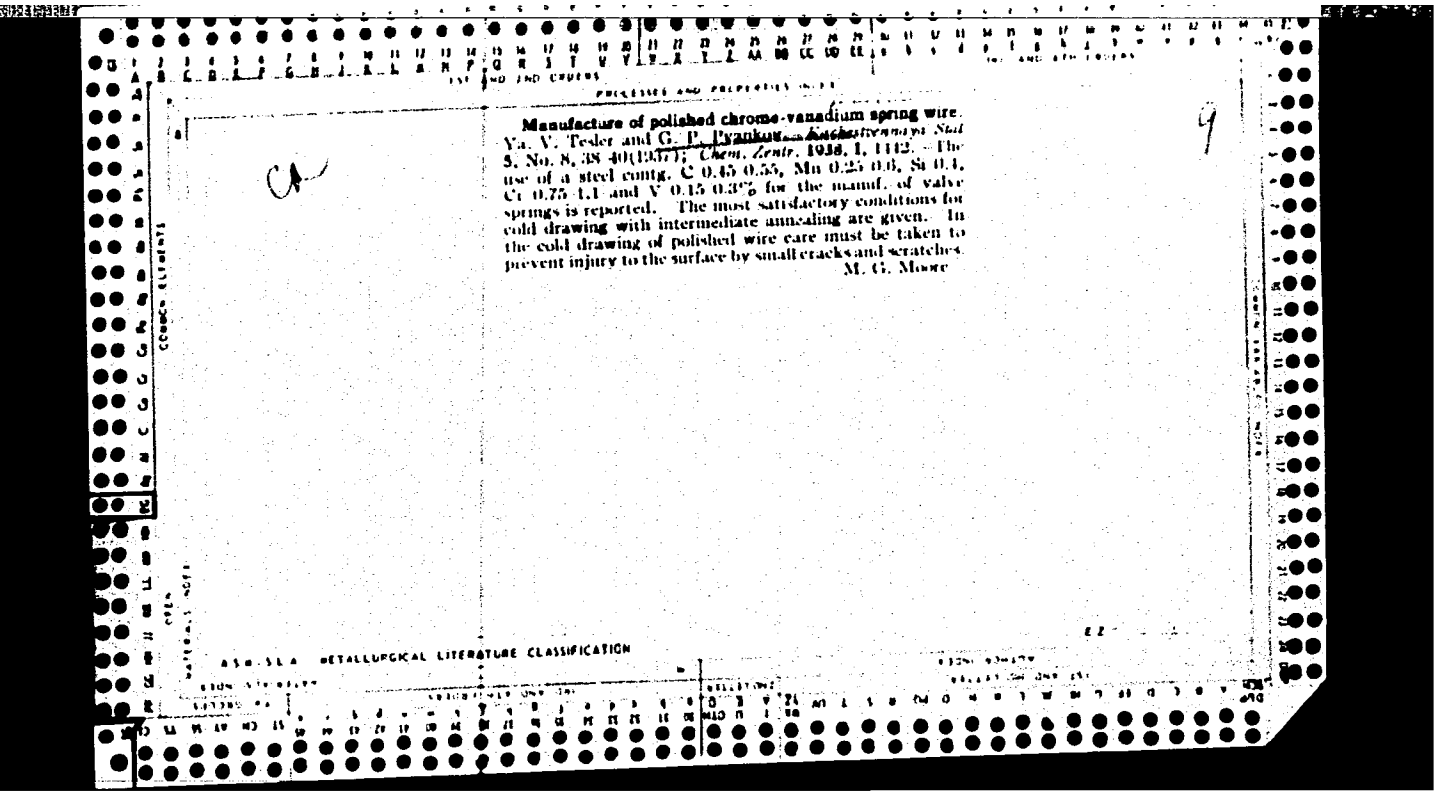
GABOVICH, M.D. [Habovych, M.D.]; P'YANKOV, G.N. [P'iankov, H.N.]

Critical effect of the geometric dimensions of a high-frequency proton source system on the current intensity of an ion beam. Ukr. fiz. zhur. 3 no.3:419-421 My-Je '58. (MIRA 11:10)

1. Institut fiziki AN USSR.
(Protons) (Ion beams)



Manufacture of polished chrome-vanadium spring wire. Ya. V. Tesler and G. P. Ivankov. *Kachestvennaya Stal* 5, No. 8, 38-40(1937); *Chem. Zentr.* 1938, I, 1112.—The use of a steel contg. C 0.45-0.55, Mn 0.25-0.6, Si 0.1-0.4, Cr 0.75-1.1 and V 0.15-0.3% for the manuf. of valve springs is reported. The most satisfactory conditions for cold drawing with intermediate annealing are given. In the cold drawing of polished wire care must be taken to prevent injury to the surface by small cracks and scratches.
M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VOLKOV, Yu.I., inzh.; GAFANOVICH, A.A., kand.tekhn.nauk; GLADKOV, N.G., kand.sel'skokhoz.nauk; GORKUSHA, A.Ye., agr.; ZHITNEV, N.F., inzh.; ZANIN, A.V., kand.tekhn.nauk; ZAUSHITSYN, V.Ye., kand.tekhn.nauk; ZVOLINSKIY, N.P.; ZEL'TSERMAN, I.M., kand.tekhn.nauk; KAIPOV, A.N., kand.tekhn.nauk; KASPAROVA, S.A., kand.sel'skokhoz.nauk; KOLOTUSHKINA, A.P., kand.ekon.nauk; KRUGLYAKOV, A.M., inzh.; KURNIKOV, I.I., inzh.; LAVRENT'YEV, L.N., inzh.; LEBEDEV, B.M., kand.tekhn.nauk; LEVITIN, Yu.I., inzh.; MAKHLIN, Ye.A., inzh.; NIKOLAYEV, G.S., inzh.; POLESHCHENKO, P.V., kand.tekhn.nauk; POLUNOCHEV, I.M., agr.; P'YANKOV, I.P., kand.sel'skokhoz.nauk; RABINOVICH, I.P., kand.tekhn.nauk; SOKOLOV, A.F., kand.sel'skokhoz.nauk; STISHKOVSKIY, A.A., inzh.; TURBIN, B.G., kand.tekhn.nauk; CHABAN, I.V., inzh.; CHAPKEVICH, A.A., kand.tekhn.nauk; CHERNOV, G.G., kand.tekhn.nauk; SHMELEV, B.M., kand. tekhn.nauk; KRASNICHENKO, A.V., inzh., red.; KLETSKIN, M.I., inzh., red.; MOLYUKOV, G.A., inzh., red.; BLAGOSKLONOVA, N.Yu., inzh., red.; UVAROVA, A.F., tekhn.red.

[Reference book for the designer of agricultural machinery in two volumes] Spravochnik konstruktora sel'skokhozialstvennykh mashin v dvukh tomakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry. Vol.1. 1960. 655 p. (MIRA 13:11)
(Agricultural machinery--Design and construction)

BATYGIN, S.V.; BRAGINSKIY, R.P. [Brahina'kyi, R.P.]; [illegible]
[P'iankov, H.V.]; YARMILKO, Ye.G. [IArmilko, O.H.]; KABACHI, A.M., doktor khim. nauk

Use of high-energy radiation for the improvement of the operational characteristics of polymeric materials. Khim. prom. no.4:3-6 O-D '64. (MIRA 18:3)

P'YANKOV K.I.

LINYAK, G.I.; KURCHIK, Ya.I.; P'YANKOV, K.I., retsenzent; KUTENKOVA, G.M., tekhn.red.

[New method of warming frozen ground] Novyi metod otogreva merzlykh gruntov. Sverdlovsk, TSentr. biuro tekhn. inform., 1957. 11 p. (Frozen ground) (MIRA 11:5)

P'YANKOV,N.

Livestock yards of a modern meat combine. Mias.ind.SSSR 26 no.4:37 '55. (MLRA 8:10)

1. Starshiy zootekhnik Leningradskogo myasokombinata
(Slaughtering and slaughter houses)

P'YANKOV, N., DVORIKOV, N.

Cattle - Grading

They achieved positive results. Mias. ind. 23 No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952 UNCLASSIFIED.

P'YANKOV, N.A.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Natural Gases and Petroleum. Motor Fuels. Lubricants, I-13

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62604

Author: P'yankov, N. A.

Institution: None

Title: Experience with a Short-Cut Procedure of Petroleum Investigation Under Conditions of Its Occurrence Without the Use of Mercury

Original Periodical: Sb. Vopr. neftyanogo proiz-va, Molotov, Knigoizdat, 1955, 72-74

Abstract: For the determination of basic characteristics of the petroleum of petroleum-bearing strata (pressure, saturation, density, viscosity and gas-saturation) in lieu of mercury was utilized a saturated solution of common sant in conjunction with the conventional equipment utilized for this purpose. The proposed method has certain defects and for this reason the author recommends it only for the transfer of deep level samples from sample-collectors to containers and for preliminary investigations.

Card 1/1

P'YANKOV, N.A. Cand Chem Sci -- (diss) "Phys-chem characteristics of petroleums and petroleum gases of the Molotov Prikam'ye and ~~of~~ the ~~systematic~~ laws of changes in their ~~characteristics.~~ properties." Molotov, 1957. 20 pp 20 cm. (Molotov State Univ im A.M. Gor'kiy). 100 copies. (KL, 23-57, 109).

-2- 21

P'YANKOV, N.A.

Regularities of changes in petroleum properties of the Kama Valley. Neft.khoz. 34 no.10:41-45 O '56. (MLRA 9:11)
(Kama Valley--Petroleum)

P'YaNKOV, I.A.

Exchange of experience in making topographic plans.
Geod.i kart. no.5:62-63 My '60. (MIRA 13:7)
(Cartography)

p YANKOV, K.I., inzh.

Conference on the problem of eliminating heavy manual labor in construction. Mekh. stroi. 20 no.6:28-29 Je '63. (MIRA 16:5)
(Construction equipment—Congresses)

SOV/137-58-7-15494

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 224 (USSR)

AUTHORS: Pyankov, N.N., Graf, E.K., Potapov, V.P.

TITLE: A Method for Combatting Corrosion of the Underground Equipment of Wells in the Krasnokamsk Oilfield (Metod bor'by s korroziyey podzemnogo oborudovaniya skvazhin na Krasnokamskom nefte promysle)

PERIODICAL: Novosti neft. tekhn. Neftepromysl. delo, 1957, Nr 9, pp 26-29

ABSTRACT: A combination of measures taken at the Krasnokamsk oil field for combatting corrosion (C) of equipment is described. An increase in C of underground equipment of the wells was caused by the appearance of O_2 in entrained gas caused by the pumping of air into the collectors holding sulfide oil with an admixture of H_2S. Measures taken against C consisted of cleansing of the products of C of the inner surface of casings and of the outer surface of pump and pressure pipes and the coating of the cleansed surfaces with a mixture of petrolatum with Krasnokamsk oil and paraffin waste. Designs of devices for the cleansing and coating of the pipes are described. The abovedescribed methods of prevention have considerably decreased but not completely eliminated C of pumps and pipes; inhibitors must be used.

Z.F.

Card 1/1

1. Petroleum industry--Equipment 2. Industrial equipment--Corrosion 3. Pipes-Cleaning 4. Anticorrosive coatings--Materials

P'YANKOV, P.I.

Treatment of typhoid fever with various doses of chloromycetin and syntomycin (continuous method). Sov.med. 26 no.1:65-69 Ja '63. (MIRA 16:4)

1. Iz kliniki infektsionnykh bolezney (zav. - dotsent V.I. Rabinovich) Permskogo meditsinskogo instituta. Nauchnyy rukovoditel' - zav. kafedroy infektsionnykh bolezney 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova prof. K.V.Bunin.
(TYPHOID FEVER) (CHLOROMYCETIN) (ACETAMIDE)

TYUKINA, A.F., kand.med.nauk; PIYANKOV, S.M.

Significance of cold and moisture in the development of obliterating diseases of the vessels in the extremities. Sov.med. 28 no.11:91-95 N '65. (MIRA 18:12)

1. Klinika obshchey khirurgii (zav. - prof. G.A.Orlov) Arkhangel'skogo meditsinskogo instituta.

P'YANKOV, S. M.

P'YANKOV, S. M. : "Theoretical and experimental investigations of pressure equipment for atomizing liquid fuel (heavy mazut)." Min Railways USSR. Moscow Order of Lenin and Order of Labor Red Banner Inst of Railroad Transport Engineers imeni I. V. Stalin. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science.)

Knizhnaya letopis', No. 31, 1956. Moscow.

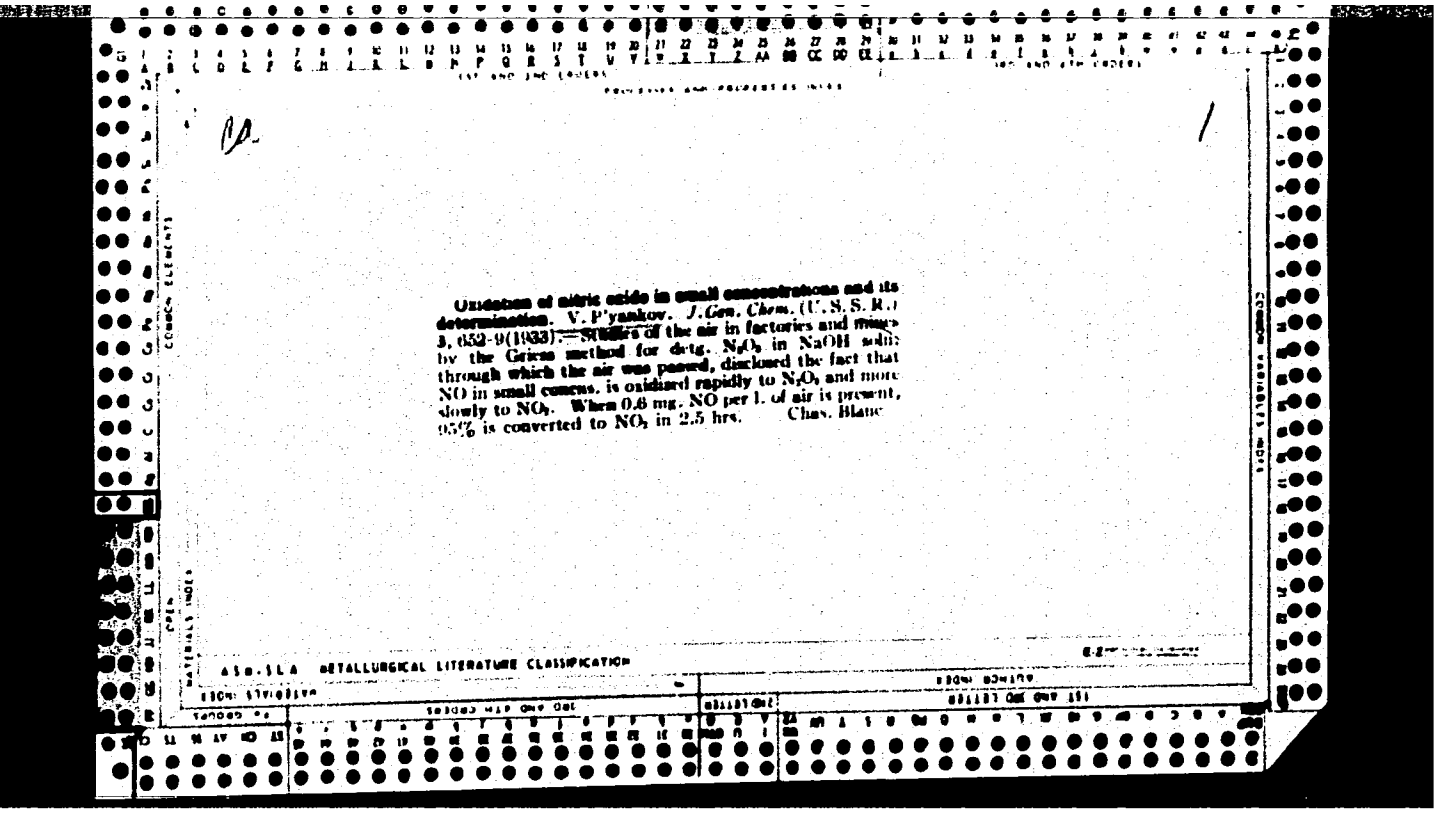
P'YANKOV, V.

Electric shovel for cutting polyisobutylene. Neftianik 6 no.4:20 Ap '61. (MIRA 14:8)
(Propene)

P'YANKOV, V.

TKACHENKO, V.

"In new Rumania." Vl.P'iankov, P.Mel'nikov. Reviewed by V.Tkachenko. Vokrug sveta no.6:61-62 Je '54. (MLRA 7:6)
(Rumania--Description and travel) (P'iankov, Vl.) (Mel'nikov, P.)



Oxidation of nitric oxide in small concentrations and its determination. V. P'yankov. *J. Gen. Chem.* (U. S. S. R.) 3, 652-9(1933).—Studies of the air in factories and mines by the Griess method for detg. N_2O_3 in NaOH solns. through which the air was passed, disclosed the fact that NO in small concns. is oxidized rapidly to N_2O_3 and more slowly to NO_2. When 0.8 mg. NO per l. of air is present, 95% is converted to NO_2 in 2.5 hrs. Chas. Blanc

A10.11A METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

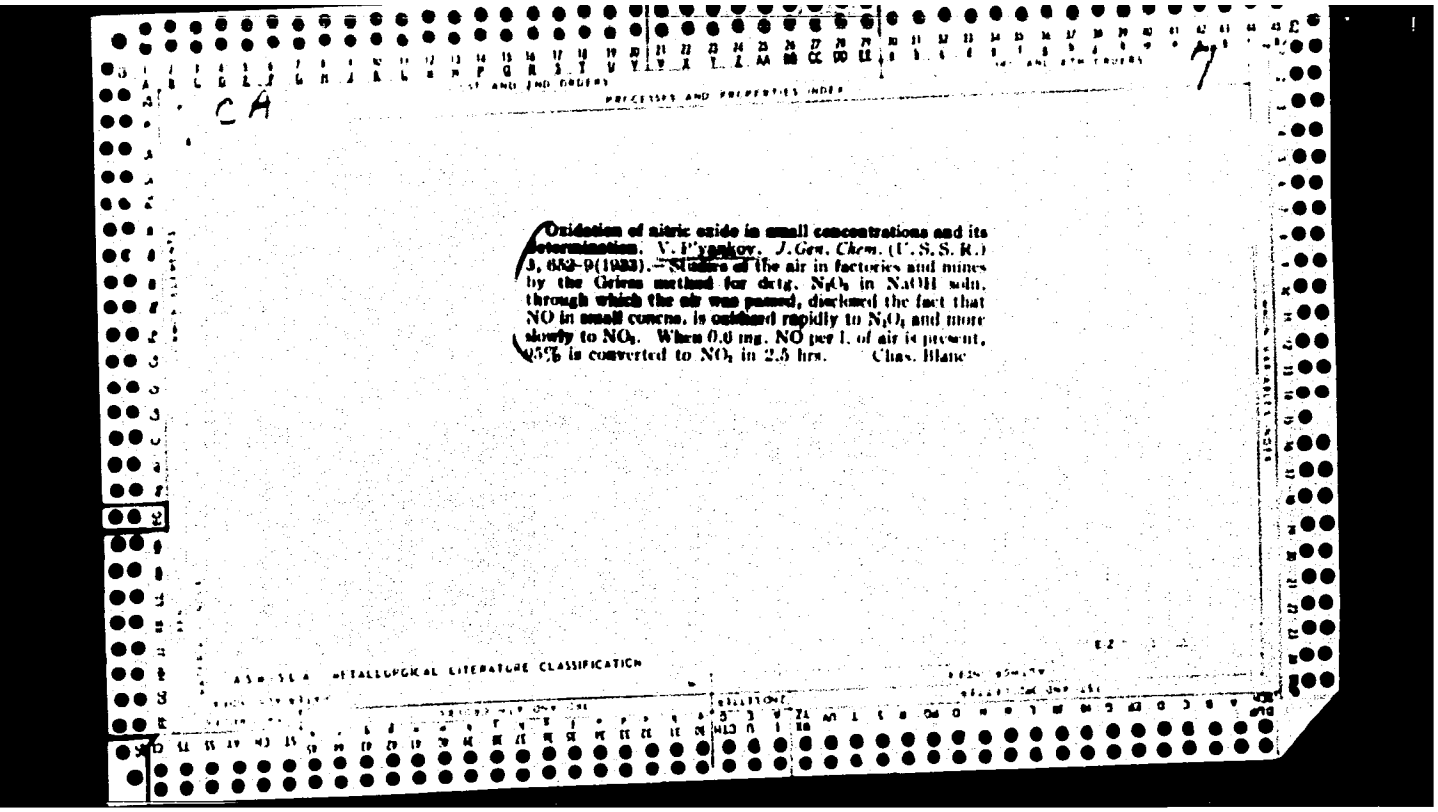
Ca

2

Velocity of the reaction between hydrogen sulfide and some metal oxides. V. [illegible] and F. Drushinin (Donets Ind. Inst.). *J. Applied Chem. (U.S.S.R.)* 20, [illegible]-4(1947)(in Russian).—The rate of absorption of H_2S (20% in air) by 0.05-0.15-g. samples (grain size 1.5-2 mm.) of MnO_2 (prepd. from 5% $MnSO_4$ + 5% $KMnO_4$ at 80°), PbO_2 (from $Pb(OAc)_2$ + $CaOCl_2$), and yellow HgO (from $HgCl_2$ + NaOH, cold) was measured statically at 20°. The amts. absorbed (moles H_2S per mole oxide) after 1, 5, 25, 50 min. were: MnO_2 1.08, 1.2, 1.48, 1.51; PbO_2 0.84, 0.90, 1.12, 1.30; HgO 0.38, 0.61, 0.72, 0.76. The relative slowness of the reaction with PbO_2 is due to its great compactness. Red HgO reacts extremely slowly, 1 mole absorbing, after 0.5, 2.0, 3.0, 7.0 hrs., 0.09, 0.18, 0.28, 0.48 moles H_2S. In dynamic absorption, in a stream of air, contg. 0.20-4.0 mg. H_2S per l., flowing at the rate of 810 ml./sq.cm. of sorbent section, the protective effect of layers 10, 20, 30, and 40 mm. deep, lasted: with MnO_2, 10, 33, 78, and 136 min.; with PbO_2, 34, 76, 120, and 184 min. The nearly doubled duration of the protective effect of PbO_2 is evidently due to its high *d*.

N. Thon

METALLURGICAL LITERATURE CLASSIFICATION



CA

Oxidation of nitric oxide in small concentrations and its determination. V. P'yankov. *J. Gen. Chem.* (U. S. S. R.) 3, 882-9(1933).—Studies of the air in factories and mines by the Griess method for detg. N_2O_3 in NaOH soln. through which the air was passed, disclosed the fact that NO in small concns. is oxidized rapidly to N_2O_3 and more slowly to NO_2. When 0.6 mg. NO per l. of air is present, 95% is converted to NO_2 in 2.5 hrs. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

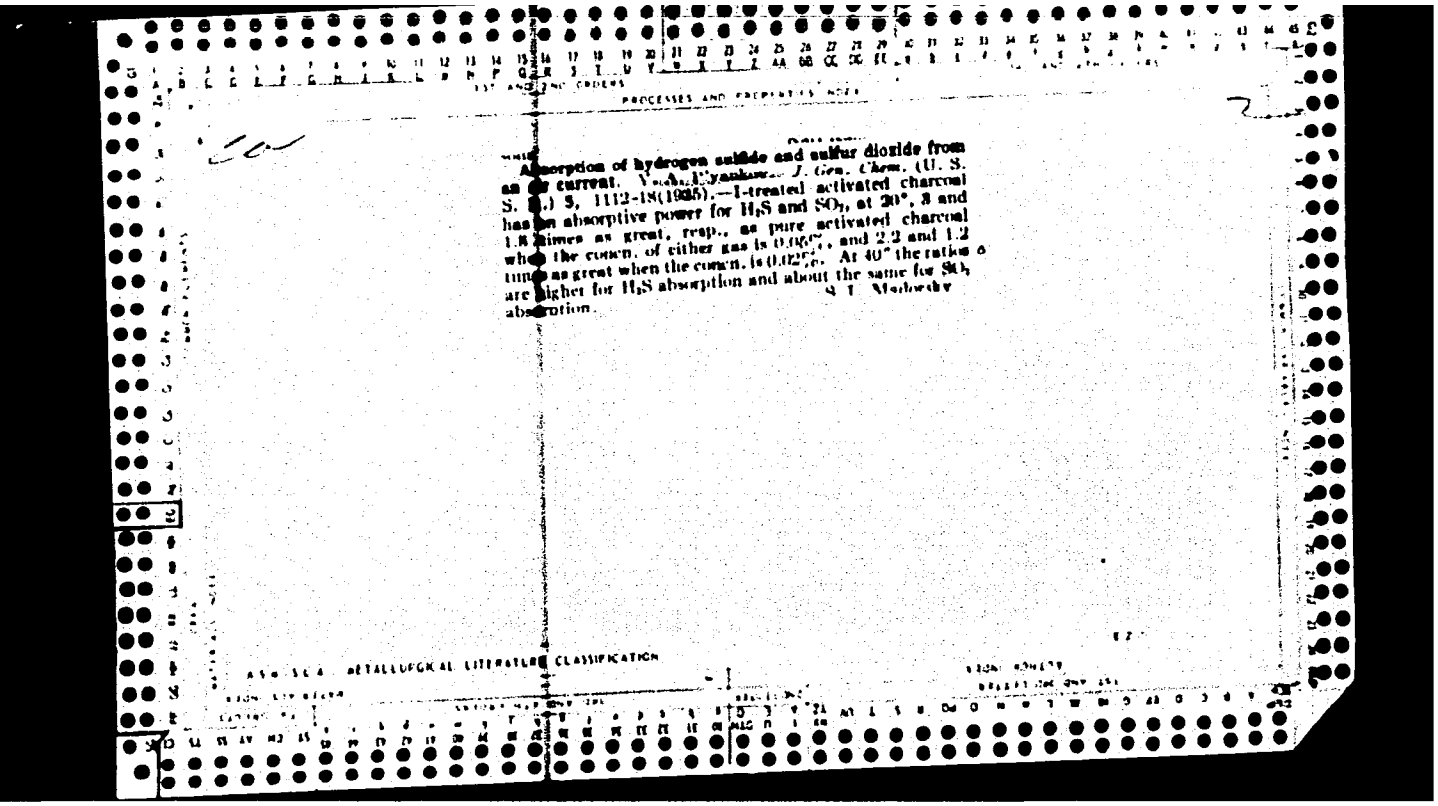
Ca

21

Velocity of adsorption of oxygen by coal in the presence of occluded gases. V. A. K'[illegible] and M. L. Luevshil. *Ugol* No. [illegible], 41-9(1953).—Expts. with various samples of coal from the Don basin contg. occluded CH_4 at 20°, 30°, and 40° show that the ratio of expelled CH_4 to adsorbed O_2 is a const. at a given temp. for all dry samples regardless of the time of exposure to air. The ratio decreases as the temp. increases. The ratio is not const. if moisture is present. Adsorption of O_2 decreases with length of exposure and if moisture is present. Increasing the temp. decreases adsorption in some samples and increases it in others.

H. W. Rathmann

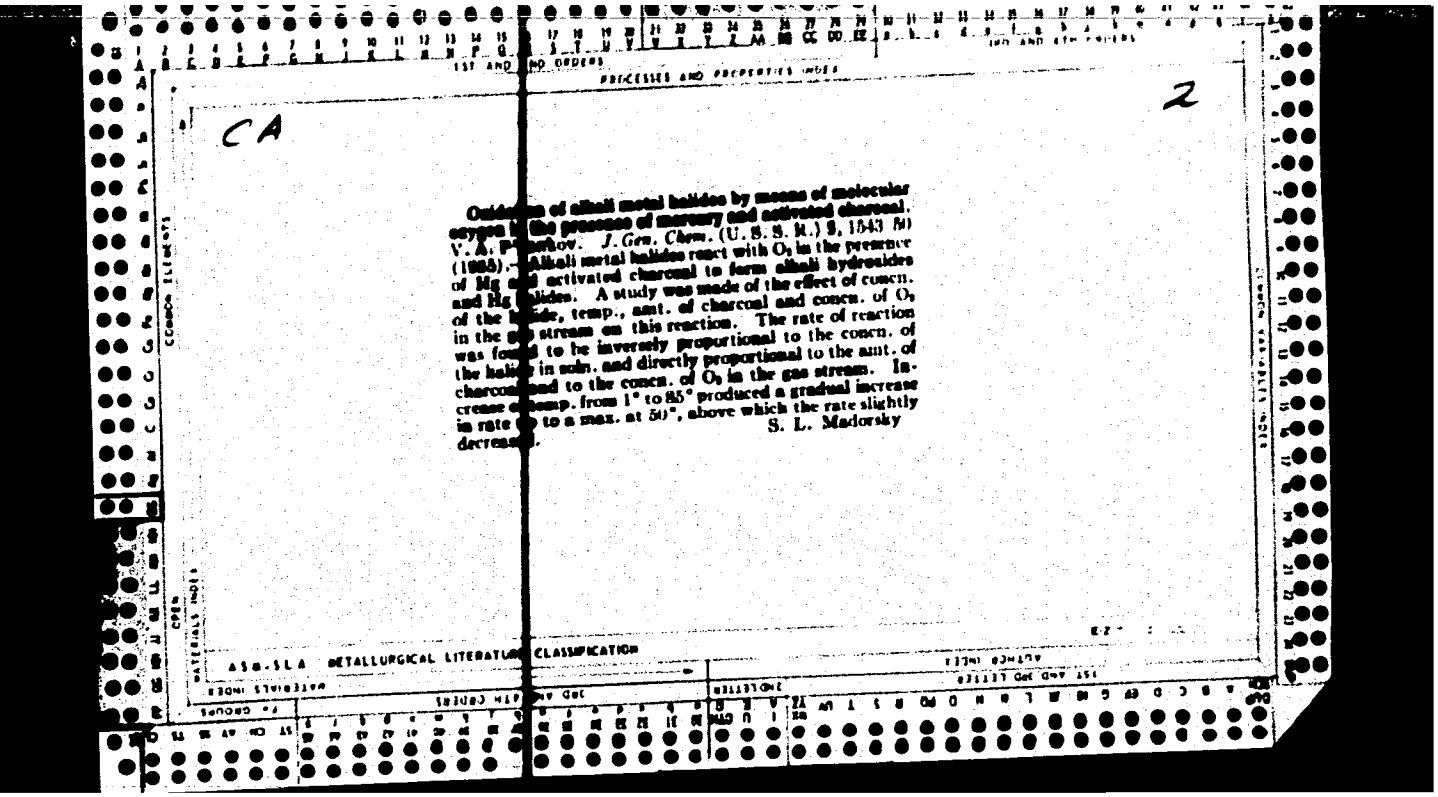
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PREPARATIONS INDEX

Absorption of hydrogen sulfide and sulfur dioxide from [illegible] **current.** [illegible] *J. Gen. Chem.* (U. S. S. R.) 5, 1112-18(1935).—I-treated activated charcoal has an absorptive power for H_2S and SO_2, at 20°, 3 and 1.8 times as great, resp., as pure activated charcoal when the concn. of either gas is 0.06%, and 2.2 and 1.2 times as great when the concn. is 0.02%. At 40° the ratios are higher for H_2S absorption and about the same for SO_2 absorption. S. T. Medwedw

METALLURGICAL LITERATURE CLASSIFICATION

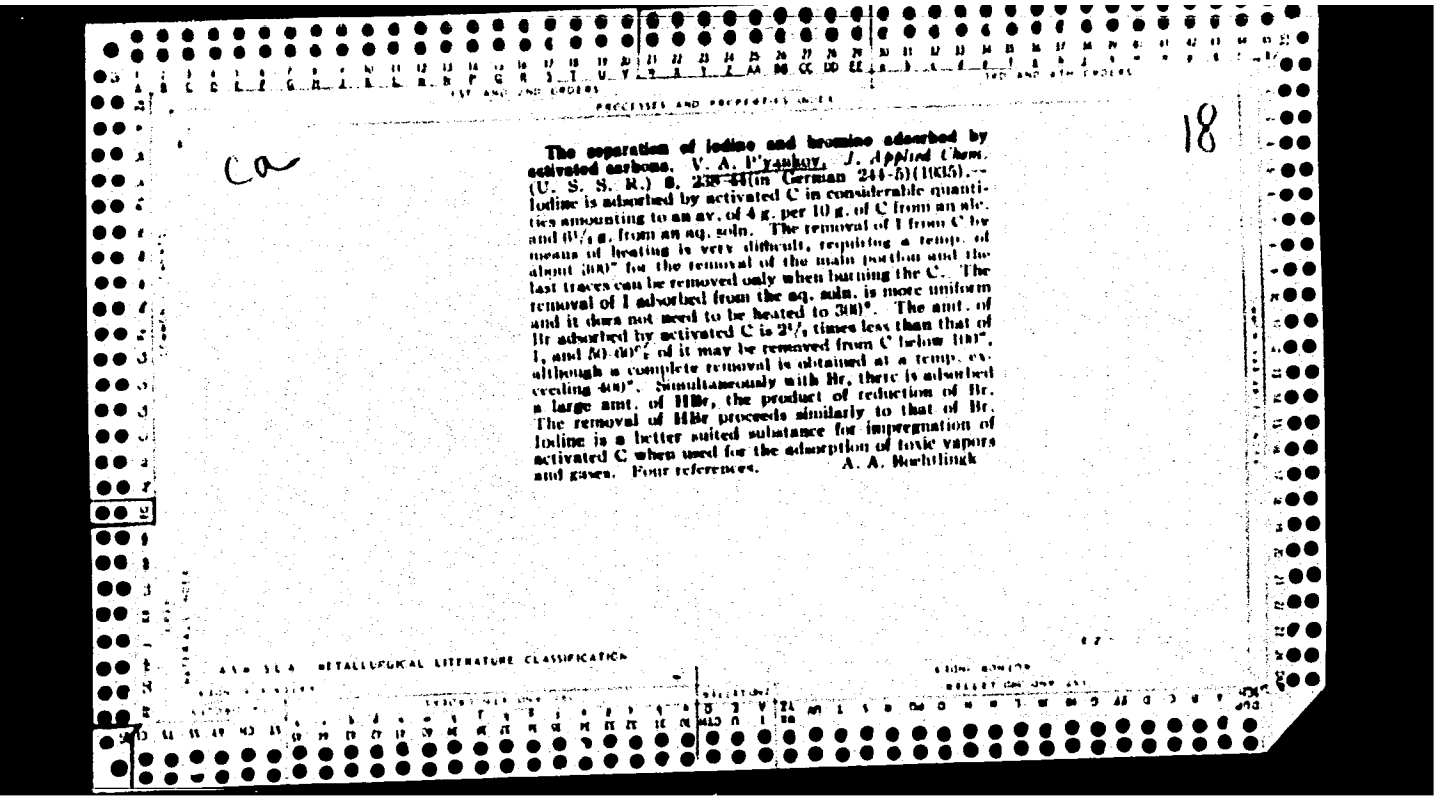


CA

2

Oxidation of alkali metal halides by means of molecular oxygen in the presence of mercury and activated charcoal. V. A. P[illegible]ov. *J. Gen. Chem.* (U. S. S. R.) 9, 1543 (1939). Alkali metal halides react with O_2 in the presence of Hg and activated charcoal to form alkali hydroxides and Hg halides. A study was made of the effect of concn. of the halide, temp., amt. of charcoal and concn. of O_2 in the gas stream on this reaction. The rate of reaction was found to be inversely proportional to the concn. of the halide in soln. and directly proportional to the amt. of charcoal and to the concn. of O_2 in the gas stream. Increase of temp. from 1° to 85° produced a gradual increase in rate up to a max. at 50°, above which the rate slightly decreased.

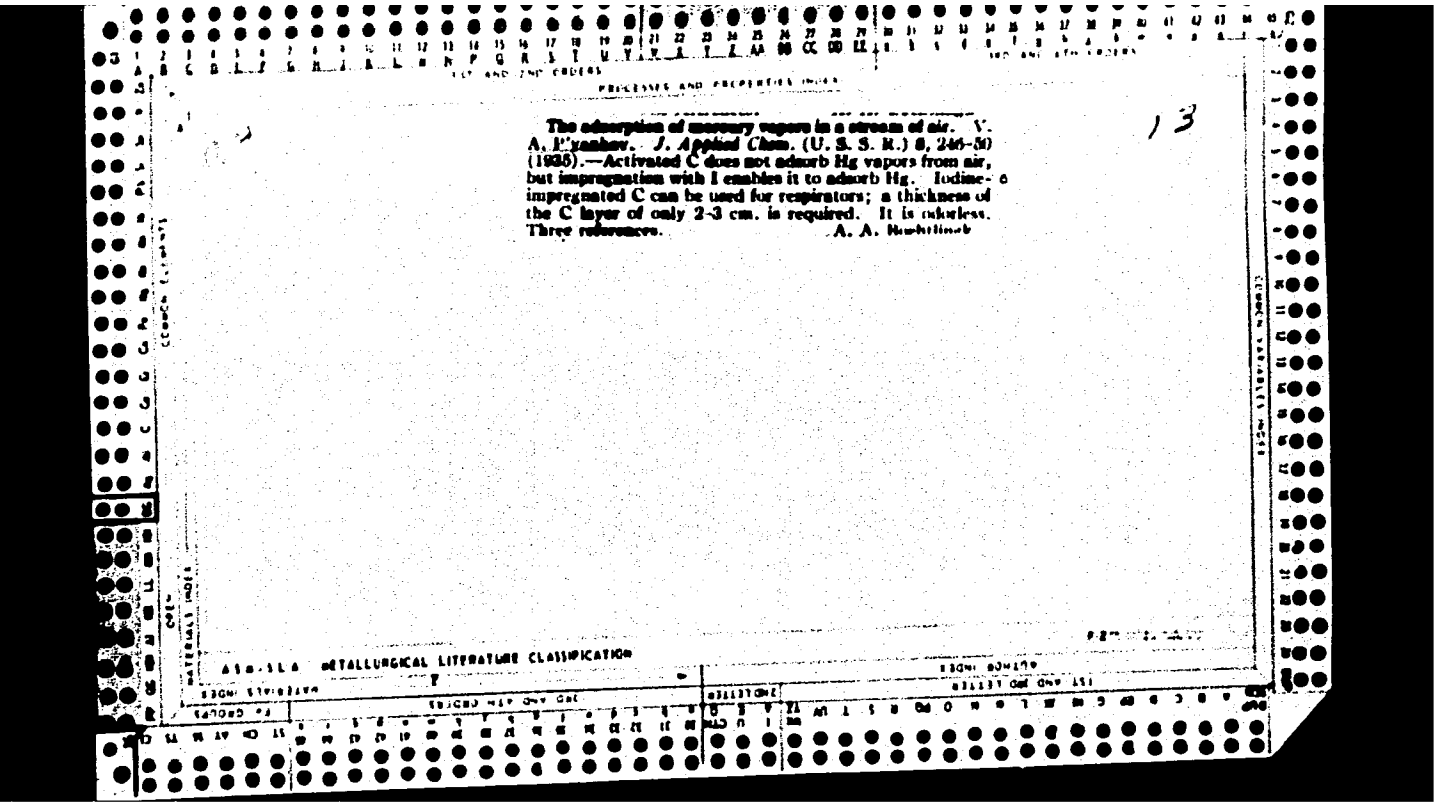
S. L. Madorsky



Ca

18

The separation of iodine and bromine adsorbed by activated carbons. V. A. Pyatkov. *J. Applied Chem.* (U. S. S. R.) 8, 238-44 (in German 244-5) (1935).—Iodine is adsorbed by activated C in considerable quantities amounting to an av. of 4 g. per 10 g. of C from an alc. and 0.5 g. from an aq. soln. The removal of I from C by means of heating is very difficult, requiring a temp. of about 300° for the removal of the main portion and the last traces can be removed only when burning the C. The removal of I adsorbed from the aq. soln. is more uniform and it does not need to be heated to 300°. The amt. of Br adsorbed by activated C is 2½ times less than that of I, and 50-60% of it may be removed from C below 100°, although a complete removal is obtained at a temp. exceeding 400°. Simultaneously with Br, there is adsorbed a large amt. of HBr, the product of reduction of Br. The removal of HBr proceeds similarly to that of Br. Iodine is a better suited substance for impregnation of activated C when used for the adsorption of toxic vapors and gases. Four references. A. A. Berthlingk

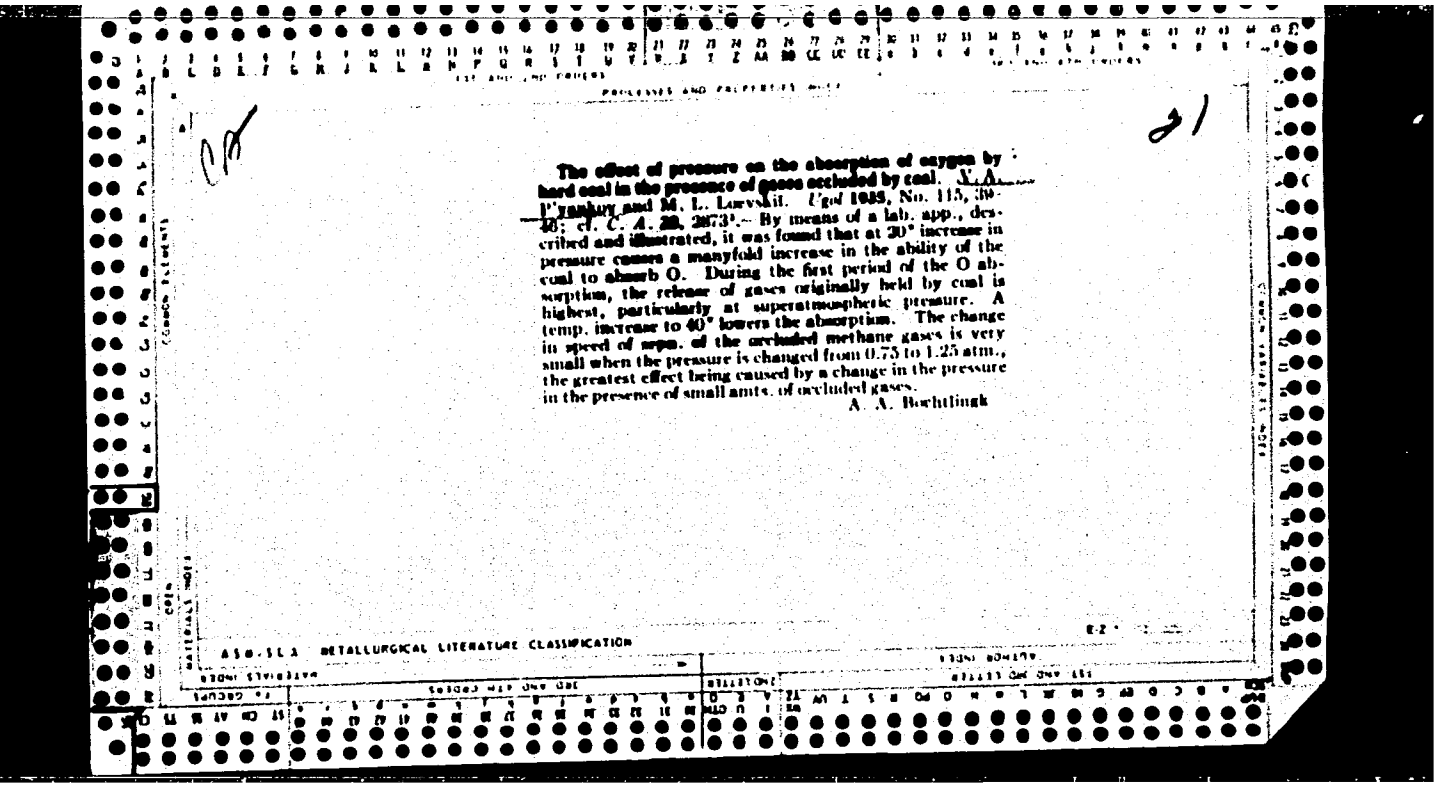


PROCESSES AND PROPERTIES INDEX

13

The adsorption of mercury vapors in a stream of air. V. A. Fyanbev. *J. Applied Chem.* (U. S. S. R.) 8, 245–50 (1935).—Activated C does not adsorb Hg vapors from air, but impregnation with I enables it to adsorb Hg. Iodine-impregnated C can be used for respirators; a thickness of the C layer of only 2-3 cm. is required. It is odorless. Three references. A. A. Boehtlingk

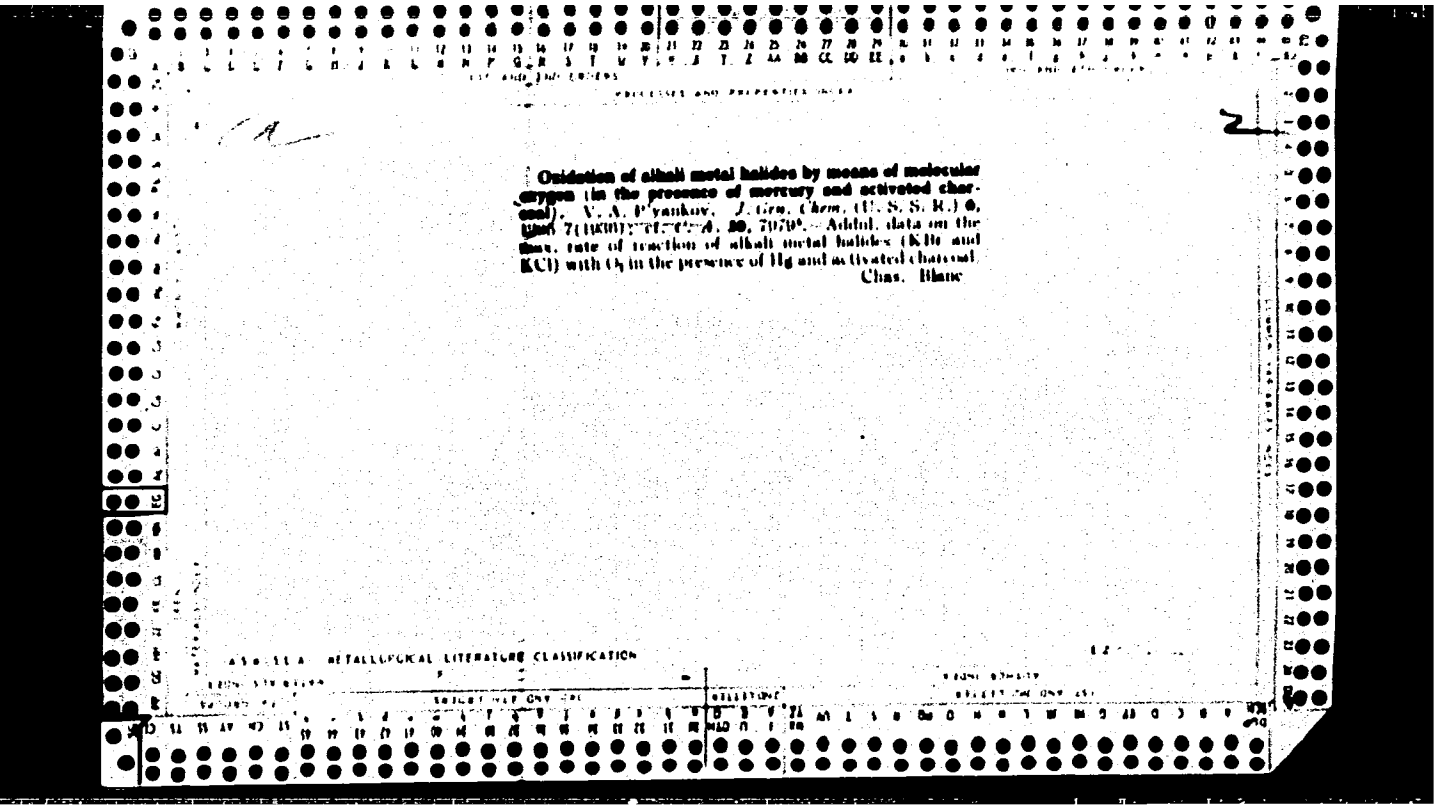
A 5 8-5 L A METALLURGICAL LITERATURE CLASSIFICATION



The effect of pressure on the absorption of oxygen by hard coal in the presence of gases occluded by coal. V. A. Ilyenkov and M. L. Lavrukhil. *Ugol* 1935, No. 115, 39-48; cf. *C. A.* 29, 2873⁹.— By means of a lab. app., described and illustrated, it was found that at 20° increase in pressure causes a manyfold increase in the ability of the coal to absorb O. During the first period of the O absorption, the release of gases originally held by coal is highest, particularly at superatmospheric pressure. A temp. increase to 40° lowers the absorption. The change in speed of sepn. of the occluded methane gases is very small when the pressure is changed from 0.75 to 1.25 atm., the greatest effect being caused by a change in the pressure in the presence of small amts. of occluded gases.

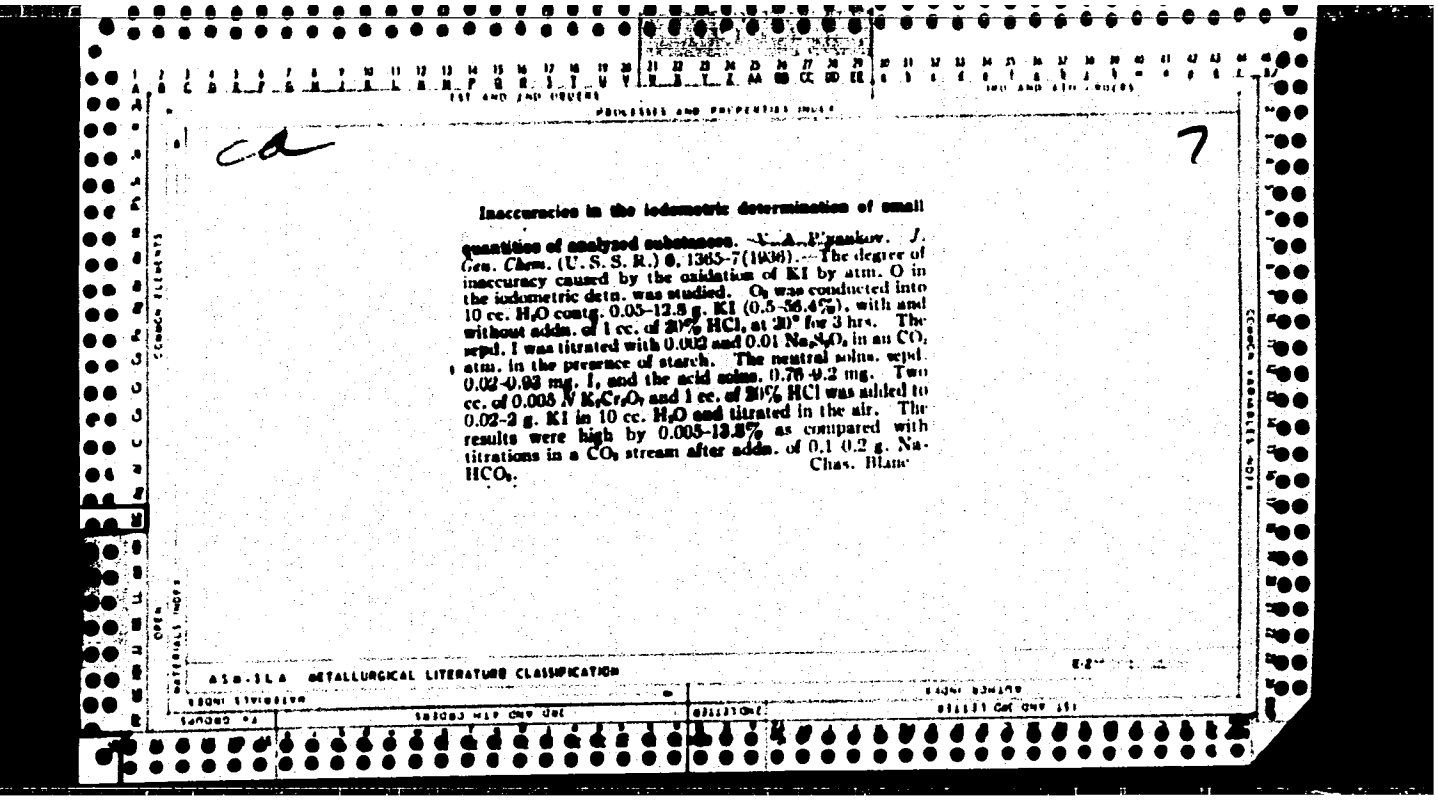
A. A. Bochtlingk

A58.51A METALLURGICAL LITERATURE CLASSIFICATION



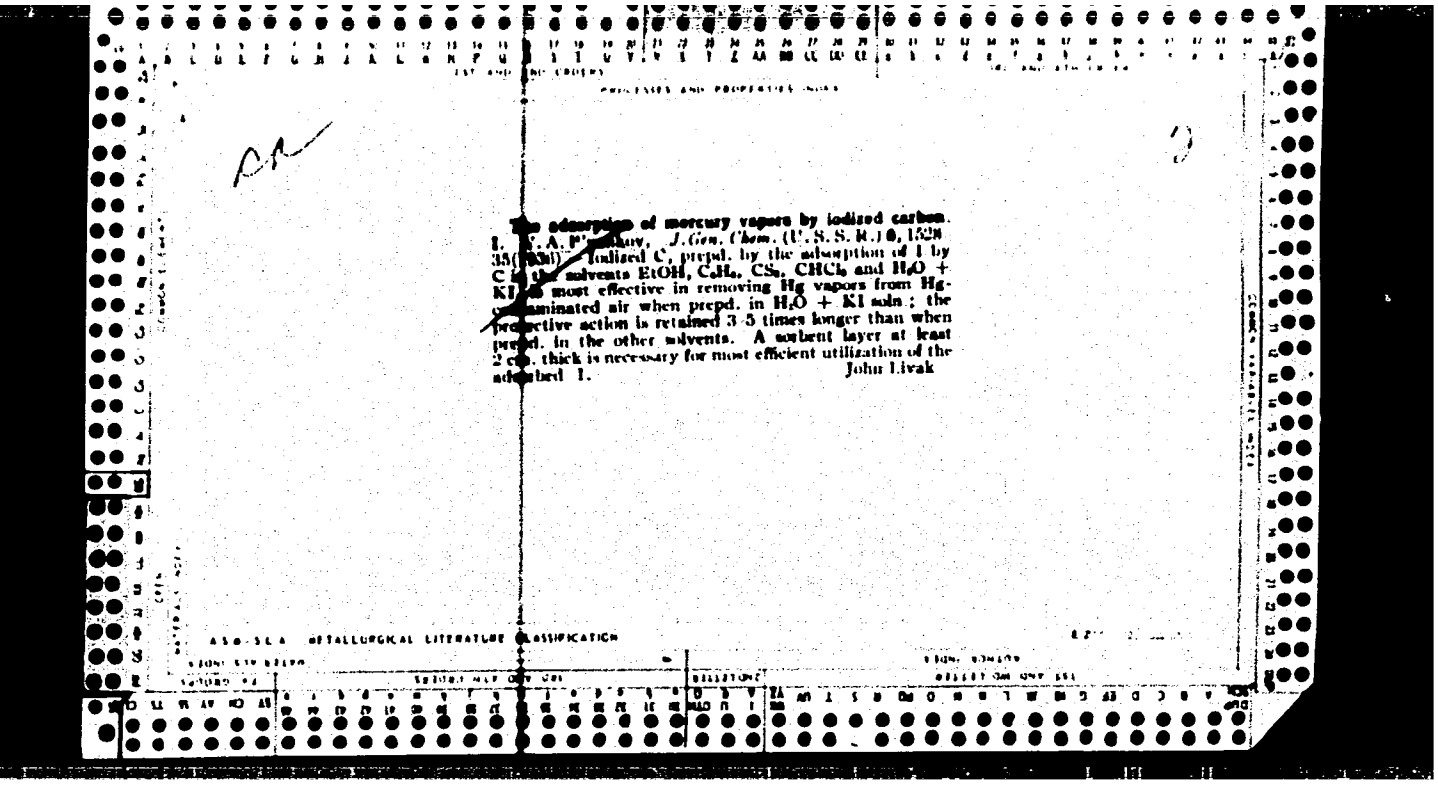
Oxidation of alkali metal halides by means of molecular oxygen (in the presence of mercury and activated charcoal). V. A. Plyushov. *J. Gen. Chem.* (U. S. S. R.) 6, [illegible] 7[1936]: [illegible]. Additl. data on the [illegible] rate of reaction of alkali metal halides (KBr and KCl) with O_2 in the presence of Hg and activated charcoal.
Chas. Blanc

A S & T A METALLURGICAL LITERATURE CLASSIFICATION

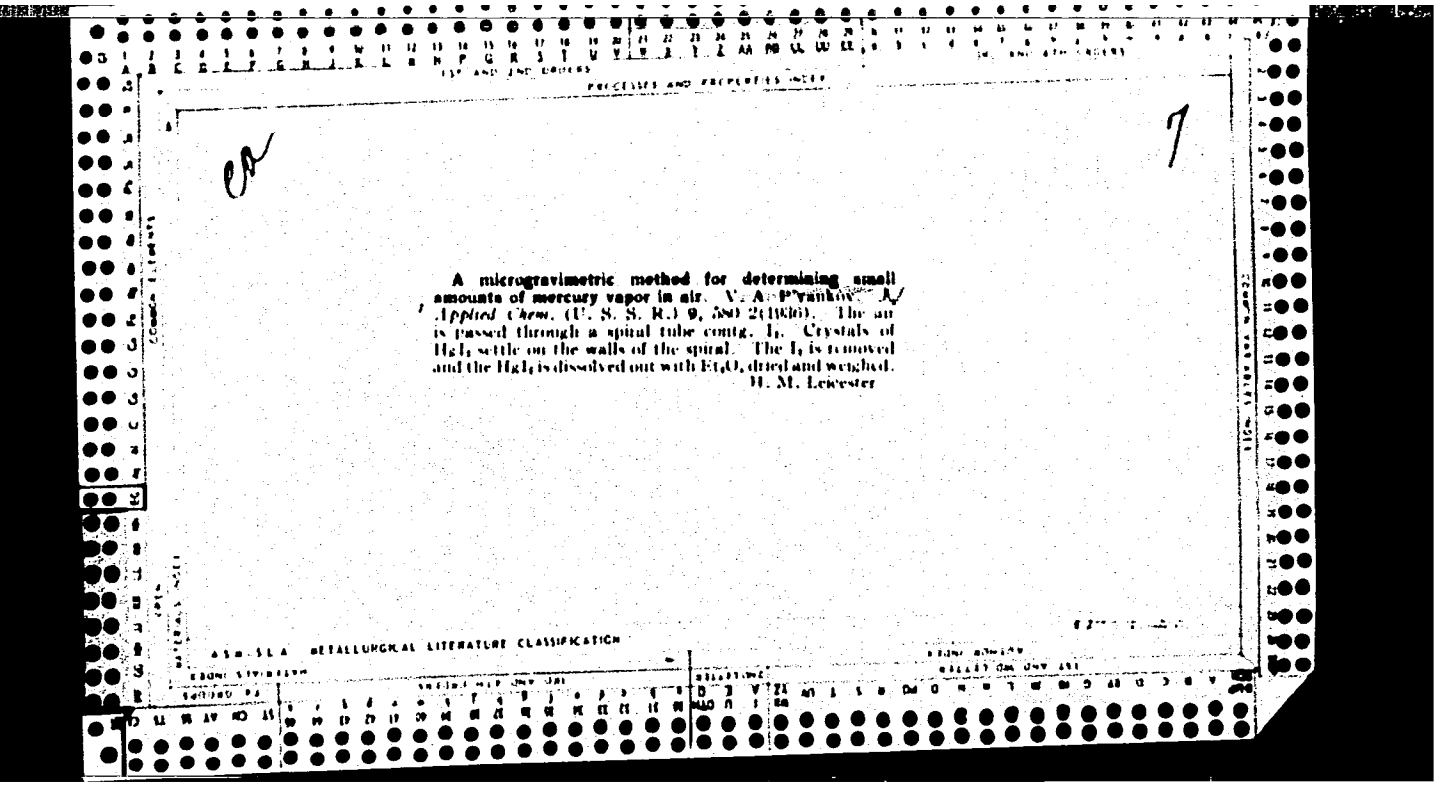


Inaccuracies in the iodometric determination of small quantities of analyzed substances. V. A. Il'yankov. *J. Gen. Chem.* (U. S. S. R.) 6, 1365–7(1936).—The degree of inaccuracy caused by the oxidation of KI by atm. O in the iodometric detn. was studied. O_2 was conducted into 10 cc. H_2O contg. 0.05–12.8 g. KI (0.5–56.4%), with and without addn. of 1 cc. of 20% HCl, at 20° for 3 hrs. The sepd. I was titrated with 0.002 and 0.01 $Na_2S_2O_3$ in an CO_2 atm. in the presence of starch. The neutral solns. sepd. 0.02–0.93 mg. I, and the acid solns. 0.76–9.2 mg. Two cc. of 0.005 *N* $K_2Cr_2O_7$ and 1 cc. of 20% HCl was added to 0.02–2 g. KI in 10 cc. H_2O and titrated in the air. The results were high by 0.005–13.8% as compared with titrations in a CO_2 stream after addn. of 0.1–0.2 g. $NaHCO_3$.

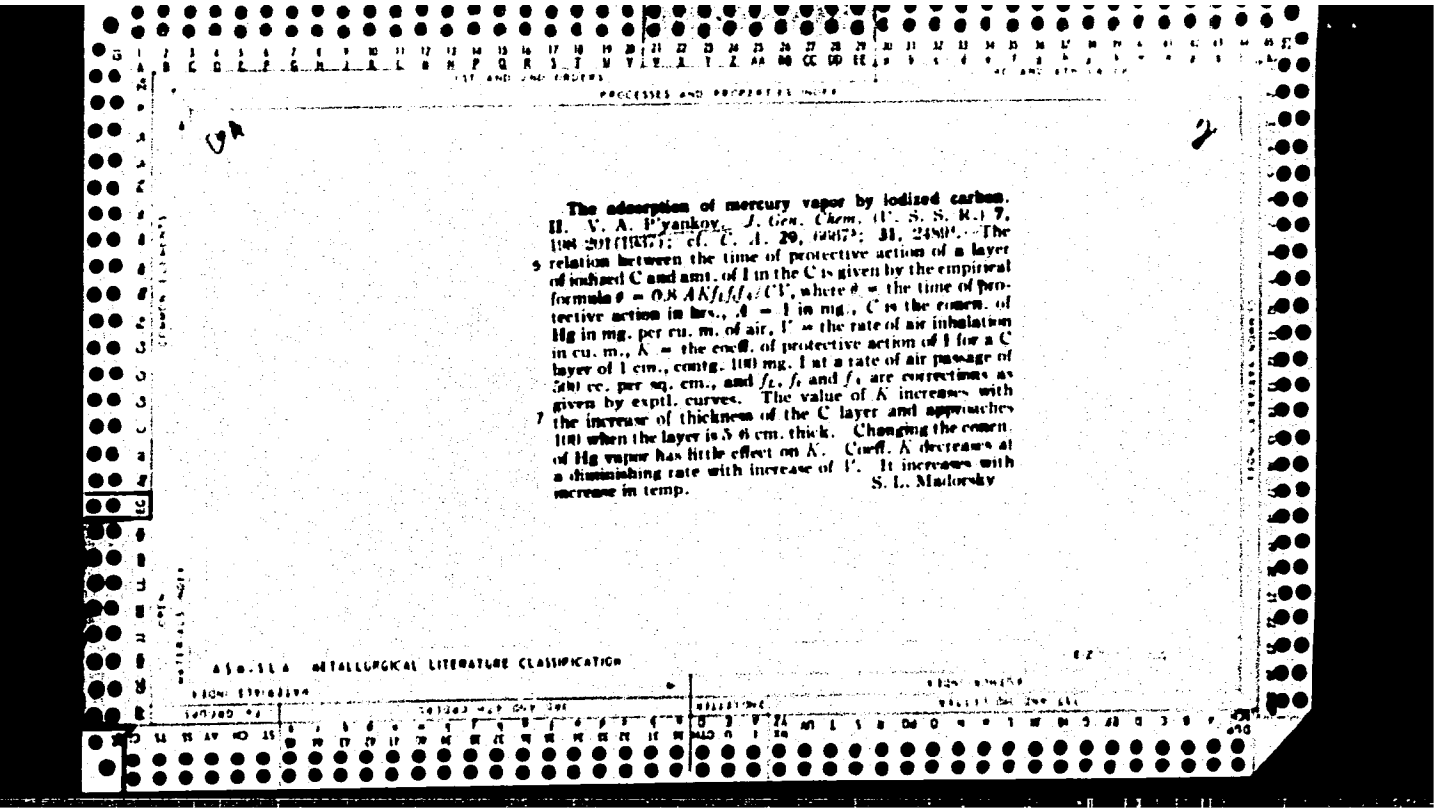
Chas. Blanc



The adsorption of mercury vapors by iodized carbon. I. V. A. P[illegible]ay, *J. Gen. Chem.* (U. S. S. R.) 6, 1528-35(1936). Iodized C, prepd. by the adsorption of I by C from the solvents EtOH, C_6H_6, CS_2, $CHCl_3$ and H_2O + KI, is most effective in removing Hg vapors from Hg-contaminated air when prepd. in H_2O + KI soln.; the protective action is retained 3-5 times longer than when prepd. in the other solvents. A solvent layer at least 2 cm. thick is necessary for most efficient utilization of the adsorbent. I. John Livak

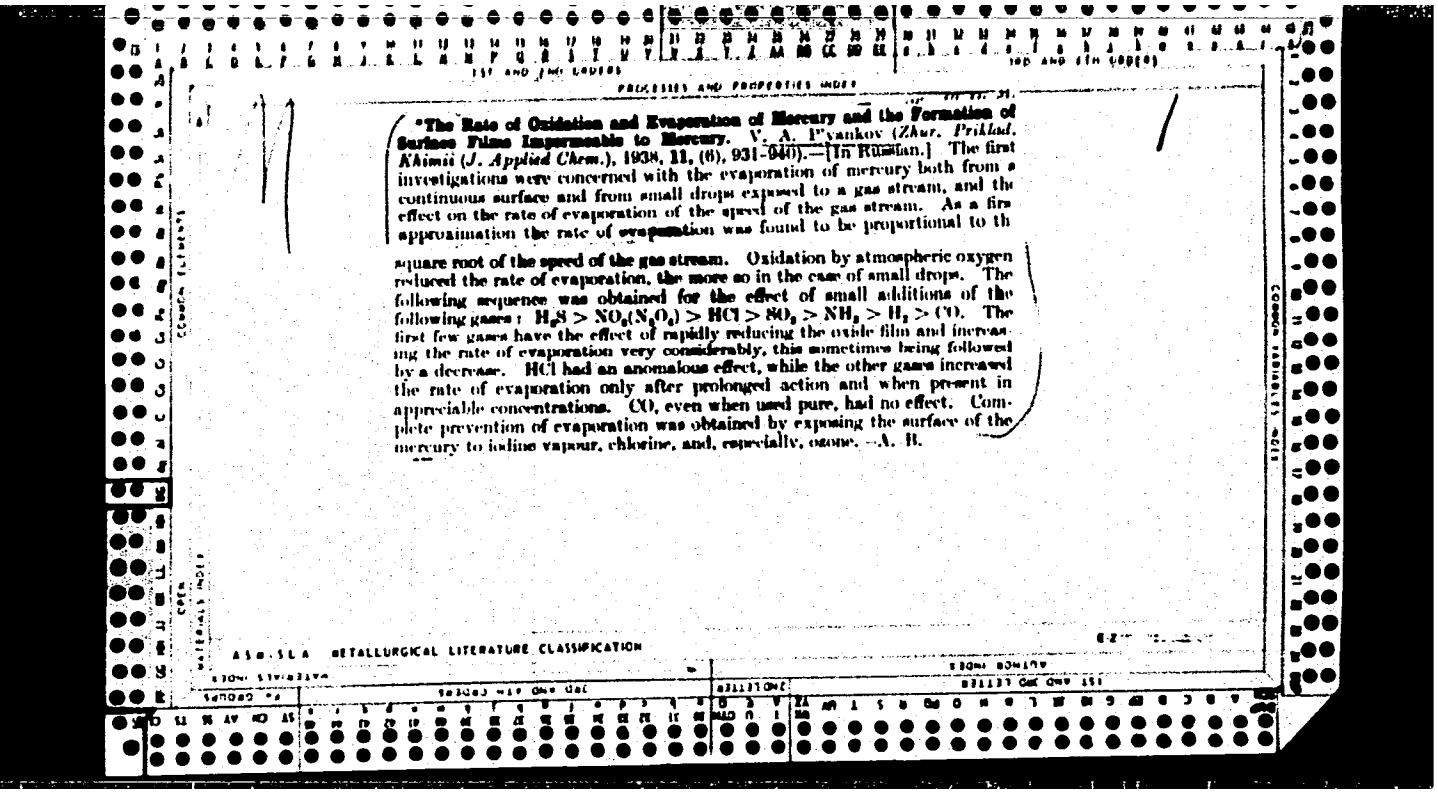


A microgravimetric method for determining small amounts of mercury vapor in air. V. A. P'yankov. *Zhur. Prikladnoi Khim.* (J. Applied Chem. (U. S. S. R.) 9, 580) 2(1936). The air is passed through a spiral tube contg. I_2. Crystals of HgI_2 settle on the walls of the spiral. The I_2 is removed and the HgI_2 is dissolved out with Et_2O, dried and weighed.
H. M. Leicester

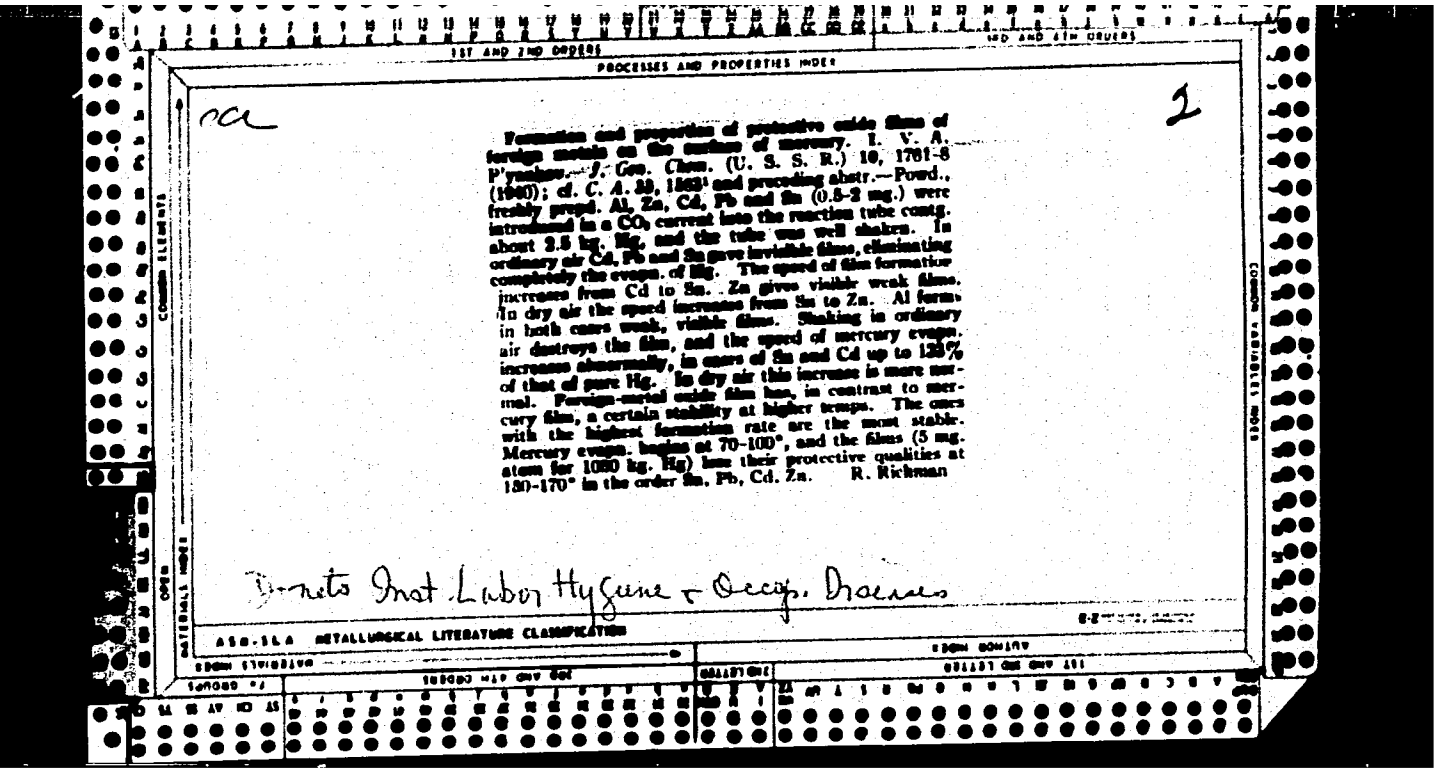


The adsorption of mercury vapor by iodized carbon. II. V. A. Fryankov. *J. Gen. Chem.* (U. S. S. R.) 7, 1198-201 (1937); cf. *C. A.* 29, 6087⁵; 31, 2480⁹.—The relation between the time of protective action of a layer of iodized C and amt. of I in the C is given by the empirical formula $\theta = 0.8\,AKf_1f_2f_3/CV$, where θ = the time of protective action in hrs., A = I in mg., C is the concn. of Hg in mg. per cu. m. of air, V = the rate of air inhalation in cu. m., K = the coeff. of protective action of I for a C layer of 1 cm., contg. 100 mg. I at a rate of air passage of 200 cc. per sq. cm., and f_1, f_2 and f_3 are corrections as given by exptl. curves. The value of K increases with the increase of thickness of the C layer and approaches 100 when the layer is 5.6 cm. thick. Changing the concn. of Hg vapor has little effect on K. Coeff. K decreases at a diminishing rate with increase of V. It increases with increase in temp.

S. L. Madorsky



"The Rate of Oxidation and Evaporation of Mercury and the Formation of Surface Films Impermeable to Mercury. V. A. Fyankov (*Zhur. Prikład. Khimii* (*J. Applied Chem.*), 1938, **11**, (6), 931-940).—[In Russian.] The first investigations were concerned with the evaporation of mercury both from a continuous surface and from small drops exposed to a gas stream, and the effect on the rate of evaporation of the speed of the gas stream. As a first approximation the rate of evaporation was found to be proportional to the square root of the speed of the gas stream. Oxidation by atmospheric oxygen reduced the rate of evaporation, the more so in the case of small drops. The following sequence was obtained for the effect of small additions of the following gases: $H_2S > NO_2(N_2O_4) > HCl > SO_2 > NH_3 > H_2 > CO$. The first few gases have the effect of rapidly reducing the oxide film and increasing the rate of evaporation very considerably, this sometimes being followed by a decrease. HCl had an anomalous effect, while the other gases increased the rate of evaporation only after prolonged action and when present in appreciable concentrations. CO, even when used pure, had no effect. Complete prevention of evaporation was obtained by exposing the surface of the mercury to iodine vapour, chlorine, and, especially, ozone.—A. B.



PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

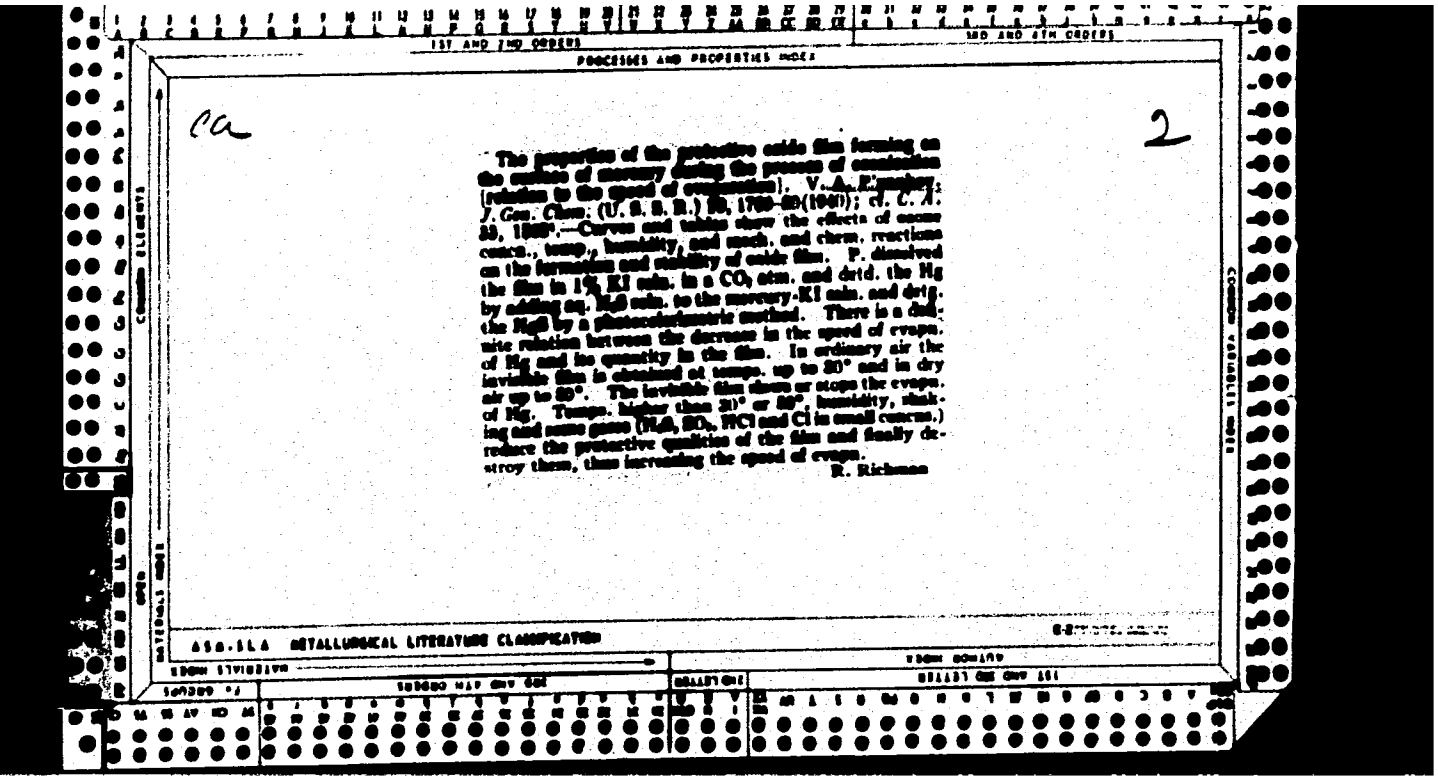
ca

2

Formation and properties of protective oxide films of foreign metals on the surface of mercury. I. V. A. P'yankov. *J. Gen. Chem.* (U. S. S. R.) 10, 1761-8 (1940); cf. *C. A.* 33, 1463[1] and preceding abstr.—Powd., freshly prepd. Al, Zn, Cd, Pb and Sn (0.5-2 mg.) were introduced in a CO_2 current into the reaction tube contg. about 2.5 kg. Hg, and the tube was well shaken. In ordinary air Cd, Pb and Sn gave invisible films, eliminating completely the evapn. of Hg. The speed of film formation increases from Cd to Sn. Zn gives visible weak films. In dry air the speed increases from Sn to Zn. Al forms in both cases weak, visible films. Shaking in ordinary air destroys the film, and the speed of mercury evapn. increases abnormally, in cases of Sn and Cd up to 125% of that of pure Hg. In dry air this increase is more normal. Foreign-metal oxide film has, in contrast to mercury film, a certain stability at higher temps. The ones with the highest formation rate are the most stable. Mercury evapn. begins at 70-100°, and the films (5 mg. atom for 1000 kg. Hg) lose their protective qualities at 130-170° in the order Sn, Pb, Cd, Zn. R. Richman

D-nets Inst. Labor Hygiene + Occup. Diseases

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION



ca

2

The properties of the protective oxide film forming on the surface of mercury during the process of amalgamation [relation to the speed of evaporation]. V. A. Kireev: J. Gen. Chem. (U. S. S. R.) 10, 1789-99(1940); cf. C. A. 33, 1888°.—Curves and tables show the effects of excess concn., temp., humidity, and mech. and chem. reactions on the formation and stability of oxide film. P. dissolved the film in 1% KI soln. in a CO_2 atm. and detd. the Hg by a photoelectrometric method. There is a definite relation between the decrease in the speed of evapn. of Hg and its quantity in the film. In ordinary air the invisible film is obtained at temps. up to 20° and in dry air up to 50°. The invisible film does not stop the evapn. of Hg. Temps. higher than 20° or 50°, humidity, shaking and some gases (H_2S, SO_2, HCl and Cl in small concns.) reduce the protective qualities of the film and finally destroy them, thus increasing the speed of evapn.

R. Richman

A58.SL4 METALLURGICAL LITERATURE CLASSIFICATION

CA

2

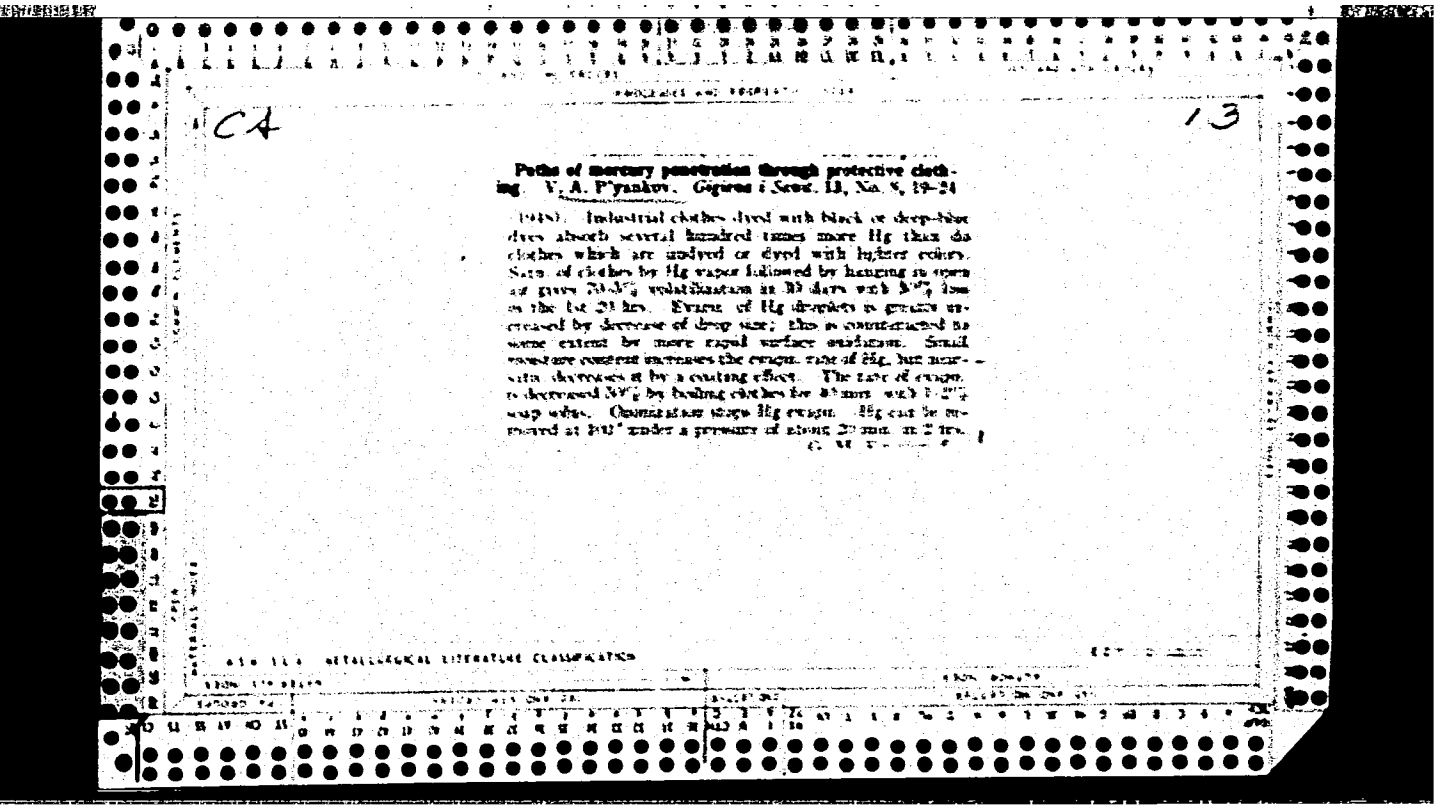
Absorption of mercury vapors by the oxides of metals and salts. V. A. [illegible] and M. L. Lovchik. J. Applied Chem. (U.S.S.R.) 33, [illegible] (in English, [illegible]) (1960); cf. C. A. [illegible].—The most active sorbents of Hg vapor were Ag_2O, activated MnO_2, and PbO_2. The activity of iodized C was lower than that of the above sorbents. $CaOCl_2$ had a fairly large activity especially in the presence of small amts. of acid vapor. It can be recommended for purification of gases contg. Hg vapor. HgO and $KMnO_4$ had but slight activity. A. A. P.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

P'YANKOV, V.A.

P'yankov, V.A. "Sorption of Hg vapor by tissues and demercurization of tissues," (reference), Soobshch. o nauch. rebotakh chlenov Vsesoyuz. khim. o-va im. Mendeleyeva, 1948, Issue 2, p. 30-31

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949



C4

13

Paths of mercury penetration through protective clothing. V. A. P'yankov. *Gigiena i Sanit.* 13, No. 5, 19–24

(1948). Industrial clothes dyed with black or deep-blue dyes absorb several hundred times more Hg than do clothes which are undyed or dyed with lighter colors. Satn. of clothes by Hg vapor followed by hanging in open air gives 20–30% volatilization in 10 days with 5–7% loss in the 1st 24 hrs. Evapn. of Hg droplets is greatly increased by decrease of drop size; this is counteracted to some extent by more rapid surface oxidation. Small amts. of water increase the evapn. rate of Hg, but moderate dilutions act by a coating effect. The rate of evapn. is decreased 50% by boiling clothes for 30 min. with 1–2% soap soln. Chamberland stops Hg evapn. Hg can be recovered at 340° under a pressure of about 20 mm. in 2 hrs.

Ch. Inorganic Chem.: Applied

[illegible]. [illegible] V. A. [illegible] (J. Gen. Chem. USSR, 1940, [illegible], [illegible] [U.S. [illegible]).—[An] apparatus is depicted, in which Hg vapour is allowed to react with O_3 and the residual Hg vapour absorbed and estimated.

D. P. Young.

PA 16/49T25

USSR/Chemistry - Mercury
Chemistry - Oxidation

Feb 49

"Oxidation and Evaporation of Mercury Drops," V. A. P'yankov, Donets Ind Inst, 8 pp

"Zhur Obshch Khim" Vol XIX, No 2

Studied dependency of evaporation speed of mercury drops under dynamic conditions upon values of their radii at 20° and 40°. Speed of evaporation from a unit of surface varies inversely with radius of the drop. Proposes formula to calculate evaporation speed of mercury drops in an air flow. For oxidation of a drop in air, protective properties of oxide

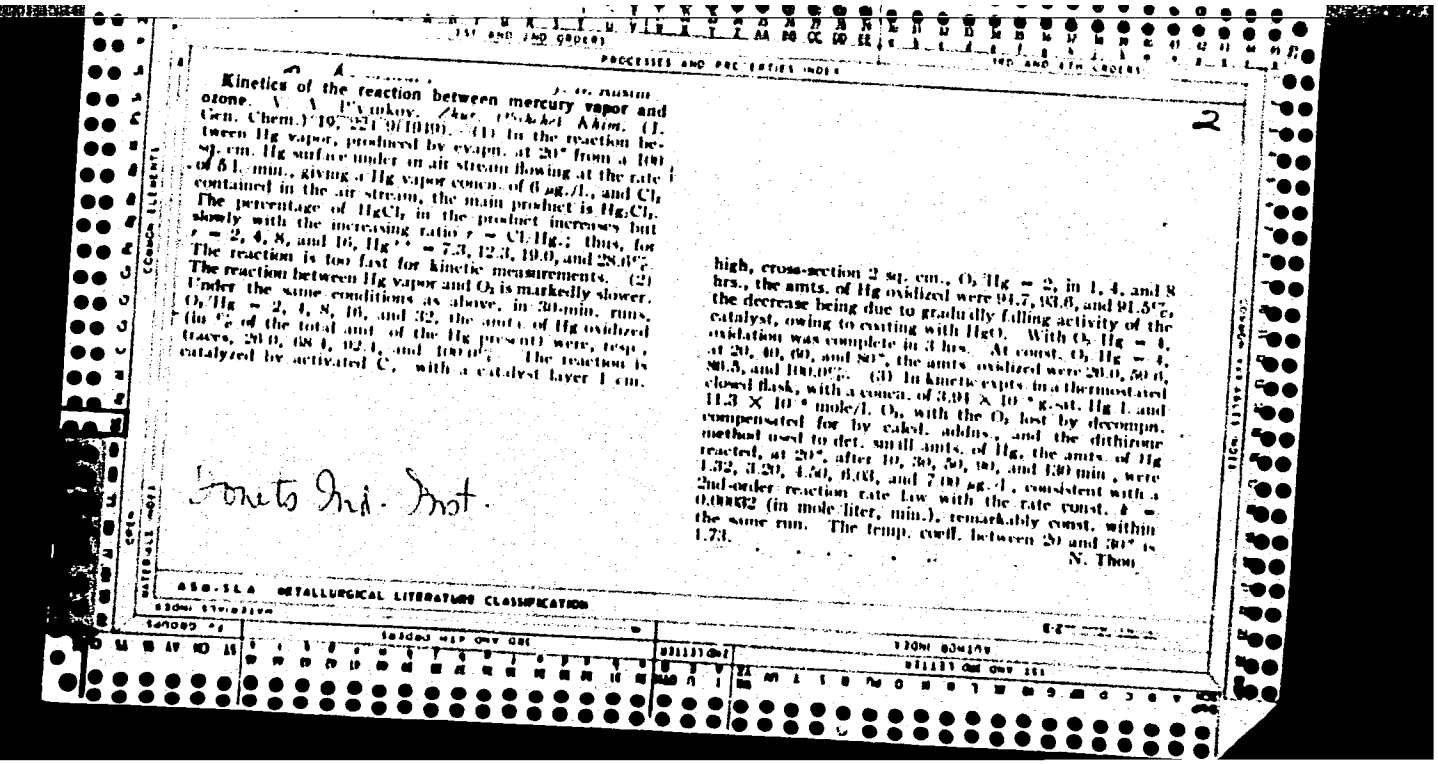
46/49T25

USSR/Chemistry - Mercury (Contd)

Feb 49

film are greater, the less the radius of the drop. Evaporation speed of oxidized surface does not depend on radius of the drop. After ozoning of mercury surface, its evaporation speed decreased 150 - 200 times up to 40°. With further increase in temperature, protective features of oxide film were less effective, the less the curvature of the surface. Submitted 18 Oct 48.

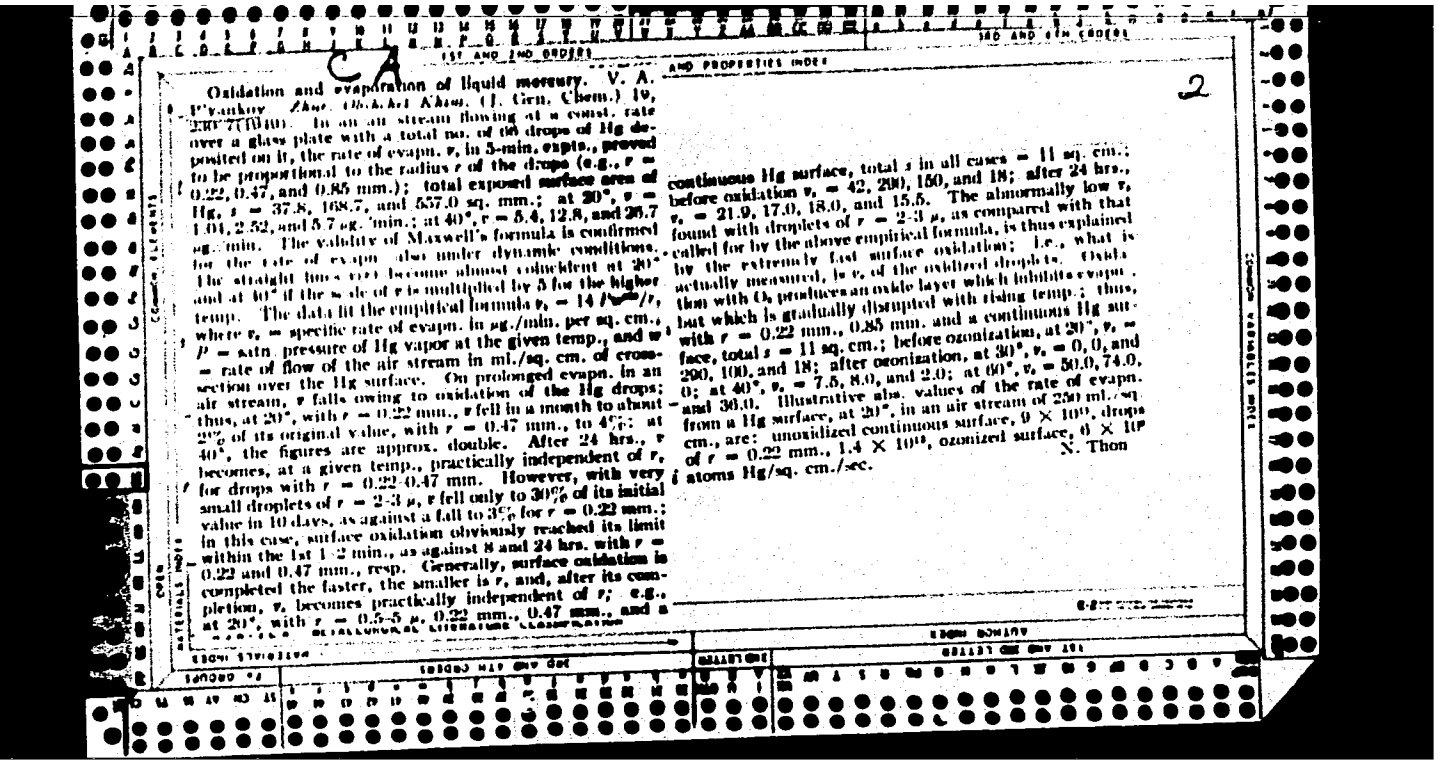
46/49T25



Kinetics of the reaction between mercury vapor and ozone. V. I. Pyatokov. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 19, 221-9(1949). (1) In the reaction between Hg vapor, produced by evapn. at 20° from a 100 sq. cm. Hg surface under an air stream flowing at the rate of 61. /min., giving a Hg vapor concn. of 6 μg./l., and O_3 contained in the air stream, the main product is Hg_2Cl_2. The percentage of $HgCl_2$ in the product increases but slowly with the increasing ratio $r = Cl:Hg$.; thus, for $r = 2$, 4, 8, and 16, $Hg^{++} = 7.3$, 12.3, 19.0, and 28.0%. The reaction is too fast for kinetic measurements. (2) The reaction between Hg vapor and O_2 is markedly slower. Under the same conditions as above, in 20-min. runs, $O_2:Hg = 2$, 4, 8, 16, and 32, the amts. of Hg oxidized (in % of the total amt. of the Hg present) were, respectively, 20.0, 68.4, 92.4, and [illegible]%. The reaction is catalyzed by activated C, with a catalyst layer 1 cm. high, cross-section 2 sq. cm., $O_2:Hg = 2$, in 1, 4, and 8 hrs., the amts. of Hg oxidized were 94.7, 93.6, and 91.5%, the decrease being due to gradually falling activity of the catalyst, owing to coating with HgO. With $O_2:Hg = 4$, oxidation was complete in 3 hrs. At const. $O_2:Hg = 4$, at 20, 40, 60, and 80°, the amts. oxidized were 20.0, 50.0, 80.5, and 100.0%. (3) In kinetic expts. in a thermostated closed flask, with a concn. of 3.91×10^{-6} g.-at. Hg/l. and 11.3×10^{-6} mole/l. O_3, with the O_3 lost by decompn. compensated for by calcd. additions, and the dithizone method used to det. small amts. of Hg, the amts. of Hg reacted, at 20°, after 10, 30, 50, 90, and 130 min., were 1.32, 3.20, 4.50, 8.03, and 7.10 μg./l., consistent with a 2nd-order reaction rate law with the rate const. $k = 0.00832$ (in mole/liter, min.), remarkably const. within the same run. The temp. coeff. between 20 and 30° is 1.73.

N. Thon

Forets Ind. Prot.



CA

Oxidation and evaporation of liquid mercury. V. A. Pyankov. Zhur. Obshchei Khim. (J. Gen. Chem.) 19, 2187-7(1949). In an air stream flowing at a const. rate over a glass plate with a total no. of 60 drops of Hg deposited on it, the rate of evapn. v, in 5-min. expts., proved to be proportional to the radius r of the drops (e.g., r = 0.22, 0.47, and 0.85 mm.); total exposed surface area of Hg, s = 37.8, 168.7, and 557.0 sq. mm.; at 20°, v = 1.04, 2.52, and 5.7 μg./min.; at 40°, v = 5.4, 12.8, and 26.7 μg./min. The validity of Maxwell's formula is confirmed for the rate of evapn. also under dynamic conditions. The straight lines v-r become almost coincident at 20° and at 40° if the scale of v is multiplied by 5 for the higher temp. The data fit the empirical formula $v_r = 14\,P^{0.9}/r$, where v_r = specific rate of evapn. in μg./min. per sq. cm., P = satn. pressure of Hg vapor at the given temp., and w = rate of flow of the air stream in ml./sq. cm. of cross-section over the Hg surface. On prolonged evapn. in an air stream, v falls owing to oxidation of the Hg drops; thus, at 20°, with r = 0.22 mm., v fell in a month to about 2% of its original value, with r = 0.47 mm., to 4%; at 40°, the figures are approx. double. After 24 hrs., v becomes, at a given temp., practically independent of r, for drops with r = 0.22-0.47 mm. However, with very small droplets of r = 2-3 μ, v fell only to 30% of its initial value in 10 days, as against a fall to 3% for r = 0.22 mm.; in this case, surface oxidation obviously reached its limit within the 1st 1-2 min., as against 8 and 24 hrs. with r = 0.22 and 0.47 mm., resp. Generally, surface oxidation is completed the faster, the smaller is r, and, after its completion, v_r becomes practically independent of r; e.g., at 20°, with r = 0.5-5 μ, 0.22 mm., 0.47 mm., and a continuous Hg surface, total s in all cases = 11 sq. cm.; before oxidation v_r = 42, 200, 150, and 18; after 24 hrs., v_r = 21.9, 17.0, 18.0, and 15.5. The abnormally low v_r found with droplets of r = 2-3 μ, as compared with that called for by the above empirical formula, is thus explained by the extremely fast surface oxidation; i.e., what is actually measured, is v_r of the oxidized droplets. Oxidation with O_3 produces an oxide layer which inhibits evapn., but which is gradually disrupted with rising temp.; thus, with r = 0.22 mm., 0.85 mm. and a continuous Hg surface, total s = 11 sq. cm.; before ozonization, at 20°, v_r = 200, 100, and 18; after ozonization, at 20°, v_r = 0, 0, and 0; at 40°, v_r = 7.5, 8.0, and 2.0; at 60°, v_r = 50.0, 74.0, and 36.0. Illustrative abs. values of the rate of evapn. from a Hg surface, at 20°, in an air stream of 250 ml./sq. cm., are: unoxidized continuous surface, 9×10^{15}, drops of r = 0.22 mm., 1.4×10^{15}, ozonized surface, 6×10^{13} atoms Hg/sq. cm./sec.

N. Thon

KHALETSKA, N.I.; CHEKHOVSKIY, N.S.; P'YANKOV, P.I.; OSTROVSKIY, N.N.
BIRBRAYER, M.L.; ABRAMOVA, N.I.; KOGAN, G.Kh., kand.med.nauk;
ANDZHELOV, V.O., kand.med.nauk

Abstracts. Sovet. med. 27 no.9:131-133 S'63 (MIRA 17:2)

1. Iz kafedry gospital'noy terapii Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova (for Khaletskaya, Chekhovskiy). 2. Iz kliniki infektsionnykh bolezney Permskogo meditsinskogo instituta (for P'yankov). 3. Iz kafedry infektsionnykh bolezney Blagoveshchenskogo meditsinskogo instituta (for Ostrovskiy) 4. Iz kafedry kozhnykh i venericheskikh bolezney Odesskogo meditsinskogo instituta imeni Pirogova (for Birbrayer). 5. Iz kafedry kozhnykh bolezney II Moskovskogo meditsinskogo instituta imeni Pirogova (for Abramova). 6. Iz kozhnogo dispansera 24-y gorodskoy bol'nitsy Dnepropetrovska (for Kogan). 7. Iz nauchno-issledovatel'skogo instituta glaznykh bolezney imeni Gel'mgol'tsa (for Andzhelov).

P'YANKOV, P.I.

Comparative evaluation of the uninterrupted and 2-cycle methods of antibiotic therapy in typhoid-paratyphoid diseases. Sov.med. 26 no.10:54-58 O '62. (MIRA 15:12)

1. Iz kliniki infektsionnykh bolezney (zav. - dotsent V.I. Rabinovich) Permskogo meditsinskogo instituta. Nauchnyy rukovoditel' raboty - prof. K.V.Bunin.
(LEVOMYCETIN) (ACETAMIDE) (TYPHOID FEVER) (PARATYPHOID FEVER)

P'YANKOV, V. A.

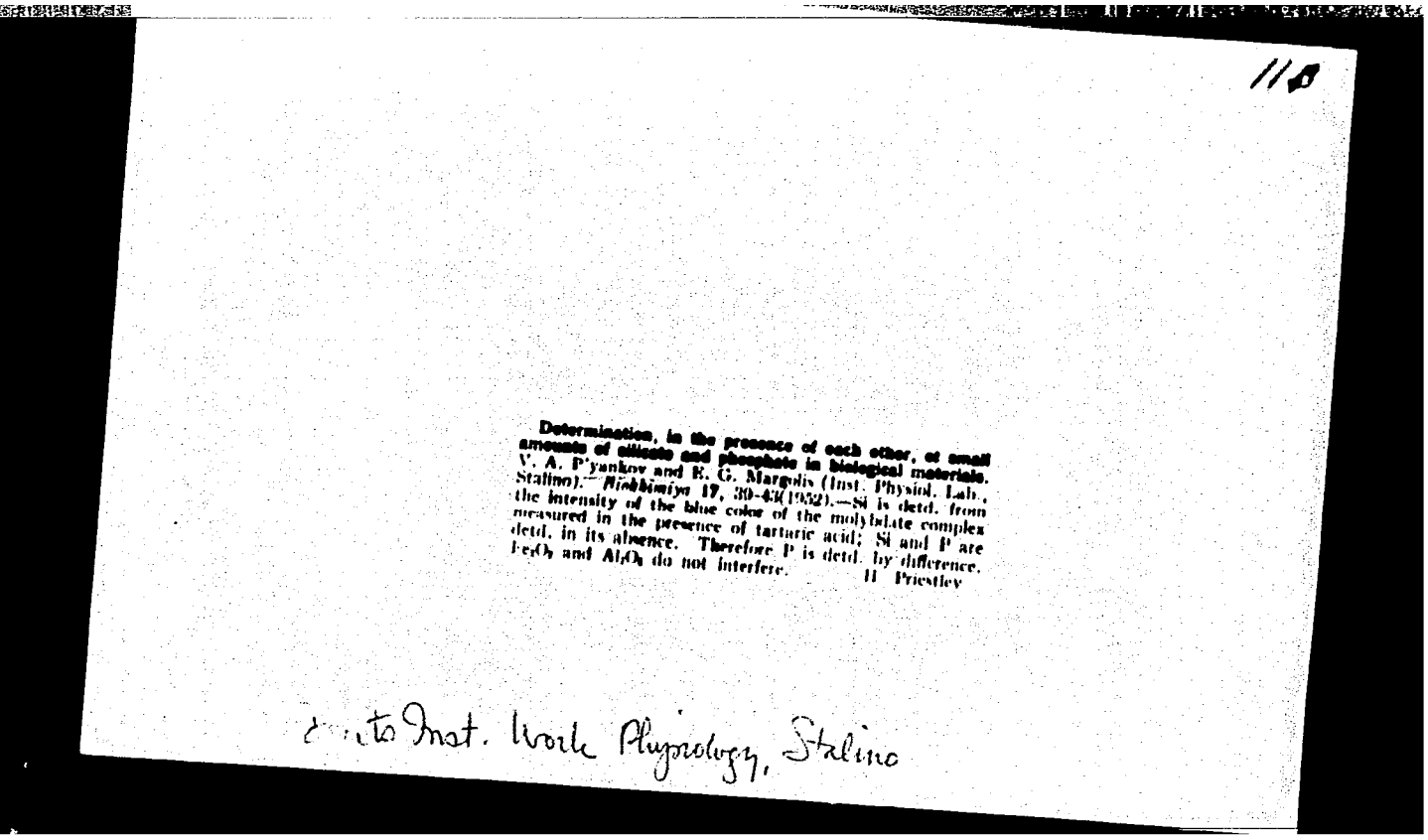
"Oxidation and Evaporation of Mercury From Its Surface and the Sorption of Its Vapors." Sub 18 Jun 51, Moscow State Pedagogical Institute V. I. Lenin. Dr. Chem. Sci.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

P'YANKOV, V.A.

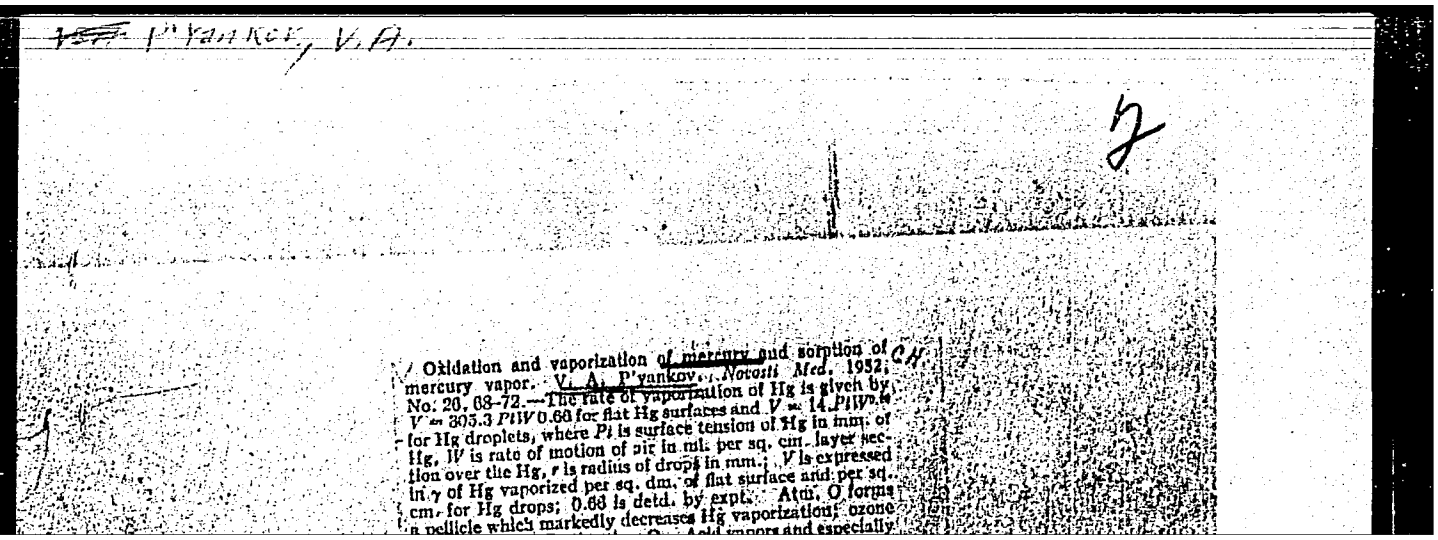
Oxidation and evaporation of mercury and sorption of its vapors.
Nov.med. no.26:68-72 '52. (MIRA 11:1)
(MERCURY--TOXICOLOGY)



110

Determination, in the presence of each other, of small amounts of silicate and phosphate in biological materials. V. A. P'yankov and E. G. Margolis (Inst. Physiol. Lab., Stalino).—*Biokhimiya* **17**, 39-43(1952).—Si is detd. from the intensity of the blue color of the molybdate complex measured in the presence of tartaric acid; Si and P are detd. in its absence. Therefore P is detd. by difference. Fe_2O_3 and Al_2O_3 do not interfere. H. Priestley

Inst. Work Physiology, Stalino



P'yankov, V. A.

Oxidation and vaporization of mercury and sorption of mercury vapor. V. A. P'yankov. *Notosti Med.* 1952, No. 20, 68-72.—The rate of vaporization of Hg is given by $V = 305.3\ PIW\ 0.68$ for flat Hg surfaces and $V = 14\ PIW\ 0.68$ for Hg droplets, where PI is surface tension of Hg in mm. of Hg, W is rate of motion of air in ml. per sq. cm. layer section over the Hg, r is radius of drops in mm.; V is expressed in γ of Hg vaporized per sq. dm. of flat surface and per sq. cm. for Hg drops; 0.68 is detd. by expt. Atm. O forms a pellicle which markedly decreases Hg vaporization; ozone

pletely removed from clothing *in vacuo* with [illegible] B. S. Levine:
of mild heat.

KOSTYUK, A.P.; P'YANKOV, V.A.

Equilibrium constants of the interaction of potassium bromomercurate and potassium iodomercurate with alkali. Zhur.neorg.khim. 2 no.7:1535-1537 Jl '57. (MIRA 10:11)

1. Odesskiy elektrotekhnicheskiy institut svyazi.
(Chemical equilibrium) (Potassium compounds) (Alkalies)

137-58-6-11477

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 32 (USSR)

AUTHORS: Arkad'ev, A.G., Zaretskiy, M.M., P'yankov, V.A.

TITLE: New Instruments for Automation of Titanium Production (Novyye pribory dlya avtomatizatsii titanovogo proizvodstva)

PERIODICAL: Tr. Vses. n.-i. alyumin.-magn. in-ta, 1957, Nr 40, pp 413-419

ABSTRACT: A description is presented of an instrument developed by VAMI for automatic identification of the most highly heated working tip of a multiple junction thermocouple in the retort of a unit for thermal reduction of Ti with magnesium. The instrument consists of a device sensitive to sign with 2 telephone step selectors (SS) actuated by a synchronous low-power motor and serving to effect a differential connection of 2 thermocouple working tips to an electronic amplifier (EA). At the output of the EA there is a relay R1, which, jointly with another, R2, functioning en bloc with it, stops SS-2 and connects the EA and the regulating instrument that automatically controls the operating cycle of the unit with the working tip with the maximum temperature. Meanwhile SS-1 successively connects the

Card 1/2

New Instruments for Automation of Titanium Production

other junctions to the EA. If their thermo-emf (i.e., temperature) is at all times less than the thermo-emf of the working tip permanently connected through the SS-2, the SS-2 will remain in the same position. If any of the thermo-emf is greater, the SS-1 is shut off and stops, and the R1 connects the SS-2 which, on reaching the working tip connected through the SS-1, comes to a stop and turns on the SS-1 through the R2. The cycle is then repeated.

M.L.

1. Titanium--Production 2. Thermocouples--Temperature factors
3. Instruments--Design 4. Magnesium--Applications

Card 2/2

AUTHORS: P'yankov, V.A., Nikitina, Ye.S., Kostyuk, A.P. SOV/78-3-7-24/44

TITLE: On the Interaction Between Zinc and Oxygen in Solutions of Alkaline Halides (O vzaimodeystvii tsinka s kislorodom v rastvore galogenidov shchelochnykh metallov)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 7, pp 1608-1610 (USSR)

ABSTRACT: The velocity of the reaction of zinc with oxygen in solutions of chlorides, bromides, and iodides of potassium at various temperatures and various concentrations of the reacting substances was investigated.
The reaction velocity of the interaction between zinc and oxygen increases from iodide to chloride. The reaction develops probably according to the following scheme:
$2\,Zn + O_2 + 8\,Cl^- + 2\,H_2O = 2\,ZnCl_4^{2-} + 4\,OH^-$. The results indicate that in the first stage of this reaction unstable zinc-halide complex salts are formed from the solutions of which the surplus zinc-portion is precipitated while zinc hydroxide or basic zinc halide is formed. There is a linear connection between the concentration of oxygen and the quantity of zinc. The

Card 1/2

On the Interaction Between Zinc and Oxygen in Solutions of Alkaline Halides SOV/76-3-7-24/44

concentration of the halides exercises comparatively little influence upon reaction velocity. With an increase of halide concentration to 16 times its amount, reaction velocity increases by 3 to 4 times its amount. Also the concentration of zinc in the solution exercises only little influence on the velocity of reaction. There are 3 figures, 3 tables, and 4 references, 3 of which are Soviet.

SUBMITTED: June 28, 1957

1. Zinc--Chemical reactions 2. Oxygen--Chemical reactions
3. Alkali halide solutions--Chemical properties

Card 2/2

SOV/136-59-1-13/24

AUTHORS: Arkad'yev, A.G., P'yankov, V.A., Strelets, Kh.L. and Forsblom, G.B.

TITLE: Development of a System for Automatic Control of the Magnesium-Thermic Titanium Reduction Process (Razrabotka skhemy avtomaticheskogo regulirovaniya protsessa magniytermicheskogo vosstanovleniya titana)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 1, pp 53-62 (USSR)

ABSTRACT: The authors describe the titanium production process in which the tetrachloride reacts exothermically with magnesium at a temperature of 850-900°C and over. They suggest that control of this process requires control of tetrachloride feed and reaction-vessel cooling, of charging of magnesium and discharging of magnesium chloride and of non-reactive zone heating. They describe work on the possible automation of the process; Engineers L.B. Kurelyuk, N.A. Plakhotnikova, I.B. L'vin and R.A. Sandler participated. Studies of temperature distribution in reaction vessels showed that temperatures at a given level were uniform within 15-20°C (except at the start), but the level of maximal temperature shifts during the process (Fig 2 shows temperature vs time

Card 1/4

Development of a System for Automatic Control of the Magnesium-Thermic Titanium Reduction Process

curves for levels 1-5 (in ascending order of height) against time (hours)). From an examination of the requirements for automation they conclude that the system should be based mainly on keeping the process at the maximal temperature and mention that a suitable device has been described (Ref 2). The authors outline the system they have developed. In this (Fig 3), PSR1 potentiometers, connected to the appropriate junctions of multiple-junction thermocouples, control the heating of the upper and lower parts of the reaction vessel; the middle-zone temperature is measured by an EPP-120-2S potentiometer to which the maximal-temperature finder automatically connects the highest-temperature junction of those in that zone; during the heating the zone-temperature is controlled by a contact on the potentiometer, operating, through a type IR-130 controller and a type IM-2/120 actuating mechanism, the regulating valve for the tetrachloride flow; this flow is also controlled by the pressure in the vessel (the manometer being

Development of a System for Automatic Control of the Magnesium-Thermic Titanium Reduction Process

provided with a DSR 1 secondary instrument with contacts), manually, or remotely by a transducer PD1 and a secondary device EPID-05 with an integrator; a computer provides, depending on signals from the integrator for the appropriate influxes of tetrachloride, the tapping of magnesium chloride and magnesium addition and the ending of the process. The authors give descriptions of the circuits (Fig 4), the ITM-205 maximal-temperature finder (made by the KB TsMA) and the multiple-junction couples it requires, the control valve and the flow transducer J type PDi (Fig 5). They outline tests on a pilot-plant scale installation which showed that the temperature control (Fig 6) was better than with manual regulation (Fig 7) and that better-quality processes with higher

Development of a System for Automatic Control of the Magnesium-Thermic Titanium Reduction Process

productivities were obtained with automation (Table). They state that the automatic system has functioned well in full-scale tests.
There are 6 figures, 1 table and 4 Soviet references.

P'YANKOV, V.A.; KOSTYUK, A.P.

Formation of an oxide film on the surface of copper. Ukr.khim. zhur. 26 no.1:138-141 '60. (MIRA 13:5)

1. Odesskiy elektrotekhnicheskiy institut svyazi.
(Copper oxide)

PIYANKOV, V.A.; MAZOVER, N.D.; SHCHETURNA, N.S.

Solubility of cadmium oxide in solutions of potassium citrate and oxalate. Ukr. khim. zhur. 30 no.10:1110-1111 '64.
(MIRA 17:11)

1. Odesskiy politekhnicheskiy institut.

[illegible] N.G.; MAL'CHIN, V.M.; P'YANKOV, V.A.; SOKOLOV, I.I.

Development of the standard process for the production of titanium sponge. Zhur.prikl.khim. 38 no.6:1217-1224 Je '65.

(MIRA 18:10)

P'YANKOV, V.A.; GORELOVA, Ye.M.; TEL'NYUK, Ye.N.

Solubility of zinc oxide in solutions of citrates, tartrates, and oxalates of potassium and sodium. Zhur.neorg.khim. 9 no.4:1007-1008 Ap '64. (MIRA 17:4)

P'YANKOV, V. A.

Rate of absorption of certain gases by mercury on its surface. Ukr. khim. zhur. 28 no.5:585-589 '62. (MIRA 15:10)

1. Odesskiy politekhnicheskiy institut.

(Absorption) (Mercury)

LIPKIN, Z.G., gornyy inzh.; P'YANKOV, V.A., inzh.; LIPKIN, Z.G., gornyy inzh.; GOL'TSMAN, A.I., gornyy inzh.; PRIKHOD'KO, V.Ye., gornyy inzh.

New machinery developed by the Perm State Institute for the Design and Construction of Mining Machinery. Ugol' 36 no.7: 56-57 Jl '61. (MIRA 15:2)
(Perm--Coal mining machinery--Design and construction)

MEDVEDEV, Yu.A. (Khabarovsk); P'YANKOV, V. (Khabarovsk); KORCHAGINA, S. (Khabarovsk)

Observation of partial lunar eclipse of March 2, 1961.
Astron.tsir. no.220:8-9 Ap '61. (MIRA 14:10)
(Eclipses, Lunar--1961)

PRIKHOD'KO, V.Ye., gornyy inzh.; P'YANKOV, V.A., inzh.

K-31 filling machinery unit for wide work entry drifting with a high waste floor. Ugol' 36 no.9:19-20 S '61. (MIRA 14:9)

1. Institut Permgiprogormash.
(Kizel Basin--Coal mines and mining)

24010
S/080/61/034/006/013/020
D247/D305

16 3100

AUTHORS: Voznitskiy, A.I., Perfil'yev, O.V., P'yankov, V.A., and Sandler, R.A.

TITLE: Some temperature peculiarities during the reduction of titanium tetrachloride by sodium

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 6, 1961, 1381 - 1384

TEXT: A large industrial scale reactor was used for the work mentioned in the title. Titanium tetrachloride was added continuously and rapidly; liquid sodium was added periodically when the previous quantity of reducing agent had been 95-98 % used. There was no inner reaction flask and the reactor surface was air cooled from a fan. The inner wall temperature was measured by a five-junction chromel-alumel thermo-couple, housed in a protective stainless steel case. The surface temperature was measured by a single-pointed thermo-couple passing through the roof. The outer wall

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Some temperature peculiarities ...

temperature by welded thermocouples close to the wall. In the early stages of the reaction the temperature rises from bottom to top of the reactor. Addition of titanium tetrachloride causes a rapid rise in the temperature in the upper part of the reactor so that in 15-20 minutes, feeding of tetrachloride must cease to avoid melting of the thermocouple coverings and screen. When 60-75 % of the reducing agent has been used up the maximum temperature moves to the central region. As more sodium is used the fusion temperature rises sharply and the temperature above the fusion bath falls. The cycle is repeated on adding more reducing agent. The characteristic time-temperature curves for this reaction are given graphically. These temperature changes are related to the utilization coefficient of the reducing agent and depend on two things: the high sodium vapor tension at the given temperature and the ability of sodium to dissolve in the considerable amounts of sodium chloride formed. A sodium surplus leads to vaporization of the reducing agent, as a result of which the reaction continues in the gaseous phase. Therefore, the temperature above the fusion rises. The more

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sodium chloride is formed, the more sodium is dissolved. When no surplus sodium remains vaporization ceases and reduction only continues through the interaction of titanium tetrachloride and the fusion containing the dissolved sodium. The utilization coefficient can be calculated as follows: The maximum coefficient is assumed to be x. Then the amount of sodium remaining is 1-x; the amount of sodium chloride formed according to the reaction $4Na + TiCl_4 = 4NaCl + Ti$ will be 2.55x. If the solubility of sodium in sodium chloride is P(wt. %) then

$$1 - x = \frac{P}{100} \cdot 2.55x, \text{ whence } x = \frac{1}{1 + 0.0255P}. \quad (1)$$

The high temperature may lead to overheating and melting of parts of the apparatus. This can be avoided by slowing the addition of titanium tetrachloride. The cases of the inner and screen thermocouples are worst placed. The external thermocouples show the wall temperature more accurately; the inner give a comparatively higher reading and thereby hinder any intensification of the process. The

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D247/D305

Some temperature peculiarities ...

discrepancy is small (50-70°) on the fusion level at low speeds, but increases with rise in speed (to 100-150°). Above the fusion level the discrepancy may reach 200-220°, though the wall temperature does not exceed 600-700°. Experiments using 10 thermocouples confirmed this. Therefore, when controlling the temperature by three or four vertically placed thermocouples there must be a reserve of 100-150° in the temperature band in the fusing region. The wall temperature must not exceed 800-820° with air cooling. The wall temperature at the fusion level must be watched and, with periodic filling, the screen temperature. If the utilization coefficient is kept above 90-92° by continuous feeding of sodium simultaneously with titanium tetrachloride the need for screen temperature control will decline because the unused sodium will dissolve in the salt and there will be a minimum of reaction in the gaseous phase. The reduction process can thus be intensified. There are 4 figures, 1 table and 1 non-Soviet-bloc reference. The reference to the English-language publication reads as follows: M.A. Breding, I.W. Johnson, J.A. Chem. Soc., 77, 307, 1955.

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24010
S/080/61/034/006/013/020
D247/D305

Some temperature peculiarities ...

ASSOCIATION: Vsesoyuznyy alyuminiyevo-magniyevyy institut (All-Union Institute of Magnesium and Aluminum)

SUBMITTED: July 2, 1960

Card 5/5

S/073/60/026/001/021/021
B004/B054

AUTHORS: P'yankov, V. A. and Kostyuk, A. P.

TITLE: Formation of an Oxide Film on Copper Surfaces

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1960, Vol. 26, No. 1, pp. 138-141

TEXT: The authors made a chemical determination of the thickness of oxide films on copper surfaces. They treated the surface of copper laminae with dilute sulfuric acid free from oxygen. The latter dissolves Cu_2O, but does not react with metallic copper at room temperature. Copper laminae were exposed to the action of air at various temperatures, and then treated with dilute H_2SO_4. The amount of dissolved Cu_2O was determined by titration of the dissolved Cu by means of dithizon. Fig. 2 shows the thickness of the oxide film as a function of the duration of action of different temperatures. Thickness and formation rate of the film increases with rising temperature. The authors discuss the deviating results found by A. G. Samartsev (Ref. 7). Whereas his data for 50° and

75°C agree quite well with those of the authors, Samartsev found at 100°C a steady increase in film thickness beyond 200 A. This contradicts the data of other investigators concerning the good protective action of the oxide film. Experiments at 20°C with O_2 dried by means of P_2O_5, and with O_2 saturated with water vapor, yielded a film thickness of 24 A in the case of dry O_2, one of 56 A in the case of moist O_2. D. I. Krasil'shchikov is mentioned. There are 4 figures and 7 references: 4 Soviet, 1 US, and 2 British.

ASSOCIATION: Odesskiy elektrotekhnicheskiy institut svyazi (Odessa Electrotechnical Institute of Communications)

SUBMITTED: January 8, 1959

Legend to Fig. 2: a) hours, b) film thickness

S/073/60/026/001/021/021
B004/B054

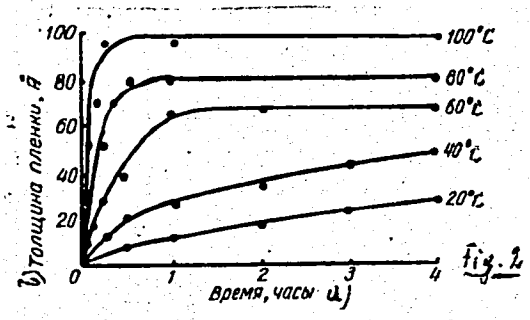

Fig. 2

Card 3/3

P'YANKOV, V.A.; KOGAN, Ye.A.

Reaction between cadmium and alkali metal halides with the participation of oxygen. Zhur. neorg. khim. 5 no.8:1696-1698 Ag '60.
(MIRA 13:9)

1. Odesskiy elektrotekhnicheskiy institut svyazi.
(Cadmium) (Alkali metal halides)

P'YANKOV, V.A.

Distr: 4E4j

Equilibrium constants for the reaction of potassium bromo- and iodomercurate with alkali. A. P. Kostyuk and V. A. P'yankov (Electrotech. Communications Inst., Odessa). *Zhur. Neorg. Khim.* 2, 1535–7(1957).—The equil. state for the reactions of $KHgI_3$ and $KHgBr_3$ with NaOH were studied, and the equil. consts. were detd. as 1.08×10^{-4} and 5×10^{-4}, resp. J. Roytal Leach

1/1

P'YANKOV, V.M.; DAVYDOV, G.M.

Concerning the co-called "structures without roots" of the Stalingrad type. Geol. nefti i gaza 5 no.4:27-30 Ap '61. (MIRA 14:4)

1. Nizhne-Volzhskiy nauchno-issledovatel'skiy institut geologii i geofiziki.

(Geology, Structural)

P'YANKOV, V.N., pensioner

Improving work sanitation in lubricating oil production.
Neftianik 6 no.2:27 F '61. (MIRA 14:10)
(Metal—Working lubricants)

P'YANKOV, V.N.

Regulating and shock-absorbing attachment for a dumping-proportioning device. Neftianik 5 no.7:22-23 Jl '60. (MIRA 14:9)
(Lubrication and lubricants)

P'YANKOV, V.N.

Mechanization of oil drum filling. Neftianik 5 no.6:18 Je '60.
(MIRA 13:7)
(Lubrication and lubricants)

P'YANKOV, V.P. (Moskva)

Mammoths and the riddle of climate. Priroda 54 no.10:86-94 '65.
(MIRA 18:10)

PLYANKOV, V.I

V novoy Rumynii /In new Rumania, by/ V.. Plyankov i P. Mel'nikov. Moskva, "Molodaya Gvardiya", 1953.
206 p. illus., port.

60:1/6
621.01
.P9

P'YANKOV, VL.

O novoi Rumynii [The new Rumania]. Moskva, Molodaia gvardiia, [1953?] 208 p.

SO: Monthly List of Russian Accessions, vol. 6 No. 11 February 1954

P'YANKOV, Vl

V novoy Rumynii [In new Rumania, by] Vl. P'yankov i P. Mel'nikov. Moskva, "Molodaya Gvardiya", 1953.
206 p. illus., port.

60M/6
621.01
.P9

LAZOVSKIY, I.M.; DONDE, M.V.; P'YANKOV, Y.A.

Averaging coals and blended charges in the piles and in the preparation section of the copruct coke plant. Koks i khim.no.2:12-17 '56.
(MLRA 9:7)

1.Vostochnyy uglekhimicheskiy institut (for Lazovskiy).2.Chelyabinskiy metallurgicheskiy zavod.
(Coal handling)

P'YANKOV, Ye.A.

Some remarks on the design and planning of the coal preparation sections of coke plants. Koks i khim. no.2:14-15 '61.
(MIRA 14:2)

1. Karagandskiy metallurgicheskiy zavod.
(Karaganda--Coal preparation)

DYATLOV, V.L.; DEMENT'YEV, S.K.; P'YANKOV, Yu.A.

Paramagnetic oscillations and rotation in ferromagnetic films.
Vych. sist. no.2:.6-23 '62. (MIRA 18:2)

L 19322-63 EWP(q)/EWT(m)/BDS AFFTC JD B
ACCESSION NR: AR3005869 S/0271/63/000/007/B034/B035

SOURCE: RZh. Avtomatika, telemekhanika i vy*chislitel'naya tekhnika, Abs. 7 B178

AUTHOR: Vishnevskiy, Ye. V.; Pyankov, Yu. A.

TITLE: The calculation of oscillating regions in a ferromagnetic film parametron

CITED SOURCE: Sb. Vy*chisl. sistemy*. Vy*p. 2. Novosibirsk, 1962, 24-30

TOPIC TAGS: parametron, ferromagnetic film parametron

TRANSLATION: The calculations were made by means of a system of equations which was reduced to a single differential equation if it is assumed that the winding of the parametron covers the film completely and that losses in the winding and the capacitance of the parametron can be neglected. The equation obtained in this way was solved on an electronic digital computer by Euler's method. A number of the parameters in the equation were varied in the course of the solution. The author presents graphs of the obtained relationships which can be used as guides in solving ferromagnetic film parametrons. There are nine illustrations. G. V.

DATE ACQ: 15Aug63 SUB CODE: GE, MM ENCL: 00

Card 1/1

P'YANKOV, Yu.A.

Calculation of the areas of rotation of the magnetization vector in one-domain ferromagnetic films. Vych. sist. no.2:31-36 '62.
(MIRA 18:2)

DYATLOV, V.L.; DEMENT'YEV, S.K.; P'YANKOV, Yu.A.

Use of the continuously rotating magnetic moment of ferromagnetic films in computer elements. Vych. tekh. no.4:13-15 '62.
(MIRA 16:6)
(Electronic computers)

44926

S/745/62/000/004/001/007
D201/D308

9.7140
16.6810

AUTHORS: Dyatlov, V. L., Dement'yev, S. K. and P'yankov, Yu. A.

TITLE: Application of the magnetic moment in ferromagnetic films to continuously rotating elements of computers

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Vychislitel'naya tekhnika, no. 4, 1962, 13-15

TEXT: The equation describing the motion of the magnetic moment in a single-domain magnetic film is analogous to that of the movement of a magnetic pointer. The simplest method of obtaining a continuous motion of magnetization vector is to use a film in which the periodically changing magnetic field is perpendicular to the axis of weak magnetization. The above equation has been solved on a computer at the Vychislitel'nyy tsentr Sibirskogo otdeleniya AN SSSR (Computer Center, Siberian Branch of the AS USSR). One of the solutions shows that the process of reversing occurs during a very short interval of time, approximately equal to one period of revolution of magnetization vector, thus making it possible to reverse

Card 1/2

AYZENSHTAYN, P.G.; ALLAYAROVA, F.R.; P'YANKOVA, G.V.; ZOLOTAREVA, N.N.

Chemical-flotation and electric-flotation methods for the purification of waste waters. Nefteper. i neftekhim. no. 3: 18-21 '64. (MIRA 17:5)

1. Gor'kovskiy neftemaslozavod im. 26 Bakinskikh komissarov i TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.

DOBATSKIY, A.V.; P'YANKOVA, G.V.

Alkoxy compounds. Part 14: Pyrolysis and catalytic dealcoholation of methyl-α-propoxyethyl and α-isopropoxyethylmalonic acids. Zhur. ob. khim. 35 no.4:619-621 Ap '65. (MIRA 18:5)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova.

BOGATSKIY, A.V.; PYANKOVA, G.V.

Syntheses based on alkoxyethylalkylmalonic esters. Part 9: Transformations of alkyl-α-propoxy- and alkyl-α-isopropoxyethylmalonic esters by the action of alcoholic potassium hydroxide and hydrochloric acid. Zhur. ob. khim. 34 no.9: 2939-2942 S '64. (MIRA 17:11)

1. Odesskiy gosudarstvennyy universitet imeni I.I.Mechnikova.

SAMITOV, Yu.Yu.; BOGATSKIY, A.V.; GORYACHUK, N.A.; P'YANKOVA, G.V.

Synthesis based on alkoxyethylalkylmalonic esters. Part 10: Nuclear (proton) magnetic resonance spectra of alkyl-α-alkoxyethylmalonic esters and their transformation products. Zhur. ob. khim. 34 no.9:2942-2948 S '64.

(MIRA 17:11)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova i Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina.

L 20078-65 EWT(m)/EWP(b)/T/EWA(d)/EWP(t) MJW/JD
ACCESSION NR: AP4049107 S/0129/64/000/011/0037/0038

14
12
B

AUTHOR: Gol'denberg, A. A.; Doronin, V. M.; P'yankova, I. D.

TITLE: The optimal range for heat treatment of steel 1Kh12N2VMF

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1964, 37-38

TOPIC TAGS: steel tempering, steel quenching, steel heat treatment, steel mechanical property/steel 1Kh12N2VMF

ABSTRACT: Rod-shaped samples of steel 1Kh12N2VMF (0.12% C, 11.12% Cr, 1.64% Ni, 0.45% Mo, 0.22% V, 0.33% Si, 0.42% Mn, 0.016% S, and 0.022% P), 20 mm in diameter

micrograph.

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L 20078-65
ACCESSION NR: AP4049107

2

ASSOCIATION: Vsesoyuzny*y zaochny*y mashinostroitel'ny*y institut (All-Union Machine Design Correspondence Institute); Zavod "Elektrostal'" ("Elektrostal'" Plant)

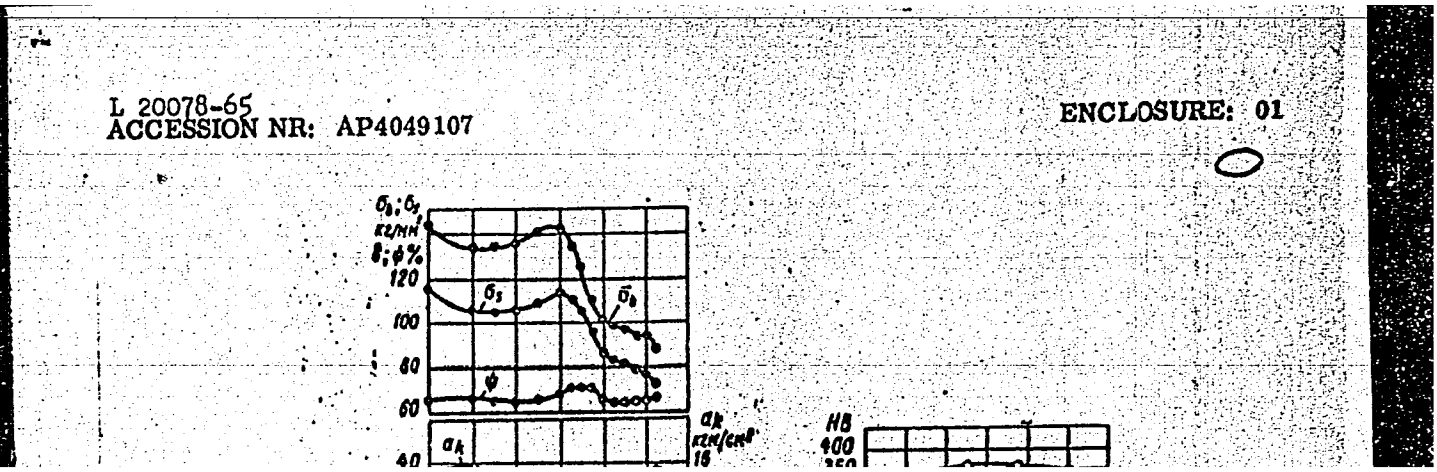
SUBMITTED: 00 ENCL: 01 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 2/3

L 20078-65
ACCESSION NR: AP4049107

ENCLOSURE: 01



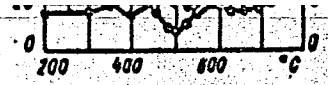


Fig. 1. (upper graph) Mechanical properties of steel 1Kh12N2VMF as a function of tempering temperature (σ_b, σ_s in kg/mm^2, a_k in kgm/cm^2, δ, ψ in %). (Quenched in oil from 1000C.) (lower graph) Hardness as a function of quenching temperature (quenching in oil).

Card 3/3

KONYUKHOV, V.N.; P'YANKOVA, L.N.; PUSHKAREVA, Z.V.

Syntheses in the phenanthroline series. Zhur.ob.khim. 32 no.8:2745-2746 Ag '62. (MIRA 15:9)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova.
(Phenanthroline)