AVILOV, S., inzh.

Installing hidden electric wiring in glass pipes. Stroitel' no.9:23-24 S '60. (MIRA 13:9)
(Electric wiring) (Pipe, Glass)

YARULIN, Kh.G.; AVILOV, S.V.

Using oil-base in drilling fluids with sidetracking. Azerb.neft. khoz. 35 no.8:41-42 Ag '56. (MLRA 9:10)

(Oil well drilling) (Oil well drilling fluids)

2

USSR. 712399 Electrodes for Welding and Cutting Metal Under Water. Elektrody dlia svarki i rezki metalla v vode. (Russian.) V. I. Arkhipov. Svarochnoe Proizvodstvo, 1955, no. 6, June, p. 9-11.

Formation of gases (H_2, CO, CO_2) in which arc burns; gas pressure and other factors. Strength and microstructure of welds with respect to compositions of electrodes used. Oxygen cutting. Graphs, tables, micrograph.

M 1234

AVILOV,T.I., inzhener

Underwater arc welding with argon shielding. Svar.proizv. no.8: 19-20 Ag'55. (MLRA 8:11)
(Underwater welding and cutting) (Protective atmospheres)

SOV/137-58-7-15088 D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 167 (USSR)

AUTHOR: Avilov, T.I.

TITLE: Some Metallurgical and Metallographic Aspects of Underwater Welding With High-grade Electrodes (Nekotoryye voprosy metallurgii i metallovedeniya svarki v vode kachestvennymi elektrodami)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Mosk. vyssh. tekhn. uch-shche im. N.E. Baumana (Moscow Technical College im. N.E. Bauman), Moscow, 1957

ASSOCIATION: Mosk. vyssh. tekhn. uch-shche im. N.E. Baumana (Moscow Technical College im. N.E. Bauman), Moscow

1. Underwater welding--Theory 2. Arc welding--Electrodes

Card 1/1

AVILOV, T. I., Cand Tech Sci -- (diss) "Certain Problems of the Metallurgy and Metallography of Welding in Water by Means of High-Grade Electrodes." Mos, 1957. 9 pp (Min of Higher Education USSR, Mos Order of Lenin and Order of Labor Red Banner Higher Technical School im Bauman), 100 copies (KL, 50-57, 119)

Avilov, T.I.

SUBJECT: USSR/Welding 135-4-5/15

AUTHOR: Avilov T.I., Engineer.

TITLE: Determining the Efficiency Factor of Metal-Fusing for Under-Water Welding (Opredeleniye k.p.d. protsessa plavleniya metalla pri svarke v vode).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 4, pp 15-17 (USSR)

ABSTRACT: The actual value of heating of the workpiece by the welding arc and the actual efficiency factor in the case of welding under water are not yet determined. The author's attempts to this end also did not give reliable results.

Subject article contains decriptions of experiments on determining the thermic efficiency factor of under water fusion, directly by the quantity of molten base metal and electrode metal. The first series of experiments were conducted in 2 m depth in the Moskva river, the second in 10 m depth in the Volga, the third in 18 m depth in sea. The results of measurements and calculations are given in the form of tables.

Card 1/3 The welds of under water arc welding show a deep fusion zone

135-4-5/15

TITLE: Determining the Efficiency Factor of Metal-Fusing for Under-Water Welding (Opredeleniye k.p.d. protsessa plavleniya metalla pri svarke v vode).

ASSOCIATION: Not stated.

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 3/3

AVILOV, T. I.

AUTHOR: Avilov, T.I., Engineer

135-58-5-4/17

TITLE: Study of the Process of Under-Water Arc Welding of Steel (Issledovaniye protsessa dugovoy svarki stali pod vodoy)

PERIODICAL: Svarochnoye Proizvodstvo, 1958, Nr 5, pp 12-14 (USSR)

ABSTRACT: The article presents the results of an experimental investigation. Three electrode grades most commonly used for underwater welding were tried: "TsN-P", "UONI-13/45-P", and electrodes coated with craft paper. The difference in mechanical properties of joints welded at different depths (2, 10, and 18 m) was determined and the behaviour of the basic chemical elements of weld metal - Mn, C, and Si - was studied. The abrupt drop of impact resistance, bend angle, and relative elongation with increasing depth at which welding was performed, with the chemical composition of weld metal remaining satisfactory, indicated that factors other than the content of the basic elements are involved. It is presumed that these other factors are the absorption of hydrogen by molten metal, and the oxidization of the metal, which agree with the results of investigations made by K.K.Khrenov [Ref. 3].

Card 1/2

Study of the Process of Under-Water Arc Welding of Steel 135-58-5-4/17

There are 7 graphs, 1 table, and 3 Soviet references.

AVAILABLE: Library of Congress

Card 2/2

25(1) SOV/135-59-5-6/21

AUTHOR: Avilov, T. I., Candidate of Technical Sciences

TITLE: The Static Characteristics of the Welding Arc Under Water

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 5, pp 16-17 (USSR)

ABSTRACT: The article describes experiments carried out to determine the relationship between certain parameters of the underwater arc on the following factors: the cooling effect of the water; the increased pressure of the water, the composition of the gas medium, in which the hydrogen content reaches 93%. The method used was of determining the electrical and geometrical parameters of the arc. The tests were carried out under industrial conditions at different times of the year and at different depths in sea and river water. They showed that the volt-ampere characteristics of an underwater arc are always increasing. The higher the current and the longer the arc, the higher the rise of the curve. This relationship is most pronounced at great depths. The intensity of the electric field in the underwater arc increases with the intensification of the current and the

Card 1/2

The Static Characteristics of the Welding Arc Under Water

length of the arc, which is a characteristic of an arc discharge in water. The diameter of the arc column increases slightly with intenser current and decreases with the submersion depth in water. The increased voltage in the underwater arc, as compared with an arc working in the air, is probably explained by the high hydrogen content in the zone of the arc as well as by the cooling effect of the water. There are 2 photos, 6 graphs and 1 table.

Card 2/2

AVILOV, T.I., kand.tekhn.nauk

Properties of the arc in underwater welding. Svar. proizv. no.2:19-21 '60. (MIRA 13:6)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta.
(Underwater welding and cutting) (Electric welding)

S/135/60/000/011/014/016
A006/A001

AUTHOR: Avilov, T.I., Candidate of Technical Sciences

TITLE: Arc Welding of Zinc Alloys

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 11, p. 40

TEXT: The author carried out experiments at the nauchno-issledovatel'skiy institut avtomobil'nogo transporta (Scientific Research Institute of Automobile Transport) concerning the recovery of cast 2 - 3 mm thick zinc-alloy parts by electric arc welding. The composition of the zinc alloy was: 4% Al, 3% Cu and about 0.1% Mg, the rest Zn. Welding was performed with O3A-2 electrodes with 80 - 110 amps current; about 20 v arc voltage; 0.54-0.72 m/min speed; minimum arc length, and electrode displacement without transverse oscillations. The experiments yielded good results, the seam formation being satisfactory and the weld metal being sufficiently ductile and compact. A certain increase of base metal brittleness in the zone adjacent to the weld, when welding some zinc-alloys, is caused by the accelerated decomposition of unstable phases under the effect of high temperature. This must be taken into account when welding zinc alloy parts requiring high strength. There are 2 figures.

ASSOCIATION: NIIAT

Card 1/1

Arc-Welding Silumin

was 8 g/amp.hr; the coefficient of building-up - 6 g/amp./hr; the coefficient of metal loss was between 10 and 40%. It was established that metal losses depended mainly on the degree of preheating the part, stability of the arc and the quality of the electrode coating. To obtain qualified welds with minimum loss of metal, maximum current intensity and minimum length of arc should be employed; the metal should be preheated at ~150 - 250°C. Experimental welding was performed with three silumin grades, mainly employed in automobile building: 1) normal or non-modified МКЦС (MKTsS) silumin containing (in %): 5 - 7 Zn; Si 3.5 - 5.5; Cu 1.5 - 3; Mn 0.4 - 0.7; Mg up to 0.3%; Fe up to 1.5%; the rest Al; 2) modified АЛ4 (AL4) silumins containing: Cu up to 0.3%; Si 8 - 10.5%; Mg 0.17 - 0.3%; Mn 0.25 - 0.5%; Fe up to 1%; Zn up to 0.3%, the rest Al. 3) The modifier added to the liquid metal contains 45% NaCl; 40% NaF and 15% Na_3AlF_6. 4) Modified heat treated silumins, quench hardened at 535°C for 2 - 6 hours, and aged at 175°C for 12 hours. It was found that the use of OZA-2 electrodes made it possible to replace expensive gas welding for the repair of silumin automobile parts by arc welding. The method does not require additional equipment. Conventional welding d-c generators may be used. Preheating of the parts may be performed using any heat source. The advantage of arc welding of silumin is the possibility of repeated welding-up of cracks and burnings if only the previously built-up metal had sufficiently cooled down, i. e. that its shrinkage had ceased.

Card 2/3

AVILOV, T., kand.tekhn.nauk

Electric welding of automobile parts made from aluminum alloys. Avt. transp. 39 no.4:25-27 Ap '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta.
(Aluminum alloys—Welding)

AVILOV, T.I., kand.tekhn.nauk

Reply to N. M. Madatov's article entitled "Certain peculiarities in the underwater burning of a welding arc." Svar. proizv. no.3: 41-43 Mr '62. (MIRA 15:2)
(Underwater welding and cutting) (Madatov, N.M.)

AVILOV, T., kand.tekhn.nauk

Electric welding of parts made of aluminum alloys. Avt.transp. 40 no.9:30-32 S '62. (MIRA 15:9)
(Electric welding)

AVILOV, T.I., kand. tekhn. nauk; [illegible], I.P., insh.

Welding of heat exchangers for gas turbines. Svar. proizv. no.8:34 Ag '65. (MIRA 18:8)

1. Moskovskiy avtomekhanicheskiy institut.

AVILOV, I. I. (Chem. Tech. Sciences) (All or automobile transport)

"Welding of thin-leaved (2--3mm) zinc alloys by aluminum electrodes."

Report presented at the 1st All-Union Conference on welding of heterogeneous metals, at the Inst of Electric Welding im. Ye. O. Paton, 14-19 June 1963. (Reported in Avtomaticheskaya svarka, Kiev, No. 9, Sept 1963, pp 95-96 author, V. R. Ryabov)
JPRS 24,691 19 May 64

AVILOV, V.

26966 SYROKOMSKIY, V. S. , SILAYEVA, E. V. , AVILOV, V. - Vlyaniye Kompleksoobrazovaniya Na Velichinu Potentsiala Sistem, Imeyushchikh Analiticheskoe Znachyeniye. Soobshch 4. Zavodskaya, 1949, No 8, S. 896-99

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

AVILOV, V.A., inzhener

Statistical analysis in the determination of machine-tool precision.
Vest.mash.35 no.8:66-69 Ag '55. (MLRA 8:10)
(Machine tools)

ANDRIANOV, K.A.; KURASHEVA, N.A.; AVILOV, V.A.

Condensation of α,ω-dihydroxydimethylsiloxanes with tetrabutoxytitanium. Izv. AN SSSR Ser. khim. no.9:1616-1619 '65. (MIRA 18:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 62479-65 EWT(m)/EPF(c)/EWP(j)/T RM

ACCESSION NR: AP5020976 UR/0190/65/007/008/1477/1477

AUTHOR: Andrianov, K. A.; Kurakov, G. A.; Sushentsova, F. F.; Myagkov, V. A.; Avilov, V. A.

TITLE: Polymerization of cyclic phenylsilsesquioxanes

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 8, 1965, 1477

TOPIC TAGS: organosilicon polymer, silicone, phenylsilsesquioxane

ABSTRACT: High-molecular-weight, benzene-soluble polymers having a glass transition temperature of above 300C have been prepared from the cyclic phenylsilsesquioxane octamer $(C_6H_5SiO_{1.5})_8$. It is noted that previous attempts at polymerizing the octamer were unsuccessful. The polymerization was carried out in two steps: first, in a high-boiling solvent (preferably, dimethylformamide) in the presence of an alkali to complete dissolution of the starting material, and then without solvent at 250—270C. [SM]

ASSOCIATION: none

Card 1/2

L 6249-65

ACCESSION NR: AP5020976 O

SUBMITTED: 01Apr65 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 000 OTHER: 002 AND PRESS: 4072

Card 2/2

L 21188-66 EWT(m)/EWP(j)/T/EWP(t)/ETC(m)-6 IJP(c) JD/WW/RM
ACC NR: AP6008047 (A) SOURCE CODE: UR/0020/66/166/004/0855/0856

AUTHOR: Andrianov, K. A. (Academician); Kurakov, G. A.; Sushchentsova, F. F.; Myagkov, V. A.; Avilov, V. A.

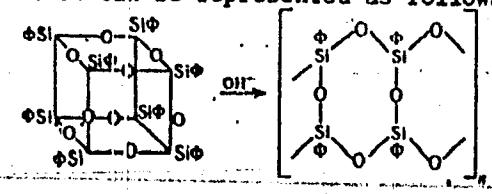
ORG: All-Union Scientific Research Institute of Synthetic Fibers (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh volokon); Moscow Institute of Fine Chemical Technology im. M. V. Lomonosova (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Polymerization of phenylcyclosilsesquioxanes

SOURCE: AN SSSR. Doklady, v. 166, no. 4, 1966, 855-856

TOPIC TAGS: organosilicon compound, polymerization

ABSTRACT: The octamer $(C_6H_5SiO_{1.5})_8$ was synthesized in order to study the reaction of its polymerization which can be represented as follows:



Card 1/2

L 21188-66
ACC NR: AP6008047

where $\Phi = C_6H_5$ and the hydroxide serves as the catalyst. Polyphenylsilsesquioxanes with a reduced viscosity in 1% benzene solution equal to 0.487, 1.974, 2.2, and 5.84 were obtained. All readily formed transparent films with glass-transition temperatures above 400°C. Thermogravimetric analysis showed that the polymers have very high degradation temperatures. Heating to 900°C does not cause the degradation of the polysilsesquioxane part of the polymer; this sets these polymers apart from polyorganosiloxanes having linear and branched chains in which not only the organic part of the molecule but also the main chains undergo degradation. Orig. art. has: 1 table.

SUB CODE: 07/ SUBM DATE: 05Jun65/ ORIG REF: 002/ OTH REF: 002

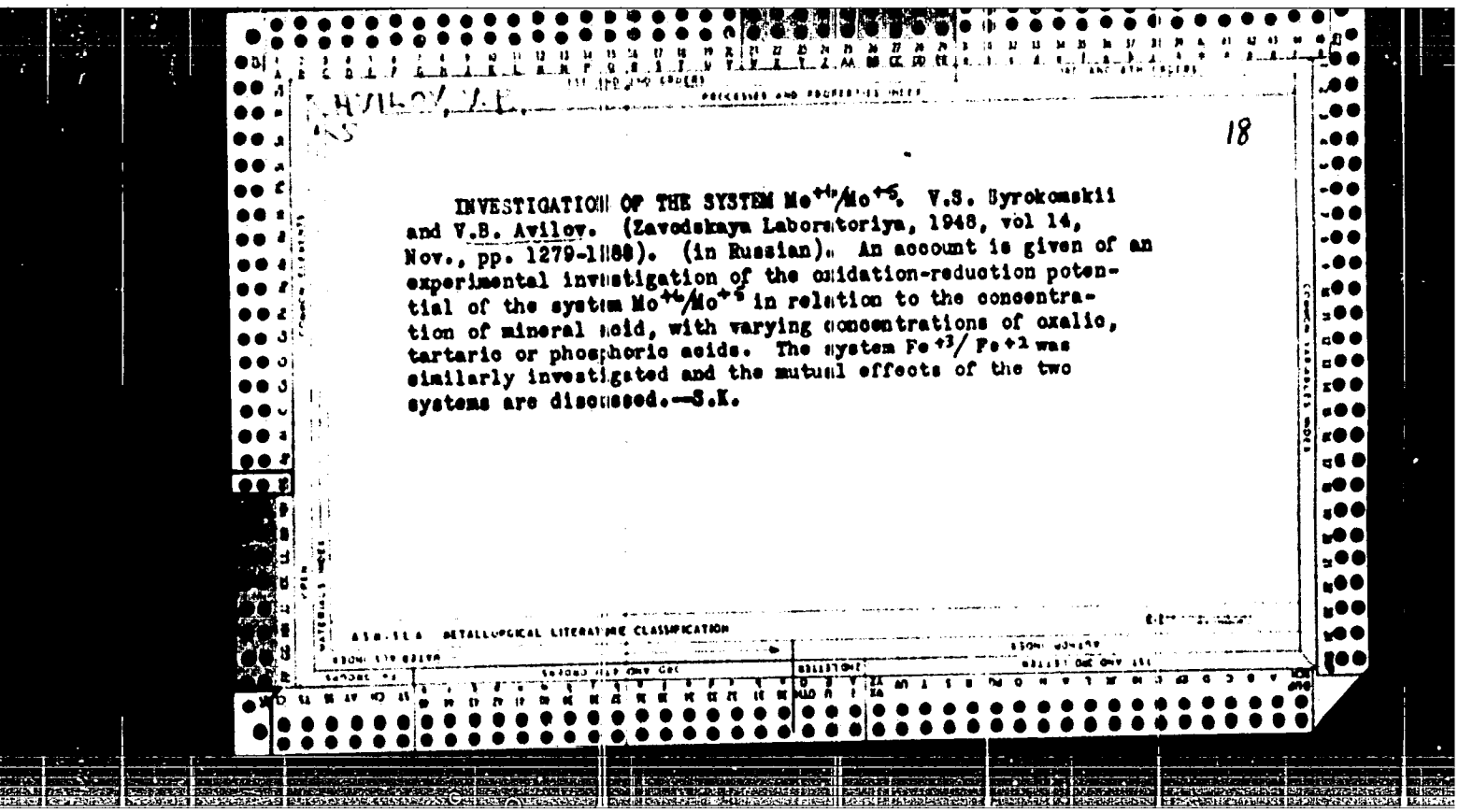
Card 2/2 BLG

CA

2

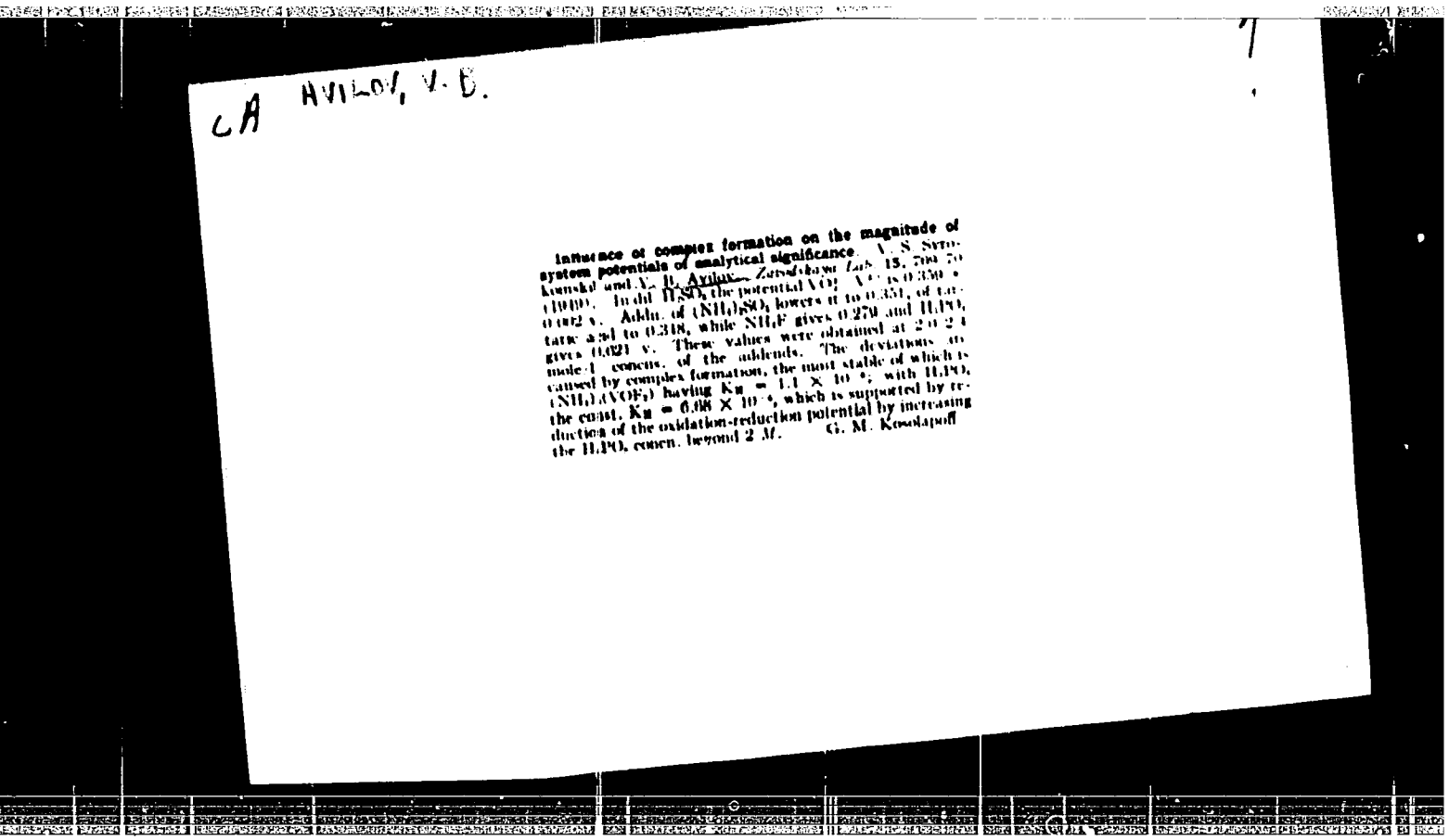
Effect of complex formation on the magnitude of potential of systems of analytical significance. I. V. S. Syrokomskiĭ and V. B. Avilov (Ural State Univ., Sverdlovsk). *Zavodskaya Lab.* 14, 1151-8(1948); cf. *C.A.* 44, 4784d, 6888e.—The principles underlying the variation of system potentials under the influence of complex formation are discussed. Several systems were investigated in this part of an extended study by means of a calomel or H_2SO_4, electrode and Pt foil electrode pair by using equimolar amts. of the requisite substances representing the lower and the higher valence states of the element, either in HCl or in H_2SO_4 soln. (*N* in respect to the acid and 0.02 *N* in respect to the particular ion). The ferric-ferrous systems in the presence of $H_4P_2O_7$ shows a steady decline of the potential from 0.713 v. to 0.416 as the concn. of the pyrophosphate varied from 0 to 1.0000 mole/l. The max. values of such potential declines are reached by the system at the following concns. of other complex-forming substances: HF (0.26 mole/l.) 0.600 v.; oxalic acid (0.02[illegible] mole/l.) 0.488 v.; H_3PO_4 (2.83 mole/l.) 0.516 v.; citric acid (0.2[illegible] mole/l.) 0.[illegible] v.; tartaric acid (0.5[illegible] mole/l.) 0.700 v.; all detd. in *N* H_2SO_4; in *N* HCl the values were: $H_4P_2O_7$ (0.000 mole/l.) 0.416 v.; oxalic acid (0.004) 0.480 v.; H_3PO_4 (2.60) 0.595 v. The system potential of Fe complexes increases with concn. of H ions; thus, in 0.37 *M* H_2SO_4 which is 2.8 *M* in respect to H_3PO_4 the potential is 0.516 v., while in 2.75 *M* H_2SO_4 it is 0.547 v. As the concn. of complex-forming agency is increased, the system potential declines more or less rapidly, and approaches the min. value as an asymptote. $H_4P_2O_7$ gives the most stable Fe complexes, reducing the Fe^{+++} concn. to the order of 10^{-7} at the max. concn. of the complexing substances either in HCl or H_2SO_4; HF is somewhat less effective, followed by oxalic and phosphoric acids, in that order.

G. M. Kosolapoff



18

INVESTIGATION OF THE SYSTEM Mo^{+4}/Mo^{+6}. V.S. Syrokomskii and V.B. Avilov. (Zavodskaya Laboratoriya, 1948, vol 14, Nov., pp. 1279-1288). (in Russian). An account is given of an experimental investigation of the oxidation-reduction potential of the system Mo^{+4}/Mo^{+6} in relation to the concentration of mineral acid, with varying concentrations of oxalic, tartaric or phosphoric acids. The system Fe^{+3}/Fe^{+2} was similarly investigated and the mutual effects of the two systems are discussed.—S.K.



CA AVILOV, V. D.

Influence of complex formation on the magnitude of system potentials of analytical significance. V. S. Syrokomskii and V. D. Avilov. *Zavodskaya Lab.* 15, 700-7 (1949). In dil. H_2SO_4 the potential VO_2^+, V^{+5} is 0.350 ± 0.002 v. Addn. of $(NH_4)_2SO_4$ lowers it to 0.351, of tartaric acid to 0.348, while NH_4F gives 0.270 and H_3PO_4 gives 0.021 v. These values were obtained at 2.0-2.4 molal concns. of the addends. The deviations are caused by complex formation, the most stable of which is $(NH_4)_3(VOF_5)$ having $K_{in} = 1.1 \times 10^{-6}$, with H_3PO_4 the const., $K_{in} = 6.08 \times 10^{-4}$, which is supported by reduction of the oxidation-reduction potential by increasing the H_3PO_4 concn. beyond 2 M. G. M. Kosolapoff

CA

AVILOV, V. I.

The influence of complex formation on the magnitude of potential of systems of analytical significance. VII. V. S. Syrokomskii and V. B. Avilov (Ural State Univ.) *Zavodskaya Lab.* 16, 11–16(1950); cf. *C.A.* 44, 1357*i*. The results of previous publications of the series are summarized and the significance is discussed from theoretical point of view. Complex-forming ions are divided into 2 classes: those which form a complex with only 1 ion of a given system and thus shift the reduction-oxidation potential in one direction (e.g., phosphate or pyrophosphate and Fe^{+++}) and those forming complexes with both potential-detg. ions of the system, which may give a shift of the reduction-oxidation potential in either direction depending on conditions (e.g., PO_4 ion in system of Mo(V) and Mo(VI)). 10 references. G. M. Kosolapoff

AVILOV, V. B.

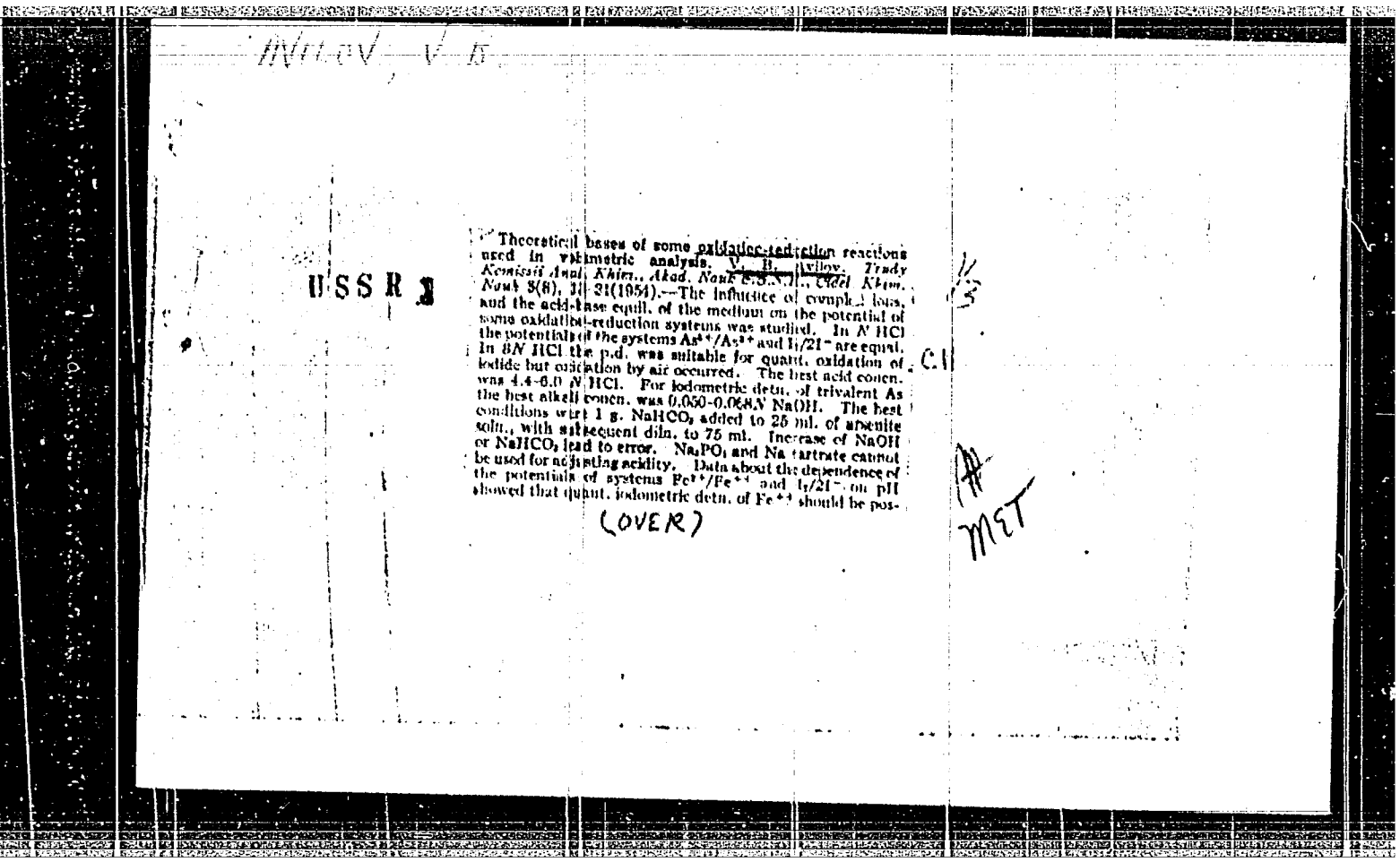
USSR/Chemistry - Analytical, Meeting

"Conference on Analytical Chemistry in the City of Gor'kiy," V.I. Kuznetsov

Zhur Anal Khim, Vol 7, No 4, pp 253, 254, 1952.

Regional conference held 4-6 June 52, called by Gor'kiy State U. Forty reports were heard, a number of them devoted to the theory of the action of org reagents, and to their utilization in analysis. V. I. Kuznetsov and L.M. Kul'verg reported on the effect of the peculiarities of the molecular structure of an org reagent on that reagen's reaction capability, B.A. Platunov pointed out that the completeness of the pptn of W by Org reagents is detd by the nature of the precipitator and the state of the W in soln. V.M. Peshkova spoke on the ease with which dioxime complexes of Ni could be extracted during the colorimetric detection of Ni in the presence of Co and other elements. A.K. Babko reported on utilizing silocomolybdic acid and phosphomolybdic acid in analysis. V.B. Avilov was heard on the physicochem bases of the iodometric detection of Au, Sb, Fe, Sn, Cr, and V, and on the theoretical bases of certain oxidizing-reducing reactions. A.M. Vasil'ev, V.F. Torpova and A.A. Busygina reported on the possibility of separating Cu, Cd, and Zn by ionic exchange on Wofatit R with solns containing thiosulfate and acetates. Reports were also presented on anitation-hygienic analysis.

261T27



USSR

Theoretical bases of some oxidative-reduction reactions used in volumetric analysis. V. B. Ivlev. *Trudy Komissii Anal. Khim., Akad. Nauk S.S.S.R., Otdel Khim. Nauk* 5(8), 31-31(1954).—The influence of complex. ions and the acid-base equil. of the medium on the potential of some oxidation-reduction systems was studied. In *N* HCl the potentials of the systems As^{5+}/As^{3+} and $I_2/2I^-$ are equal. In *8N* HCl the p.d. was suitable for quant. oxidation of iodide but oxidation by air occurred. The best acid concn. was 4.4–6.0 *N* HCl. For iodometric detn. of trivalent As the best alkali concn. was 0.050–0.068 *N* NaOH. The best conditions were 1 g. $NaHCO_3$ added to 25 ml. of arsenite soln., with subsequent dil. to 75 ml. Increase of NaOH or $NaHCO_3$ lead to error. Na_3PO_4 and Na tartrate cannot be used for adjusting acidity. Data about the dependence of the potentials of systems Fe^{3+}/Fe^{2+} and $I_2/2I^-$ on pH showed that quant. iodometric detn. of Fe^{2+} should be pos-

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U.S. AVILOV

sulfosalicylic acid, neutral, and weakly alk. media in the presence of certain ions which form Fe complexes. In the presence of tartaric or thiosalicylic acid it was possible to lower potential of the system Fe^{+++}/Fe^{++} to +0.1 v. in neutral medium or to −0.4 v. in weak alkali (<0.05 N NaOH). In these conditions potentials of the system $I_2/2I^-$ were 0.60 and 0.50 v., resp. Addn. of H_3PO_4 or oxalic acid did not make the oxidation quant. Iodometric determ. of Fe^{+++} was possible only in weakly acid medium in the presence of tartaric acid. Study of physicochem. properties of the system Fe^{+++}/Fe^{++} showed that for lowering the potential of the system, in HCl or H_2SO_4, one cannot use salicylic, tartaric, thiosalicylic acids and their salts, or citric acid or AcOH. $H_4P_2O_7$, H_3PO_4, HF, oxalic acid and their salts, K acid citrate, or NaOAc can be used. These reagents must be added to Fe soln. of strictly controlled acidity. In alk. media Fe^{+++} and Fe^{++} remained in soln. only in the presence of tartaric or thiosalicylic acid. In ~10 N HCl the reaction of oxidation of Sn^{++} by I_2 was unchanged by acidity but increase of acidity decreased potentials of both systems so, that air oxidation was a factor. The best concn. for HCl medium is N. In H_2SO_4 increase of acidity decreased the

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fnd. for these systems. The best conditions for iodometric detn. of Sn were 2*N* H_2SO_4 and titration to an excess of I_2. The potential of the system $I_2/2I^-$ decreased to 0.47 v. in 0*N* HCl or 10*N* H_2SO_4. Mn^{3+} required acidity >pH 2.2 for use as an oxidizing agent. In potentiometric titration of Fe^{3+} by Sn^{++} there was a much larger potential drop at the equivalence point in HCl than in H_2SO_4 (121 mv. and 25 mv. drop, resp.). For titration of Fe^{++} by $TiCl_3$ the addn. of tartaric acid to acid medium lowered the potential of the Fe system insignificantly but sharply increased the potential of system Ti^{4+}/Ti^{3+} to 0.0 v. Addn. of HF interfered with this reaction because Ti^{3+}, in presence of HF, has strong reducing properties (potential −0.124 v.). Detn. of Fe^{++} by vanadatometric titration was impossible in presence of H_3PO_4 which decreased the potential of Fe system to 0.13 v. and increased potential of system V^{4+}/V^{5+} to 0.46 v. When H_2SO_4 was added to an acid Ti soln. which had been oxidized by H_2O_2, a sulfate complex with Ti^{4+} formed first. By further addn. of sulfate a Ti^{4+} complex formed. The compn. of the ppt. depended on the amt. of H_2SO_4 in the soln. At low concn. of H_2SO_4 the ppt. had stoichiometric compn. Some compds. might be made stable to air oxidation by using tartaric acid or H_3PO_4 to increase the potentials of systems. Thus V^{4+} in *N* H_2SO_4 in the presence of H_3PO_4 was reduced by Bi reductor. Similarly Ti^{4+} and Sn^{4+} in *N* H_2SO_4 and tartaric acid were reduced. These Bi reductor expts. were done many times. Ti^{3+} in presence of Sn^{4+} was detd. by potentiometric titration with V^{5+} in the presence of *M* NH_4F with 0.5% precision. Ag^+ was quantitatively reduced by $FeSO_4$ in the presence of H_3PO_4. By addn. of oxalic acid Mo was detd. in presence of W by the usual volumetric method with out removal of W. For small quantities of Mo, the precision was 0.5%. R. Mayerle

AVILOV, V.B.

Spectrophotometric study of the behavior of redox indicators.
Trudy kom. anal. khim. 8:227-235 '58. (MIRA 11:8)

1.Ural'skiy gosudarstvennyy universitet im. A.M. Gor'kogo.
(Indicators and test-papers)

A. V. Lokov, V. B.

18(6) PHASE I BOOK EXPLOITATION SOV/3199

Akademiya nauk SSSR. Institut obshchey i neorganicheskoy khimii
im. N. S. Kurnakova

Analiz blagorodnykh metallov (Analysis of Noble Metals) Moscow,
1959. 193 p. Errata slip inserted. 2,700 copies printed.

Resp. Ed.: N. K. Pshenitsyn, USSR Academy of Sciences, Corresponding Member; and O. Ye. Zvyagintsev, Doctor of Chemical Sciences; Eds. of Publishing House: T. G. Levi, and D. M. Trifonov; Tech. Ed.: I. N. Guseva.

PURPOSE: This collection of articles is for scientists engaged in the study and analysis of the noble metals.

COVERAGE: This is a collection of articles on the analysis of the noble metals. It includes studies carried out by the Institute of General and Inorganic Chemistry im. N. S. Kurnakov (AN SSSR), as well as reports presented by scientific research organizations and by industrial enterprises at the Third and Fourth Conference on Noble Metals held in 1954 and 1957, respectively. The studies and reports describe new organic reagents for gravimetric determination of platinum metals, and physicochemical methods of analysis (spectrophotometric, polarographic and potentiometric). Special attention is given to spectral analysis for the determination of impurities in [illegible] of platinum metals, silver, and gold, as well as in refined noble platinum metals. The collection also includes analytical methods, tables and charts for materials containing metals of the platinum group, as well as a survey of the literature on the analysis of platinum metals published in the last five years. No personalities are mentioned. References follow each chapter.

Pshenitsyn, N. K., K. A. Gladyshevskaya and L. M. Kraikova. Use of the Ion Exchange Method in the Analysis of Platinum Metals. Report 2. Separation of Rhodium from Iridium 103

Anisimov, S. M., Ye. I. Nikitina and V. M. Alyaushkova. Methods of Preparing Pure Material Solutions and Obtaining From Them Cemented Substances for the Determination of Platinum Metals by Spectral Analysis 115

Kruger, V. F. Spectral Method for the Determination of Platinum, Palladium, and Tellurium in Silver-gold Alloys 128

Pavlotskaya, N. I. and A. D. Gutko. Spectral Method of Analysis for Refined Iridium and Ruthenium 133

Kurnaev, A. A., N. P. Rukada and N. P. Strizhova. Spectral Determination of Admixtures in Gold, Silver and Alloys 139

Kurnaev, A. A. Spectral Analysis of Platinum Alloys Containing Three Components 143

Kurnaev, A. F. and V. M. Markovich. Determining the Chemical Composition of Binary Alloys by the Thermoelectromotive Force 145

Antipov, V. B. Effect of Complexation and of the Acid-Alkali Balance in the Medium on the Potential of the As^{III}/Au^{0}, As^{III}/Au^{I}, and Ag^{I}/Ag^{0} Systems 150

Antipov, V. B. and K. V. Kosova. Chronatometric Determination of Gold 156

Anisimov, S. M., V. M. Klyenkov and V. P. Tronkal. Electrometric Method for the Determination of Silver in Silver and Lead Alloys Containing Platinum Metals 163

Yufa, T. F. and M. A. Chentsova. Dissolving Platinum Metals and Their Alloys With the Aid of an Alternating Current 176

Chentsova, M. A., T. F. Yufa and V. G. Levina. New Method for the Analysis of Palladium-silver Alloys 181

Rudnikov, M. S. and K. A. Shcina. Methods of Testing Palladium Alloys and Their Products on a Touchstone and by Chemical Means 184

S/137/61/000/011/121/123
A060/A101

AUTHOR: Avilov, V. B.

TITLE: Fundamentals of the bromatometric determination of antimony, tin, and arsenic

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 13, abstract 11K78 ("Tr. Ural'skogo elektromekhan. in-ta inzh. zh.-d. transp.", 1959, no. 2, 74 - 81)

TEXT: A study was made of the reduction behavior of systems Br^{V}/Br^{0}, Br^{V}/Br^{-1}, and $Br_2/2Br^{-1}$, As^{V}/As^{III}, Sn^{IV}/Sn^{II}, Sb^{V}/Sb^{III} in hydrochloric and sulfuric acid media. The bromatometric determination of As^{III} is carried out with an HCl content of 2 M/liter. The potential difference of the systems Br^{V}/Br^{-1} and As^{V}/As^{III} should be $\geq$ 0.12 v. The determination of Sb is carried out at an HCl concentration of 1.1 - 4.2 M/liter or H_2SO_4 concentration of 2.6 - 5.1 Moles/liter. The determination of Sn is possible at an HCl content from 1 to 10 M/liter. 1.4 M/liter is the best concentration.

P. Korostelev

[Abstracter's note: Complete translation]

Card 1/1

AVILOV, V.B.

Possible practical applications of complexes formed with the anions of organic acids in media of various acidities. Trudy kom. anal. khim. 11:44-51 '60. (MIRA 13:10)

1. Ural'skiy elektromekhanicheskiy institut inzhenerov zheleznodorozhnogo transporta.
(Complex compounds) (Acids, Organic)
(Oxidation-reduction reaction)

AVIDON, Valentin Pavlovich; PANOVA, A.I., red. izd-va; IYERUSALIMSKAYA, Ye., tekhn. red.

[Preliminary testing of clays in field conditions] Predvaritel'nye ispytaniia glin v polevykh usloviiakh. Moskva, Gosgeoltekhizdat, 1963. 125 p. (MIRA 16:8)
(Clay--Testing)

AVILOV, V.I.; YEDIGAROV, G.M.

Reinforcing deep prospecting wells with liners. Burenie no.1: 11-13 '65. (MIRA 18:5)

1. Prikumskaya kontora razvedochnogo bureniya.

STAKHEYEV,D.D.; TOBIAS, D.A., kandidat tekhnicheskikh nauk, retsenzent;
TAURIT, G.E., inzhener, retsenzent; AVILOV, V.M., redaktor;
MODEL', B.I., tekhnicheskiy redaktor

[The assembly line in mass machine production] Potochnaia liniia v massovom mashinostroenii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1951 202 p. [Microfilm] (MLRA 10:1)
(Machinery industry) (Assembly line methods)

SOV/137-59-3-5935

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 141 (USSR)

AUTHORS: Avilov, V. P., Postnikov, V. M.

TITLE: Electric Welding of Storage-battery Vessels on the "MShP-150" Machine (Elektrosvarka akkumulyatornykh sosudov na mashine "MShP-150")

PERIODICAL: Byul. tekhn. inform. Sovnarkhoz Kurskogo ekon. adm. r-na, 1958, Nr 3, pp 13-14

ABSTRACT: Use of resistance seam welding of storage-battery vessels made of pickled steel 1-1.25 mm thick instead of manual arc or automatic gas welding has reduced the percentage of rejects and, hence, has increased output by a factor of 2 to 3. The welding was done on a stock MShP-150 machine.

A. P.

Card 1/1

ACC NR: AP6029897 SOURCE CODE: UR/0413/66/000/015/0059/0060

INVENTOR: Leybov, E. L.; Kurochkin, Yu. M.; Avilov, V. Ye.; Zhironkin, V. P.; Sokolov, I. L.; Mamontova, I. T.

ORG: none

TITLE: Vacuum electromagnetic relay. 15 Class 21, No. 184351

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 59-60

TOPIC TAGS: electric relay, vacuum ~~relay~~ technique

ABSTRACT: A vacuum electromagnetic relay is introduced whose coil, wound with a heat-resistant wire, such as glass wire, is placed together with a contact system in

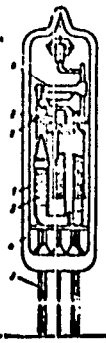

Fig. 1. Vacuum relay

1 - Coil; 2 - contact system;
3 - small leg; 4 - glass tube;
5 - armature; 6 - return spring;
7 - plate.

Card 1/2 UDC: 621.318.56. 04-186.2

ACC NR: AP6029897

a glass tube (see Fig. 1). To reduce both the weight and size of the relay, the device has a rotary armature, positioned parallel to the coil axis, and a return spring, placed together with contact springs on a plate perpendicular to the armature. [JR]
Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 06Feb64/ ATD PRESS: 5069

Card 2/2

L 8172-66 EWT(1)/EWA(h)
ACC NR: AP5024993 SOURCE CODE: UR/0286/65/000/016/0056/0056

AUTHORS: Leybov, E. A.; Kurochkin, Yu. M.; Avilov, V. Ye.; Zhironkin, V. P.; Pleshkova, L. Ye.

ORG: none

TITLE: Vacuum-sealed high-voltage electromagnetic relay [announced by Organization of the Leningrad SNKh (Organizatsiya Leningradskogo SNKh)] Class 21, No. 173845

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 56

TOPIC TAGS: electromagnetic equipment, relay system, contact stress

ABSTRACT: This Author Certificate presents a vacuum-sealed high-voltage electromagnetic relay. The relay coil together with the contact system is placed inside an evacuated tube (see Fig. 1). The relay is set on a bantam mount. The design is intended to increase the wear resistance of the contacts and to reduce the size of the relay. The relay armature is attached to an omega-shaped laminated spring fastened to the frame of the electromagnet. This arrangement, together with the contact springs, is located in the upper part of the relay frame.

Card 1/2

UDC: 621.318.56.027.3

L 8172-66
ACC NR: AP5024993

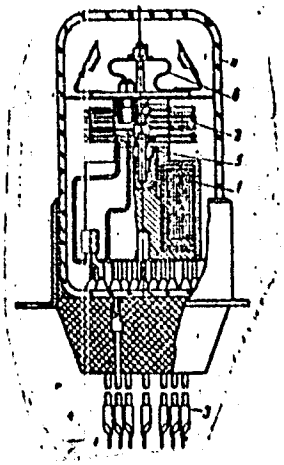

Fig. 1. 1- electromagnet coil; 2- contact system; 3- bantam mount; 4- tube; 5- armature; 6- omega-shaped laminated spring

Orig. art. has: 1 figure.

SUB CODE: EE/ SUBM DATE: 06Feb64

Card 2/2

[redacted]

Avilov-Zarnavich, N. V. - "Testing the E -4 electric drill [illegible]," Zavod. Novocherkas. Politekh. In-ta im. Ordzhonikidze, Vol. XVIII, 1948, pp. [illegible].

SO: U-3050, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

1. AVILOV-KARNAUKHOV, B. N.

2. USSR (600)

4. Electric Power

7. Remarks to Eng. P. P. Porokhnya's letter, Prom. energ., 9, No. 11, 1952.

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

1. AVILOV-KARNAUKHOV, B. N.

2. USSR (600)

4. Electricity in Mining

7. Demand and load coefficients of transformers of underground section sub-stations. Ugol' 27 no. 12, 1952.

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

USSR/Physics - Energy Consumption 1 May 52

"Investigation of Mechanisms According to Energy Characteristics," B. N. Avilov-Karnaukhov

"Dok Ak Nauk SSSR" Vol LXXXIV, No 1, pp 25-28

Subject characteristics are important for analyzing and standardizing energy consumption (cf. V. I. Veyts, "Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 11, 1549, 1946); thus it is possible to det the most probable value of such basic indices as friction or resistance coeffs in the operating part of a mechanism and to compare qualities of mechanisms or their modification. Discusses the indices of operation under normal conditions of use in the case of scraper conveyers type ST_2-11 set up in a mining drift (data according to the "Kavelektromontazh" Trust, in form of output (tons/hour) versus power. Submitted by Acad A. V. Vinter 5 Mar 52.

224T92

AVILOV-KARNAUKHOV, B.N.

224T92

AVILOV-KARNAUKHOV, B.N., professor, doktor tekhnicheskikh nauk.

Distribution curves representing daily energy consumption in coal mines. Nauch. trudy MPI 26:350-354 '55. (MLRA 9:12)
(Coal mines and mining) (Electricity in mining)

AVILOV-KARNAUKHOV, B.N.

Investigating the energy consumption of electric drives in case of continuous performance of mechanisms. Trudy NPI 33:21-25 '56.
(MLRA 10:9)
(Machinery--Electric driving)

AVILOV-KARNAUKHOV, S.N., doktor tekhnicheskikh nauk, professor.

Calculating electric power for Donets Basin coal mines with correlation functions. Elektrichestvo no.4:60-64 Ap '57.
(MLRA 10:5)

1.Novocherkasskiy politekhnicheskiy institut im. Ordzhonikidze.
(Electricity in mining)

AVILOV-KARNAUKHOV, Boris Nikolayevich, doktor tekhn.nauk, prof.; KAYALOV, Georgiy Mikhaylovich, kand.tekhn.nauk, dotsent; ERUSENTSOV, Leonid Vasil'yevich, assistent; SHALYGIN, Igor' Vladimirovich, assistent

Devices for studying the long-term processes. Izv. vys. ucheb. zav.; elektromekh. 3 no.7:92-98 '60. (MIRA 13:9)

1. Zaveduyushchiy kafedroy elektrifikatsii promyshlennykh predpriyatiy Novocherkasskogo politekhnicheskogo institut (for Avilov-Karnaukhov). 2. Novocherkasskiy politekhnicheskiy institut (for Kayalov). 3. Kafedra elektrifikatsii promshlennykh predpriyatiy Novocherkasskogo politekhnicheskogo institut (for Erusentsov). 4. Kafedra elektrifikatsii promyshlennykh predpriyatiy Novocherkasskogo politekhnicheskogo institut (for Shalygin).
(Recording instruments)

AVILOV-KARNAUKHOV, Boris Nikolayevich, doktor tekhn. nauk, prof.

Electric power calculations for coal mines. Izv. vys. ucheb. zav.; elektromekh. 6 no.12:1309-1323 '63. (MIRA 17:1)

1. Zaveduyushchiy kafedroy elektrifikatsii promyshlennykh predpriyatiy, rektor Novocherkasskogo politekhnicheskogo instituta.

AVILOV-KARMAUKHOV, Boris Nikolayevich, doktor tekhn.nauk,prof.

Power characteristics of coal mines. Izv.vys.ucheb.zav.; elektromekh. 7 no.1:60-72 '64. (MIRA 17:9)

1. Zaveduyushchiy kafedroy elektrooborudovaniya promyshlennykh predpriyatiy i rektor Novocherkasskogo politekhnicheskogo instituta.

AVILOV-KARNAUKHOV, B.N.; BOGUSH, A.G.; BOLYAYEV, I.P.; GIRIS, A.F.; DROZDOV, [illegible]; KAYALOV, G.M.; MIRONOV, Ye.P.; MIKHAYLOV, D.I.; SEKRETEV, D.I.; SINEL'NIKOV, Ye.M.; CHERNYAVSKIY, F.I.

An outstanding scientist; on professor A.G.Beliavskii's 80th birthday. Izv.vys.ucheb.zav.; elektromekh. 7 no.11:1399-1400 '64. (MIRA 18:3)

L 22425-66 EWT(d)/EWP(k)/EWP(l)
ACC NR: AP6013623 SOURCE CODE: UR/0105/65/000/009/0089/0090

AUTHOR: Avilov-Karnaukhov, B. N.; Baturo, V. I.; Bakhvalov, Yu. A.; Bogush, A. G.; Bolyayev, I. P.; Gikis, A. F.; Drozdov, A. D.; Kayalov, G. M.; Kleymenov, V. V.; Kolesnikov, E. V.; Malov, B. I.

ORG: none

TITLE: Honoring the 60th birthday of Professor Yefim Markovich Sinel'nikov

SOURCE: Elektrichestvo, no. 9, 1965, 89-90

TOPIC TAGS: academic personnel, electric engineering personnel, computer research

ABSTRACT: Professor Sinel'nikov was born 11 May 1905 in Yekaterinoslav (now Dnepropetrovsk) in the family of a clerk. Following his graduation from the Khar'kov Electrical Engineering Institute in 1930 he was appointed chief of the Technical Division on Electric Drive at the Khar'kov Electrical Machinery Plant. Subsequently he was appointed research engineer at the Vol'ta Plant and later on transferred to Moscow, to the Institute of Experimental Medicine, while at the same time he continued his studies. In 1946 he started working as a senior scientific researcher at the All-Union Electrical Engineering Institute. Since September 1953 Professor Sinel'nikov has been working at the Novocherkassk Polytechnic Institute. At present he is head of the Chair of

Card 1/2 UDC: 621.313

L 22425-66
ACC NR: AP6013623

Electrical Machinery, Apparatus, and Computers and Mathematical Devices. He has been instrumental in establishing the computer laboratory at this institute, where research is being performed on the problems of utilizing computer engineering in the design and calculation of electromagnetic, mechanical, and thermal processes in electrical machinery and equipment. Since 1958 Professor Sinel'nikov has been Coordinating Editor of the journal Elektromekhanika (Electromechanics) - one of the series published under the aegis of Izvestiya Vysshikh Uchebnykh Zavedeniy (News of Higher Schools). Yefim Markovich is moreover a prominent educator and the holder of many social honors and consultant to a series of industrial enterprises. For his great merits as an educator and for his scientific contributions he has been awarded the Order of Labor Red Banner. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09 / SUBM DATE: none

Card 2/2

L 23216-66 EWT(d)/EWP(k)/EWP(1)

ACC NR: AP6013582 SOURCE CODE: UR/0144/65/000/010/1181/1182

AUTHOR: Avilov-Karnaukhov, B. N.; Bogush, A. G.; Gikis, A. F.; Drozdov, A. D.; Malov, D. I.; Sinel'nikov, Ya. M.; Brusentsov, L. V.; Denisov, A. A.; Pal'shau, M. V.; Polyakov, B. A.; Chernyavskiy, F. I.; Burok, V. S.; Gordeyev, V. I.; Kazhdan, A. E.; Kovalev, V. Ye.; Kurennyy, E. G.; Potapenko, V. Ya.

ORG: none

TITLE: Professor G. M. Kayalov on the occasion of his 60th birthday and 37 years of pedagogical activities

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Elektromekhanika, no. 10, 1965, 1181-1182

TOPIC TAGS: electric engineering personnel, academic personnel

ABSTRACT: Doctor of Engineering Sciences, Professor of RIIZhT [Rostovskiy institut inzhenerov zheleznodorozhnogo transporta; Rostov Institute of Railroad Engineers], Georgiy Mikhaylovich KAYALOV was born on 26 September 60 years ago. He began his working career as a standby electrical construction worker at the Novorossiysk cement factory. In 1929 he graduated from the Novocherkassk Polytechnical Institute, and between 1928 and 1947 worked in the designing section of the "Elektroprom" trust. Sub-

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L 23216-66
ACC NR: AP6013582

sequently, he joined the Rostov department of the GPI /Gosudarstvennyy proyektnyy institut; State Designing Institute/ "Tyazhpromelektroproyekt" where he advanced from a technician of the designing department to its chief engineer. From 1933 to 1962 he was docent of the department of electrification of industrial enterprises of the NPI /Novocherkasskiy politekhnicheskiy institut imeni Sergo Ordzhonikidze; Novocherkassk Politechnic Institute im. Sergo Ordzhonikidze/; he taught as professor until 1965 and presently is a professor of the RIIZhT. He published more than 70 scientific works, including studies of flywheel-containing electric motors, investigations of electrical loads of industrial enterprises, analyses of basic features of real load graphs, (including their probabilistic modeling), proposals for peak load calculation methods (based on the theory of mass servicing) and developments of methods for the calculation of extremal loads of heavy consumers, for the study of random graphs of reactive loads, for the evaluation of electric load fluctuations, and the like. G. M. KAYALOV was also active in the Party, professional, and scientific organizations. He is a holder of the "For Outstanding Work During the Great Patriotic War of 1941-1945 gg." medal and the "Badge of Honor" decoration. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09, 05 / SUBM DATE: none

Card 2/2 RB

L 27947-66

ACC NR: AP6017709 SOURCE CODE: UR/0105/66/000/001/0086/0086

AUTHOR: Avilov-Karnaukhov, B. N.; Bol'sham, Ya. M.; Veniktov, V. A.; Volobrinskiy, S. D.; Yermilov, A. A.; Konstantinov, B. A.; Knyazevskiy, B. Ye.; Minin, G. P.; Miller, G. R.; Mukoseyev, Yu. L.; Petrov, I. I.; Serbinovskiy, G. V.; Syromyatnikov, I. A.; Fedorov, A. A.; Kholmskiy, G. V.; Shagalov, A. S.; Chillikin, M. G.

ORG: none

TITLE: Prof. Georgiy Mikhaylovich Kayalov (on his 60th birthday)

SOURCE: Elektrichestvo, no. 1, 1966, 86

TOPIC TAGS: academic personnel, electric engineering personnel, electric equipment

ABSTRACT: In 1929, G. M. Kayalov completed the electrotechnical department of the Mechanical Faculty of the Novocherkassk Polytechnical Institute. Until 1947, he worked in the planning department of the Rostov Division of the All-Union Electrotechnical Union. In this time, he rose to the position of Chief Engineer. He directed the planning of a large number of important pieces of electrical equipment for various projects. He was active in the postwar restoration of many important industrial enterprises. He is the author of almost 70 published works, and has made a great contribution to modern, scientifically based methods of design and analysis of electrical loads for industrial equipment. He is on a number of commissions and in many scientific and technical societies. Orig. art has: 1 figure. [JPRS]

SUB CODE: 09 / SUBM DATE: none

Card 1/1 BLG UDC: 621.31

L 33115-66

ACC NR: AP6024083 SOURCE CODE: UR/0144/66/000/002/0235/0236

AUTHOR: Zav'yalov, A. S.; Get'man, A. A.; Molchanov, V. D.; Krasyuk, N. P.; Agranovskiy, K. Yu.; Berger, A. Ya.; Greyer, L. K.; Yenakov, V. P.; Miller, Yo. V.; Fyatman, K. I.; Abryutin, V. N.; Gubanov, V. V.; Oranskiy, M. I.; Yevseyev, M. Ye.; Morkin, G. B.; Sinol'nikov, Ye. N.; Avilov-Karnauldiov, B. N.; Bogush, K. G.; Bolyayev, I. P.; Fokker, I. I.; Chernyavskiy, F. I.

ORG: none

TITLE: O. B. Bron (on his 70th birthday)

SOURCE: IVUZ. Elektromekhanika, no. 2, 1966, 235-236

TOPIC TAGS: electric engineering personnel, circuit breaker

ABSTRACT: Osip Borisovich Bron was born in 1896 in Klintsi. In 1920, he graduated from the physics-math faculty of Khar'kov Technological Institute. He became a professor in 1930. He defended his doctor's thesis in 1940. During the second world war, he was in the navy. After demobilization in 1950, Engineer Colonel Bron went to work teaching at the Leningrad Industrial Correspondence School. He became the head of the Chair of Theoretical Bases of Electrical Technology in 1958. He is closely associated with scientific and development work, and has cooperated closely in this area with the Leningrad "Elektrosila" plant since 1946. His work has been in the areas of spark-damping and high-power circuit breakers. He has published over 140 scientific works and 19 inventions. [JPRS]

SUB CODE: 05, 09 / SUBM DATE: none

Card 1/1

L 11239-66 EWT(d)/EWT(l)/EWP(m)/EWP(w)/EPF(n)-2/EWP(v)/T-2/EWP(t)/EWP(k)/EWP(b)/
ACC NR: AP5024912 EWA(h)/EPC(n)-6 JD/WW/JG/EM UR/0382/65/000/003/0121/0126

AUTHOR: Avilova, E.M.; Doktorova, T.V.; Lutikov, V.K.; Marin, N.I.; Povsten', V.A.; Turchin, N.M.

ORG: None

34
B

TITLE: Design features and test results of conductional pumps

SOURCE: Magnitnaya gidrodinamika, no. 3, 1965, 121-126

TOPIC TAGS: magnetohydrodynamic pump, electromagnetic pump design, unipolar generator

ABSTRACT: Design features of several conductional (direct current electromagnetic induction) pumps developed by the authors are described. Results of tests and comments on actual use are also given. A unipolar direct current generator developed as a better power source for one of the pump types is also described. The larger electromagnetic induction pump operating on the principle of DC current conductance in a perpendicular steady magnetic field was designed to pump liquid metals, such as Na and the NaK alloy at temperatures of 850 - 1050°K. It delivers a metal flow of 7,000 cubic centimeters per second. The pump requires 10000 amperes at .6 volt, and has a winding of two turns of an (80x80)mm^2 cross-section. Details of the working section, pressure dependence upon flow at various current magnitudes, and the efficiency variation data are given. A maximum efficiency of 36% was attained at 6000 amperes and 6000 cm^3/sec.

Card 1/2

UDC 538.4:621.689

L 11239-66

ACC NR: AP5024912

The rectifiers usually used as power supply for these pumps (type ND 10000/5000 and ANG 5000/2500) require an exorbitantly large floor space; this led to the development of a compact unipolar generator of 11 kw d.c. power (15,000 amperes, .7 volt), with liquid metal (mercury) brushes. A description and a schematic drawing of the generator is given. In tests, the generator achieved an efficiency of 76%. For smaller liquid metal flows, of several cubic centimeters per second, - helical channel conductional pumps are quite appropriate. They have been designed to deliver e.g. 2 cm^3/sec. of liquid metal at 800°K, using a current of only 100 - 200 amperes. Therefore, their power requirements can be supplied by small compact rectifiers. The simplicity and reliability of these pumps recommend them for use e.g. in laboratories. Orig. art. has 7 figures.

SUB CODE: 13, 09/ SUBM DATE: 26Jan65/

JB

Card 2/2

[redacted], I.P.; [redacted], L.N.; AVILOVA, G.G.

Materials on the toxicological characteristics of tetrachloroundecane. Toks. nov. prom. khim. veshch. no.5:80-89 '63. (MIRA 17:9)

ULANOVA, I.P.; SAKOYLOVA, L.N.; KARAVAYEVA, E.V.; AVILOVA, G.G.

Toxicology of chloropelargonic acid condensation aerosols.
Toks. nov. prom. khim. veshch. no.5:89-100 '63. (MIRA 17:9)

AVILOVA, I.V.; NORMAN, G.E.

Decrease of potential of electron detachment from negative ions in a plasma. Teplofiz. vys. temp. 2 no.4:517-524 Jl-Ag '64. (MIRA 17:9)

1. Moskovskiy energeticheskiy institut i Nauchno-issledovatel'skiy institut vysokikh temperatur.

AVILOVA, L.D.

Heat resistance of the epidermal cells of albino, green, and etiolated sunflower plants. TSitologiia 4 no.1:73-76 Ja-F '62. (MIRA 15:4)

1. Kafedra fiziologii rasteniy i genetiki Rostovskogo-na-Donu universiteta.
(HEAT--PHYSIOLOGICAL EFFECT) (PLANT CELLS AND TISSUES)
(SUNFLOWERS)

AVILOVA, L.D.; MATUKHIN, C.R.

Effect of Cl^- and SO_4^{--} on the accumulation and distribution of nucleic acids in the root cells of the sunflower. Bot. zhur. 49 no.9:1335-1338 S '64. (MIRA 17:12)

1. Rostovskiy gosudarstvennyy universitet.

Avilova, M.K.

Micromethod of determination of the decomposition temperature of ammonium nitrate. E. T. Slepchenko and [illegible] Avilova. Nitrogen-Fertilizer Plant, Dneprodzerzhinsk. Zavod. Lab. 21, 402-3(1955).—A 50-mg. sample of NH_4NO_3 is placed in a test tube, the test tube placed in an electrically heated Al block and connected by a rubber hose to a manometer. The block is heated at the rate of 10°/4 min. There is a sudden jump in temp. at the decompn. point.

W. M. Sternberg

SOV/64-59-3-19/24

28(5)

AUTHORS: Ovcharenko, D. G., Golovko, A. F., Vosvilov, N. M., Avilova, M. K.

TITLE: Experiment of Applying a Column of the Ammonia Synthesis With a Top GIAP-DATZ (Opyt ekspluatatsii kolonn sinteza ammiaka s nasadkoy GIAP-DATZ)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 3, pp 82-85 (USSR)

ABSTRACT: Until recently the Dneprodzerzhinskiy azotnotukovyy zavod (Dneprodzerzhinsk Nitrogen Fertilizer Works) used a supplemented attachment according to Fauser with two tubular heat exchangers and a secondary pipe for supplying cold gas (Fig 1). It was found out however, that this attachment does not offer optimum temperature conditions. In 1950 a new type of attachment was developed in the GIAP by S. S. Lachinov and constructed in the DATZ in two constructional types (Fig 2). The attachment has two heat exchangers in the catalyst chamber, and 2 secondary pipes for the supply with cold gas, and it is called GIAP-DATZ (abbr. GD-2). Some data are given on the application of a column (D = 0.85, H = 14 m) with a attachment GD-2 and iron catalysts with two accelerators (K_2O and Al_2O_3).

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Experiment of Applying a Column of the Ammonia Synthesis With a Top GIAP-DATZ

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The results achieved after 1- and 6 months of its application (Table 1) show that Δ % NH_3 $\approx$ 12.5 (Δ NH_3 = difference in % of the NH_3 content before and after the column) and the maximum capacity amount to 120-125 t/day, while it only was 100 t/day with the old type. Corresponding experiments were carried out in order to examine the effect of the second secondary pipe for cold gas on the increase of the capacity after one year, the results are given (Table 2). A column with an attachment GD-2 can work very stably, also with a gas supply up to 30% through the second secondary cold gas pipe, this caused an increase in the capacity by 70%. Examinations carried out during 20 days on a column which already had worked for 1.5 months showed (Table 3) that 140 t NH_3/day are yielded with Δ %NH_3 $\approx$ 13 and with a gas circulation of about 70,000 Nm^3/hour, with the attachment GD-2 on the active catalyst. There are 2 figures and 3 tables.

Card 2/2

NESTEROVA, G.V.; KONDAKOV, Yu.N.; AVILOVA, N.S.

Differentiated trap intrusion in the middle Vilyuy Valley. Geol. i geofiz. no.7:43-51 '65. (MIRA 18:9)

1. Institut geokhimii Sibirskogo otdeleniya AN SSSR, Irkutsk.

AVILOVA, O.M. (Kiyev-52, Belorusskaya ul., d.17, kv.12)

Thymomas. Grudn. khir. 4 no.5:113-115 S-O'62 (MIRA 17:3)

1. Iz kafedry grudnoy khirurgii (zav. - prof. N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey (dir. dotsent M.N. Umovist).

AVILOVA, O.M., kand.med.nauk (Kiyev, ul. Belorusskaya, d.17, kv.12)

Surgical treatment of chronic suppurative diseases of the lungs in children. Nov.khir.arkh. no.1:17-23 '62. (MIRA 15:8)

1. Kafedra torakal'noy khirurgii (zav. - prof. N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey i torakal'noye otdeleniye bol'nitsy Shevchenkovskogo rayona Kiyeva.
(LUNGS--DISEASES)

AVILOVA, O.M., kand.med.nauk (Kiyev, Belorusskaya ul., d.17, kv.12); DENISENKO, L.V.

Diagnosis and surgical treatment of bronchial adenomas. Vest.khir. no.6:37-41 '62. (MIRA 15:11)

1. Iz kafedry torakal'noy khirurgii (zav. - prof. N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey i torakal'nogo otdeleniya bol'nitsy (gl. vrach - N.I. Begunova) Shevchenkovskogo rayona.

(BRONCHI—TUMORS)

AVILOVA, O.M. (Kiyev, ul. Belorusskaya, d. 17, kv. 12)

Treatment of pleural empyema in children by the method of decortication. Grud. khir. 5 no.6:86-91 N-D'63 (MIRA 17:2)

1. Iz kafedry grudnoy khirurgii (zav. - prof. N.M.Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey.

AVILOVA, O.M., kand. med. nauk

Suture of the main bronchus in its rupture. Khirurgiia 38 no.12:19-23 D '62. (MIRA 17:6)

1. Iz kafedry torakal'noy khirurgii (zav.- prof. N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey (direktor-dotsent M.N. Umovist) i torakal'nogo otdeleniya bol'nitsy Shevchenkovskogo rayona (glavnyy vrach N.I. Begunova).

AVILOVA, O.M. (Kiyev, Belorusskaya ul., d.17, kv.12)

Single-stage resection and ev[illegible]pleural plastic surgery of the esophagus by stomach transplantation. Grud. khir. 6 no.5:96-102 S-O '64. (MIRA 18:4)

1. Kafedra grudnoy khirurgii (zav. - prof. N.M.Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey.

[redacted], S.M., Kand. med. nauk

Two cases of ligation of the azygos vein during a hemorrhage. Khirurgiia 40 no.1:137-138 Ja '64.

(MIRA 17:11)

1. Kafedra gospital'noy khirurgii (zav. - chlen-korrespondent AMN SSSR prof. N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey.

AVILOVA, O.M.

Bronchial adenomas; clinical aspects and treatment. Vop. onk. 11 no.12:3-8 '65. (MIRA 19:1)

1. Kafedra grudnoy khirurgii i anesteziologii (zav. - chlen-korrespondent AMN SSSR prof. N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey (rektor - dotsent M.N. Umovist).

AVILOVA, T. P.

USSR/Chemistry - Emulsions Mar/Apr 52

"Solid Emulsifiers as Solid State Copper, Lead, and Zinc Sulfides," T. P. Avilova, Ural State [illegible]

"Kolloid Zhur" Vol XIV, No 2, pp 103-106

Proved that powders capable of forming structures and restoring emulsifiers, i.e., those which can go over into the boundary of the phases and form a protective layer (cf. Clayton). Within a certain range of wetting capacity, a substance without

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of electrolyte can stabilize both straight and reversed emulsions, depending on the thickness of the film liquid, and of preliminary stirring on the position of dispersion and of the curve of particle distribution. The the emulsion according to size is const. This can be explained by a connection between the particles of the of the drops of emulsion and the deg of dispersion powder stabilizing them, whose deg of emulsification changes little during the time of

216T12

AVILOVA, T. P.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

Solidus of copper, lead, and zinc as solid emulsions.
B. G. Mokrushin and T. P. Avilova. *Colloid J. (U.S.S.R.)* 14, 113-17(1952)(Engl. translation). See C.A. 46, 5930f.
H. L. H.

(U) Chem

9-2-54

MOKUSHIN, S.G.; AVILOVA, T.P.

Sulfides of copper, lead, and zinc as solid emulsifiers. Kolloid. Zhur. 15, 208-11 '53. (MLRA 6:5)
(CA 47 no.18:9103 '53)

1. A.M.Gor'kiy State Univ., Sverdlovsk.

AVILOVA, T.P.

Sulfides of copper, lead, and zinc as solid emulsifiers. S. G. Mokrushin and T. P. Avilova. Colloid J. U.S.S.R. 15, 91 (1953)(Engl. translation).—See C.A. 47, 9103i. H. L. H.

AVILOVA, T. P.

(3)

Sulfides of copper, lead, and zinc as solid emulsifiers. S. G. Mokrushin and T. P. Avilova (A. M. Gorkii Ural State Univ., Sverdlovsk). *Kolloid. Zhur.* 16, 41-50 (1954); cf. *C.A.* **47**, 9103g; **48**, 4030f.—The frequency distribution of the particle size of water-in-oil and oil-in-water emulsions stabilized with PbS, CuS, or ZnS was detd. The salts of the stabilizing metal ($Pb(OAc)_2$, $CuSO_4$, and $ZnSO_4$, resp.) made the emulsions more nearly monodisperse without affecting the most frequent diam. (approx. 20 μ), but the dispersity of ZnS particles was lowered by $ZnSO_4$, whereas that of PbS and CuS was raised by $Pb(OAc)_2$ and $CuSO_4$, resp. The particles were chiefly 2–5 μ. NaOH coagulated emulsions stabilized with PbS rapidly, and with CuS, slowly. The dispersity of emulsions was increased by $AlCl_3$ > $BaCl_2$ > KCl, and decreased by K_2SO_4 and $K_4Fe(CN)_6$. The electrolytes affect the elec. charge of the emulsions.

J. J. Bikerman

SOV/137-58-12-23929

Translation from: Referativnyy zhurnal. Metallurgiya, 1958. Nr 12, p 4 (USSR)

AUTHORS: Avilova, T. P., Sergeyeva, A. S., Nagirnyak, F. I.

TITLE: Xanthate and Frother Adsorption on the Liquid-gas Interface (Adsorbtsiya ksantogenatov i aeroflotov na razdele faz zhidkost'-gaz)

PERIODICAL: Tr. n.-i. i proyektn. in-ta "Uralmekhanobr", 1957, Nr 1, pp 19-38

ABSTRACT: The Traube stalagmometer is used to study gas-liquid interface adsorption of frothers, xanthates (X), mixtures thereof, and mixtures of these with pine oil. It is found that X and frother adsorption by the surface of an air bubble occurs in 1 or 2 sec and that all X except ethyl show frothing properties. Butyl frother stabilizes froth even in flotation concentrations. The influence of admixtures to the X, such as alcohols, dixanthogene, carbon disulfide, thiosulfate, and inorganic substances, is investigated. In the presence of pine oil the adsorption of all the components from the solution occurs independently when concentrations are low. In the absence of pine oil X and frothers are adsorbed independent of each other

Card 1/1

L. ?

AVILOVA, T.P., kand.khimicheskikh nauk

Certain physicochemical properties of new flotation frothers. Izv. vys.ucheb.zav.; gor.zhur. no.4:120-129 '59. (MIRA 13:5)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva. Rekomendovana kafedroy khimii.
(Flotation--Equipment and supplies)

AVILOVA, T.P., kand.khimicheskikh nauk; SERGEYEVA, A.S., inzh.; NAGIRNYAK, F.I., insh.

Changes with time in the flocculating effect of flotation reagents. Izv. vys. ucheb. zav.; gor. zhur. no. 11:193-199 '60. (MIRA 13:12)

1. Sverdlovskiy gornyy institut imeni V.V. Vakhrusheva (for Avilova and Sergeyeva). 2. Institut Uralmekhanobr (for Nagirnyak). Rekomendovana kafedroy obogashcheniya poleznykh iskopayemykh Sverdlovskogo gornogo instituta.
(Flotation--Equipment and supplies)

AVILOVA, T.P., kand.khim.nauk; DOBROLYUBOVA, L.V., inzh.

Simultaneous adsorption of alcohols and xanthates on the surface of galenite. Izv.vys.ucheb.zav.;gor.zhur. 7 no.6:136-139 '64.
(MIRA 17:12)

1. Dal'nevostochnyy gosudarstvennyy universitet. Rekomendovana kafedroy neorganicheskoy khimii.

L 61727-65 EWT(m)/EPF(c)/EIP(j)/T/EWA(c) Pc-4/Pr-4/Ps-4 RPL WW/RM
ACCESSION NR: AP5013056 UR/0190/65/007/005/0831/0834
678.84

36
32
B

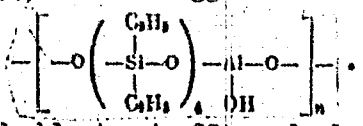
AUTHORS: Avilova, T. P.; Bykov, V. T.; Zolotar', G. Ya.

TITLE: Synthesis of a chlorinated derivative of polyorganosiloxane

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 5, 1965, 831-834

TOPIC TAGS: polymer, resin, organosilicon compound, siloxane, alumoorganosiloxane, thermal stability

ABSTRACT: The purpose of the investigation was to extend the knowledge of polyorganosiloxanes to polyalumorganosiloxanes. The starting material, polyalumodiphenylsiloxane (A), was obtained after K. A. Andrianov and T. N. Gantina, (Izv. AN SSSR. Otd. khim, n., 1956, 74). It is suggested that the structure of A is



By reacting A with activated chlorine in CCl_4 polyalumodi (chlorophenyl) siloxane (B) was obtained. The proposed structure of (B) is

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ACCESSION NR: AP5013056

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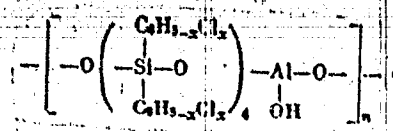

It is concluded that chlorination does not change the linear structure of the polymer and has no significant effect on the degree of polymerization. Low molecular weight polymers undergo chlorination more rapidly than high molecular weight polymers. Chlorination leads to a slight increase in the thermal stability of the polymer. The authors thank B. N. Prokop'yev and N. I. Shergina for the determination of the IR spectra. Orig. art. has: 2 tables and 3 formulas.

ASSOCIATION: Dal'nevostochnyy gosudarstvennyy universitet (Far-Eastern State University)

SUBMITTED: 11Jul64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 003 OTHER: 001

Card 2/2

A L 11524-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6001875 SOURCE CODE: UR/0190/65/007/012/2168/2170

AUTHORS: Avilova, T. P.; Bykov, V. T.; Marinin, V. P.; Shapkin, N. P.

ORG: Far-Eastern State University (Dal'nevostochnyy gosudarstvennyy universitet)

TITLE: Synthesis of chlorinated polytitaniumphenylsiloxane

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 12, 1965, 2168-2170

TOPIC TAGS: polymer, organometallic compound, organosilicon compound, organotitanium compound, chlorinated organometallic compound, thermal stability

ABSTRACT: The synthesis of a chloro-derivative of polytitaniumphenylsiloxane is described. The starting material (polytitaniumphenylsiloxane) was prepared after the method of K. A. Andrianov, T. N. Ganina, and Ye. N. Khrustaleva (Izv. AN SSSR, Otd. khim. n., 1956, 798), and the chlorination was carried out in CCl_4 solution by means of activated chlorine. The resultant mixture of chlorinated polymers was subjected to a fractionation analysis. An elemental analysis and molecular weight determination for each fraction was also carried out. The thermal stability of the initial polymer and of its chlorinated derivative, and their solubility in benzene, acetone, and CCl_4 were determined. The experimental results are presented in tables. A structure for the initial polymer and its chloro-derivative is shown by

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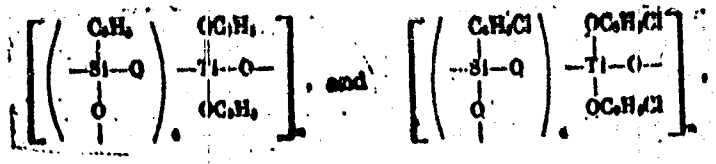
L 11524-66

ACC NR: AF6001875



The proposed structure was confirmed by IR spectroscopy. It was found that the chlorinated derivative has a slightly higher thermo-stability as compared with the initial polymer. Orig. art. has: 3 tables and 2 formulas.

SUB CODE: 07,11/ SUBM DATE: 03Feb65/ ORIG REF: 003/ OTH REF: 001

Card 2/2

AVILOVA, T.P.; BYKOV, V.T.; GLUSHCHENKO, V. Yu.; MARININ, V.P.

Synthesis of polyzirconoörganosiloxane. Vysokom. soed. 8 no. 1: 11-13 Ja '66 (MIRA 19:1)

1. Dal'nevostochnyy gosudarstvennyy universitet. Submitted February 3, 1965.

L 17716-66 EWP(j)/EWT(m)/T RM

ACC NR: AP6003407 (A) SOURCE CODE: UR/0190/66/008/001/0014/0015

AUTHORS: Avilova, T. P.; Bykov, V. T.; Kondratenko, L. A. 46 8

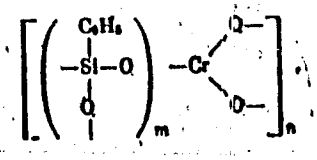
ORG: Far Eastern State University (Dal'nevostochnyy gosudarstvennyy universitet)

TITLE: Synthesis of polychromium phenylsiloxane 7,44,55

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 1, 1966, 14-15

TOPIC TAGS: polysiloxane, organometallic compound, chromium compound, polymer, organic synthetic process

ABSTRACT: Polychromium phenylsiloxane (I) was prepared in 76% yield in a manner analogous to the synthesis of polyferrophenylsiloxane [K. A. Andrianov, T. N. Ganina, N. N. Sokolov. Vysokomolek. soyed., 4, 679, 1962], using the method of exchange decomposition of phenylsodiumoxysilane with chromium potassium sulfate in aqueous alkaline solution at 78C. The product obtained was a green solid, soluble in organic solvents with a ratio of Si:Cr = 5.8 to 7.1, which corresponds to a probable structure:



Card 1/2 UDC: 541.64+678.84

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ACC NR: AP6003407 O

where m = ratio of Si:Cr, n = number of Cr in the chain. Preliminary experiments indicate that thermal stability of I is close to that of other polymetalloorganic siloxanes. Orig. art. has: 2 tables and 1 structure.

SUB CODE: 07/ SUBM DATE: 03Feb65/ ORIG REF: 001

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