidae," 40, No. 9, 1943.
Dept. Zool., Gorky Agr. Inst. c1943-.

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SOBOLEV, A. A. Dr. Biolog. Sci.

Dissertation: "Spirurates of Domestic and Commercial-Game Animals." Moscow Zooveterinary Inst., 27 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

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[illegible], [illegible]

[illegible] (Nadsemeystva Rhabditoidea i Arhelencheidea), Parazitiskoyushchikh u nasekomykh, "Works on Helminthology", on the [illegible] Birthday of K. I. Skryabin, Izdat, Akad. Nauk, SSSR, 1953, page [illegible]

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SOBOLEV, A.A.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Sobolev, A. A.	"Handbook of Parasitic Nematodes"	Laboratory of Helminthology, Academy of Sciences USSR

SO: W-30604, 7 July 1954

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SOBOLEV, A. A., STETSYUK, G. A., DUB, Ye. M. AND KARAKIS, L. V.,

"The Experience With Aviation Spraying For the Purpose of Extermination of Insects in Forests", Military-Medical Journal, No. 8, p 65, 1955.

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C

COUNTRY : USSR
CATEGORY : Zooparasitology - Parasitic Worms

ABS. JOUR. : RZBiol., No.19 1958, No. 86333

AUTHOR : Sobolev, A.A.
INST. :
TITLE : An Evaluation of the Use of the Comparative Ontogenetic Method in the Classification of the Spirurates (Nematoda, Spirurata)

ORIG. PUB. : Zool. Zh., 1957, Vol.36, No.9, 1304-1311

ABSTRACT : On the basis of a study of the ontogenetic growth of the spirurates belonging to different taxonomic groups, Shabo (Ann. Parasitol., 1954, Vol.29, No. 1-4; 1955, Vol.30, No.1-2) proposed including in the suborder Spirurata a new superfamily - the Physaloptoroidea. Priority in the creation of this new superfamily belongs, however, to A.A. Sobolev (Opred. Parasitich. Nematod., 1949, Vol.1, 77), who based his judgment on a study of the comparative morphologic features of the imaginal forms. The agreement of the conclusions of both authors working independently of each other and

CARD: 1/3

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