PAVLINOV, V.S.

Using epoxy resins for sealing cavities. Mashinostroitel' no.8:25 Ag '60. (MIRA 13:9)

(Epoxy resins)

PAVLINOV, Ya.

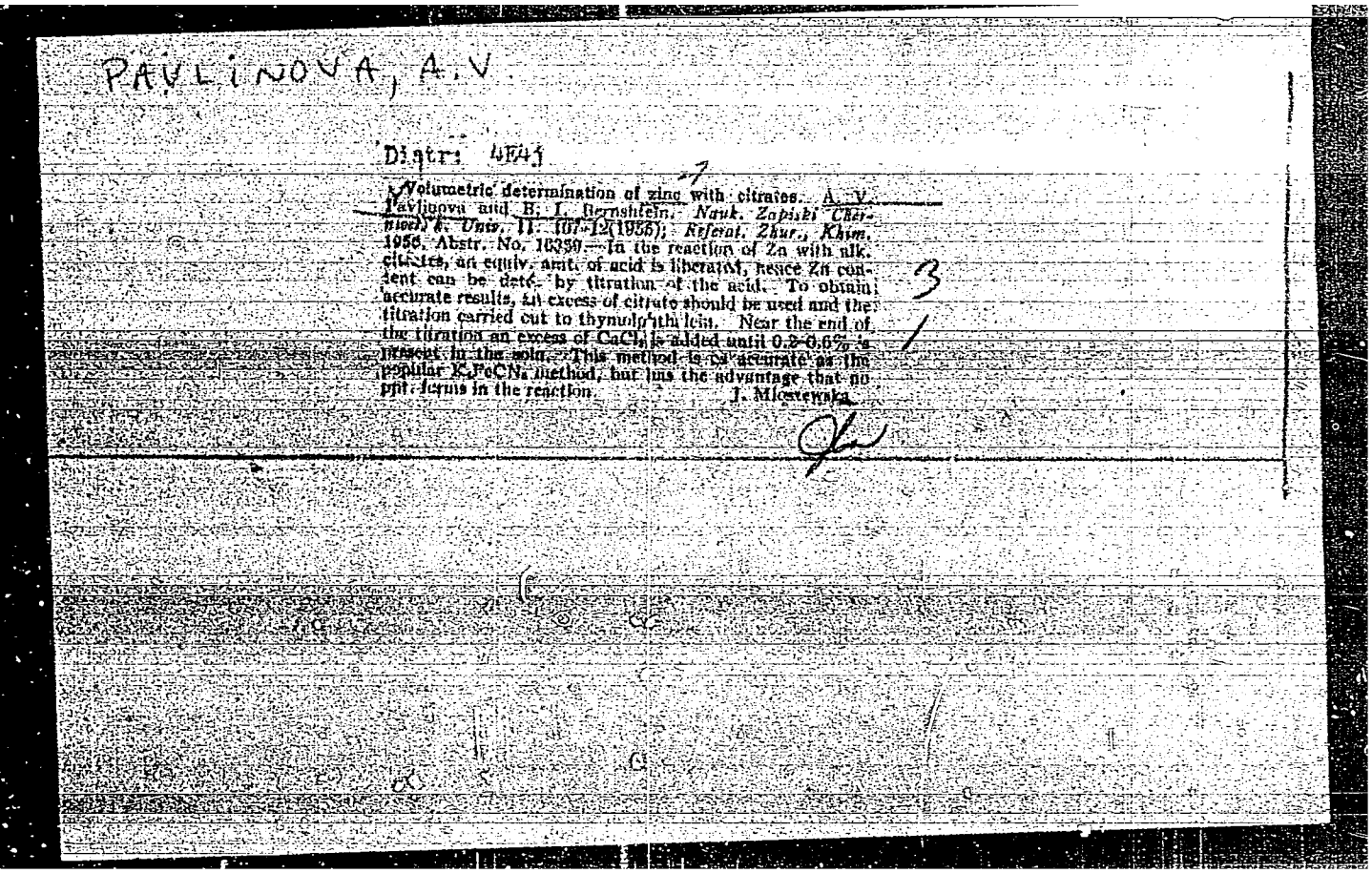
Place more emphasis on inventions and suggestions for greater efficiency. (MIRA 8:5)
Muk.-elev.prom. 21 no.1:6-7 Ja '55.

1. Ministerstvo zagotovok SSSR.
(Grain handling)

PAVLINOVA, A. O., AFANASYEVA, T. P., (USSR)

"The Nucleotides and Phosphorylated Sugars of the Conducting Tissues."

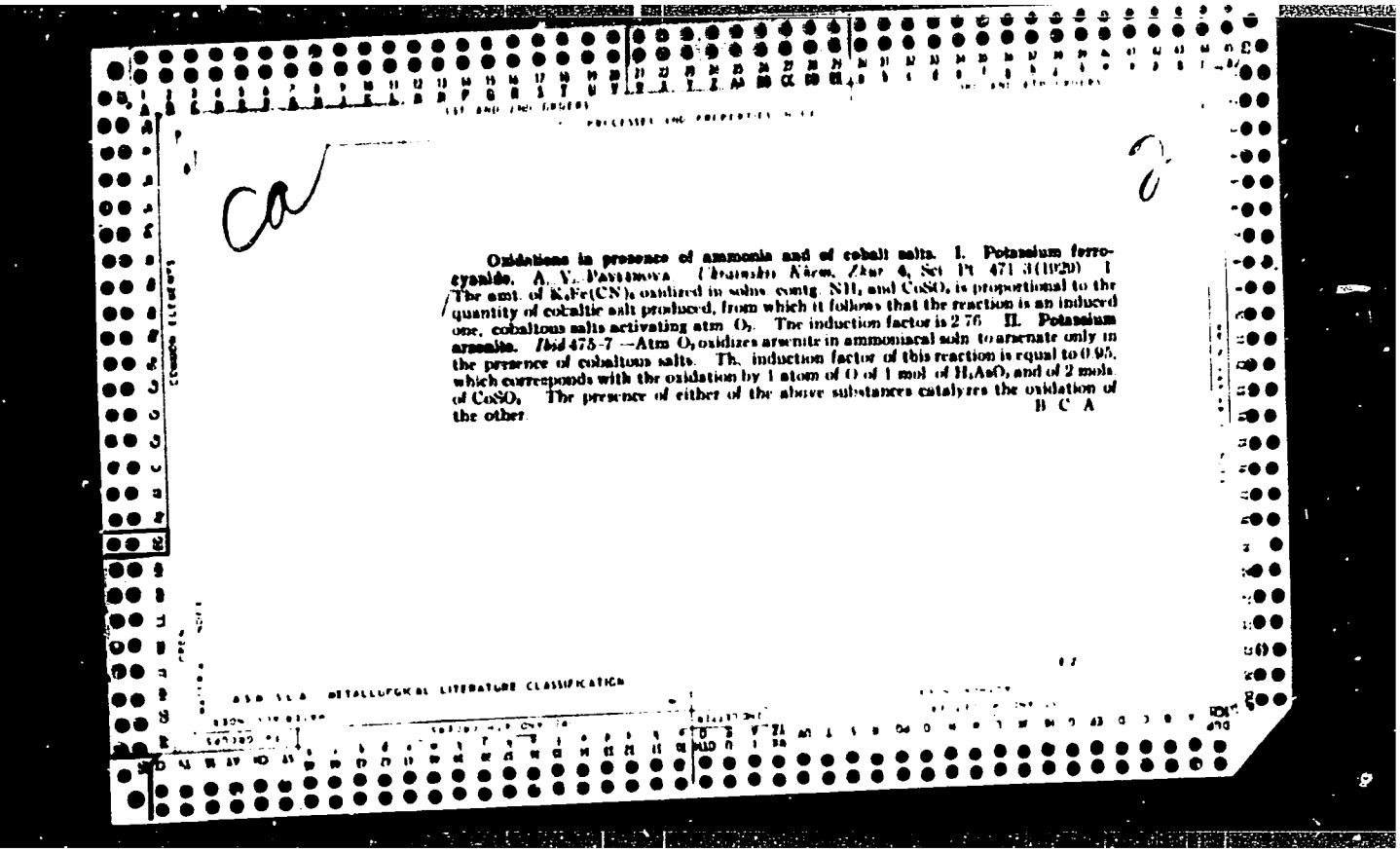
Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.



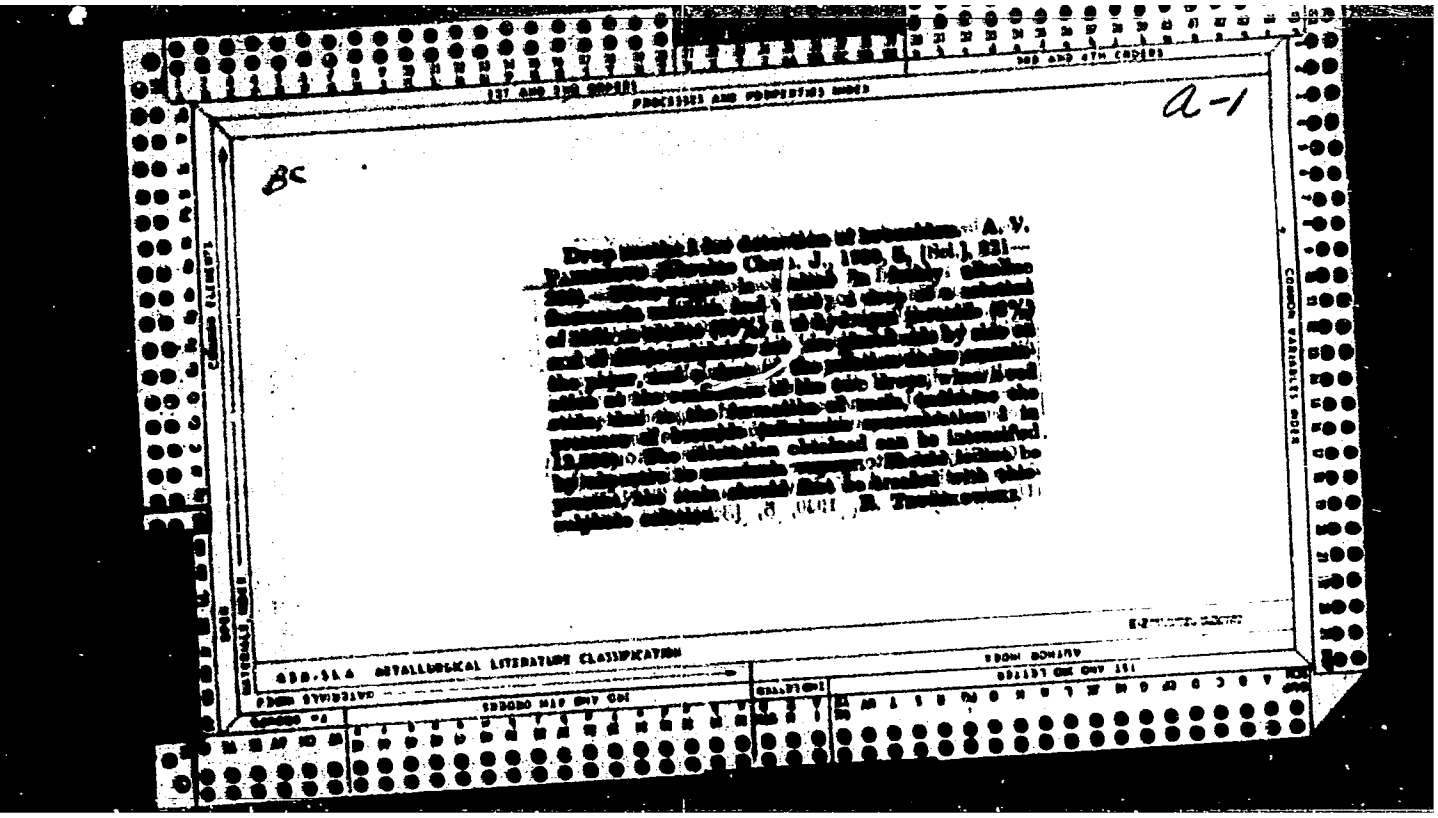
PAVLINOVA, A.V.

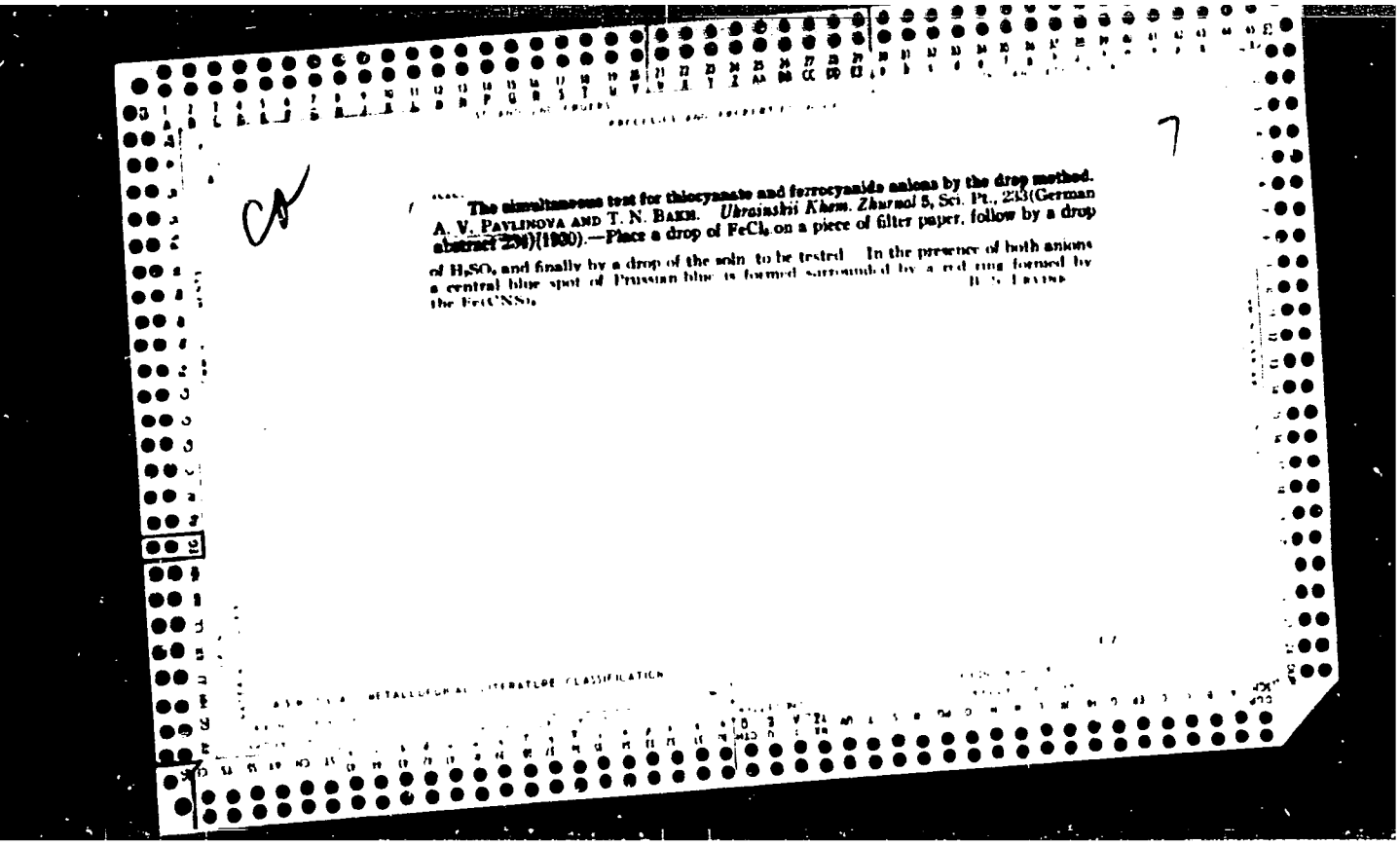
Distr: 4E4j

Volumetric determination of zinc with citrates. A. V. Pavlinova and B. I. Bernshtein. *Nauk. Zapiski Chernivets'k. Univ.*, 11: 107-12(1956); *Referat. Zhur., Khim.* 1956, Abstr. No. 16350.—In the reaction of Zn with alk. citrates, an equiv. amt. of acid is liberated, hence Zn content can be detd. by titration of the acid. To obtain accurate results, an excess of citrate should be used and the titration carried out to thymolphthalein. Near the end of the titration an excess of $CaCl_2$ is added until 0.2-0.6% is present in the soln. This method is as accurate as the popular K_4FeCN_6 method, but has the advantage that no ppt. forms in the reaction. J. Mioduszewska

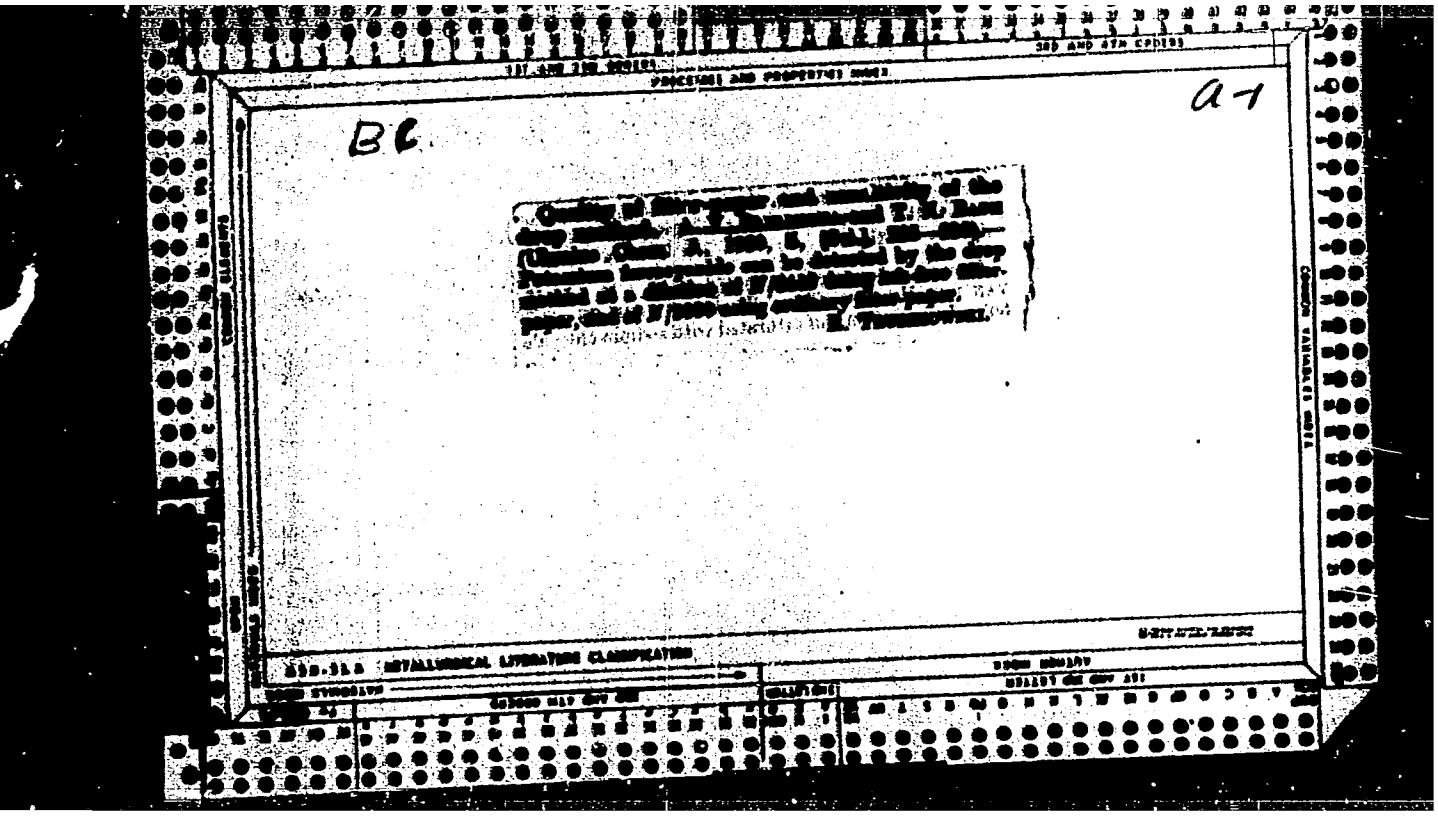


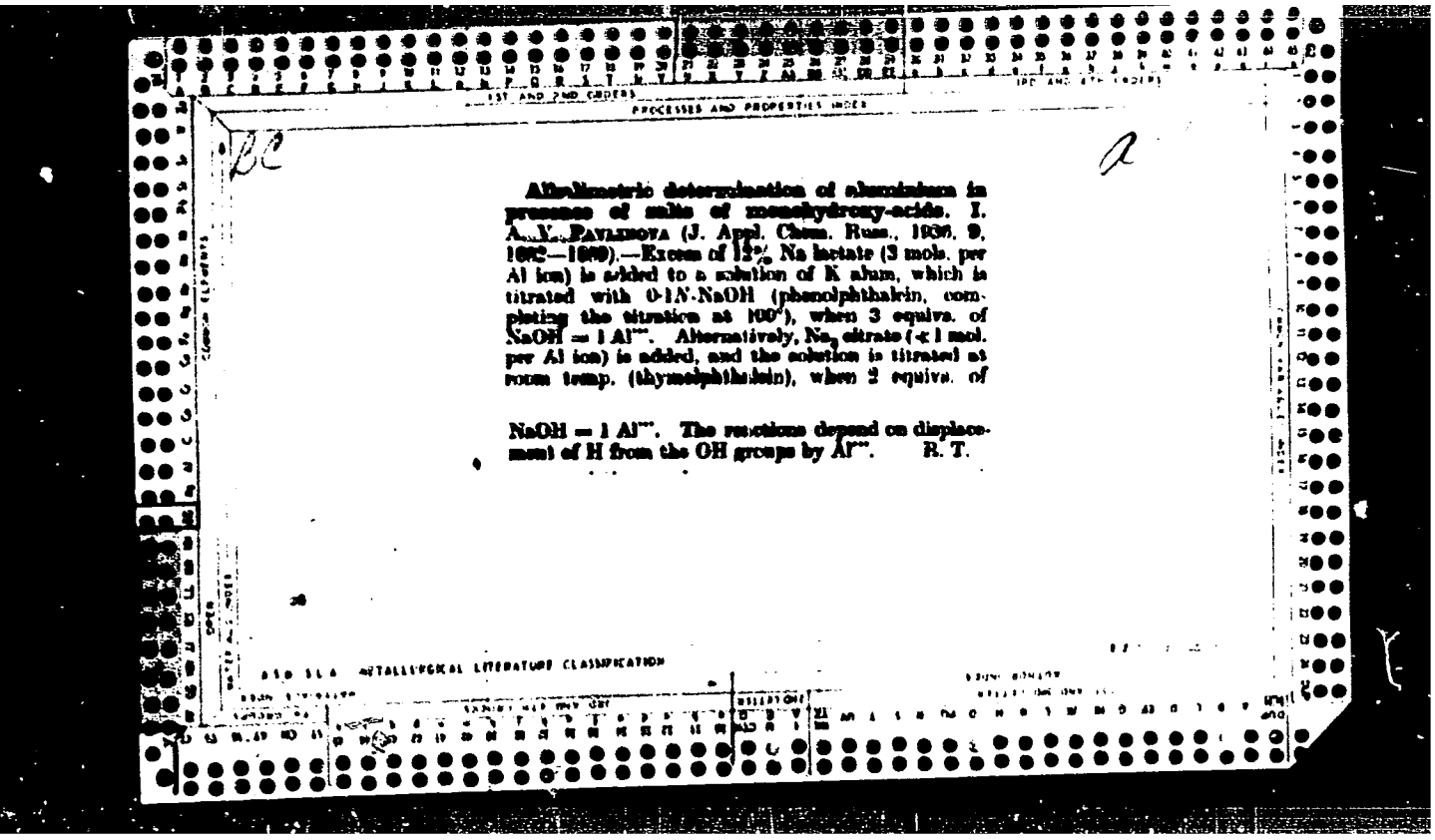
Oxidations in presence of ammonia and of cobalt salts. I. Potassium ferrocyanide. A. V. Pavlenova (Chernykh. Khrom. Zhur. 6, Sci Pt 471-3(1929)) I. The amt. of $K_4Fe(CN)_6$ oxidized in solns. contg. NH_3 and $CoSO_4$ is proportional to the quantity of cobaltic salt produced, from which it follows that the reaction is an induced one, cobaltous salts activating atm. O_2. The induction factor is 2.76. II. **Potassium arsenite.** *Ibid* 475-7.—Atm. O_2 oxidizes arsenite in ammoniacal soln. to arsenate only in the presence of cobaltous salts. Th. induction factor of this reaction is equal to 0.95, which corresponds with the oxidation by 1 atom of O of 1 mol. of H_3AsO_3 and of 2 mols. of $CoSO_4$. The presence of either of the above substances catalyzes the oxidation of the other. B C A



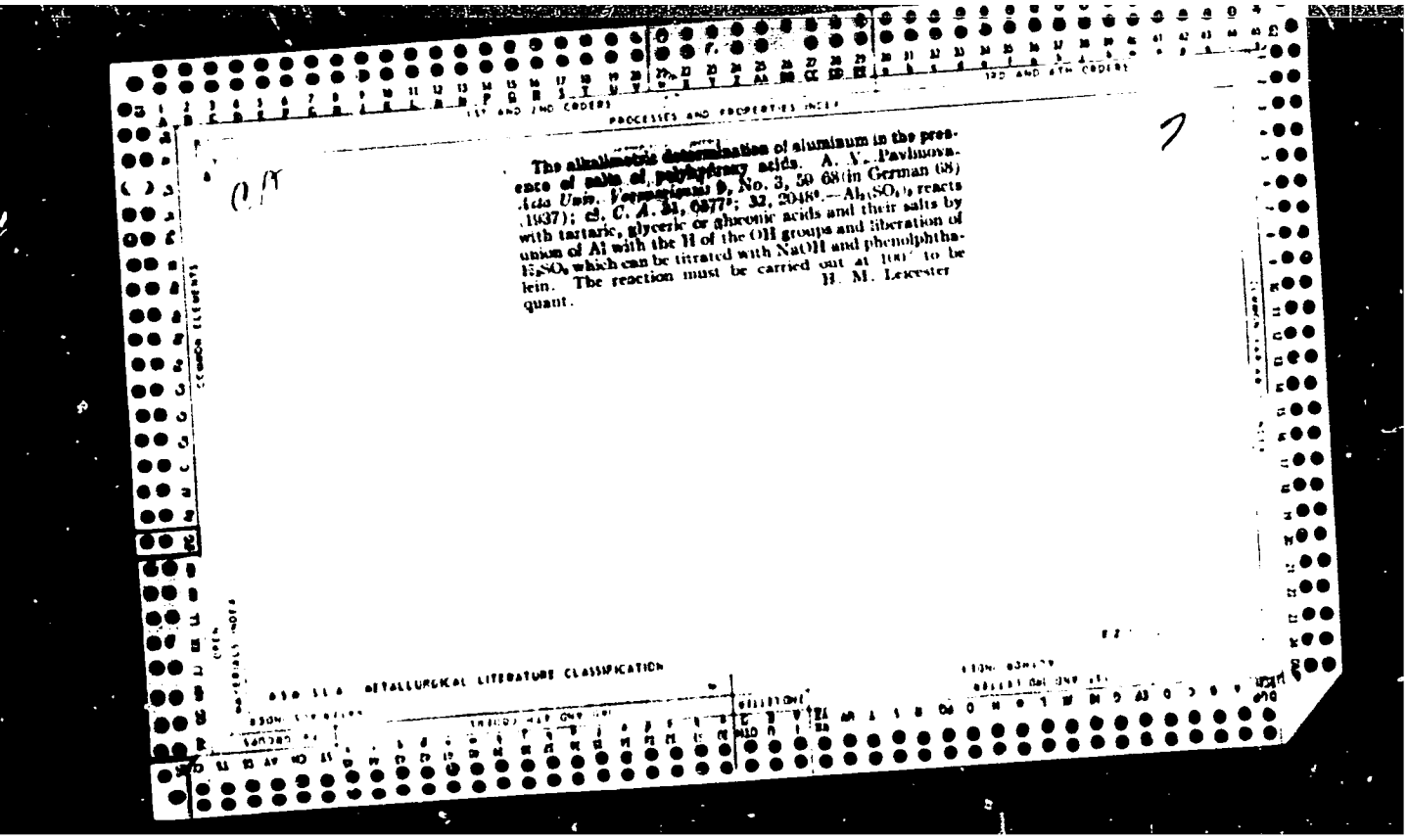


The simultaneous test for thiocyanate and ferrocyanide anions by the drop method. A. V. PAVLINOVA AND T. N. BAKH. *Ukrainskii Khem. Zhurnal* 5, Sci. Pt., 213(German abstract 234)(1930).—Place a drop of $FeCl_3$ on a piece of filter paper, follow by a drop of H_2SO_4 and finally by a drop of the soln. to be tested. In the presence of both anions a central blue spot of Prussian blue is formed surrounded by a red ring formed by the $Fe(CNS)_3$.



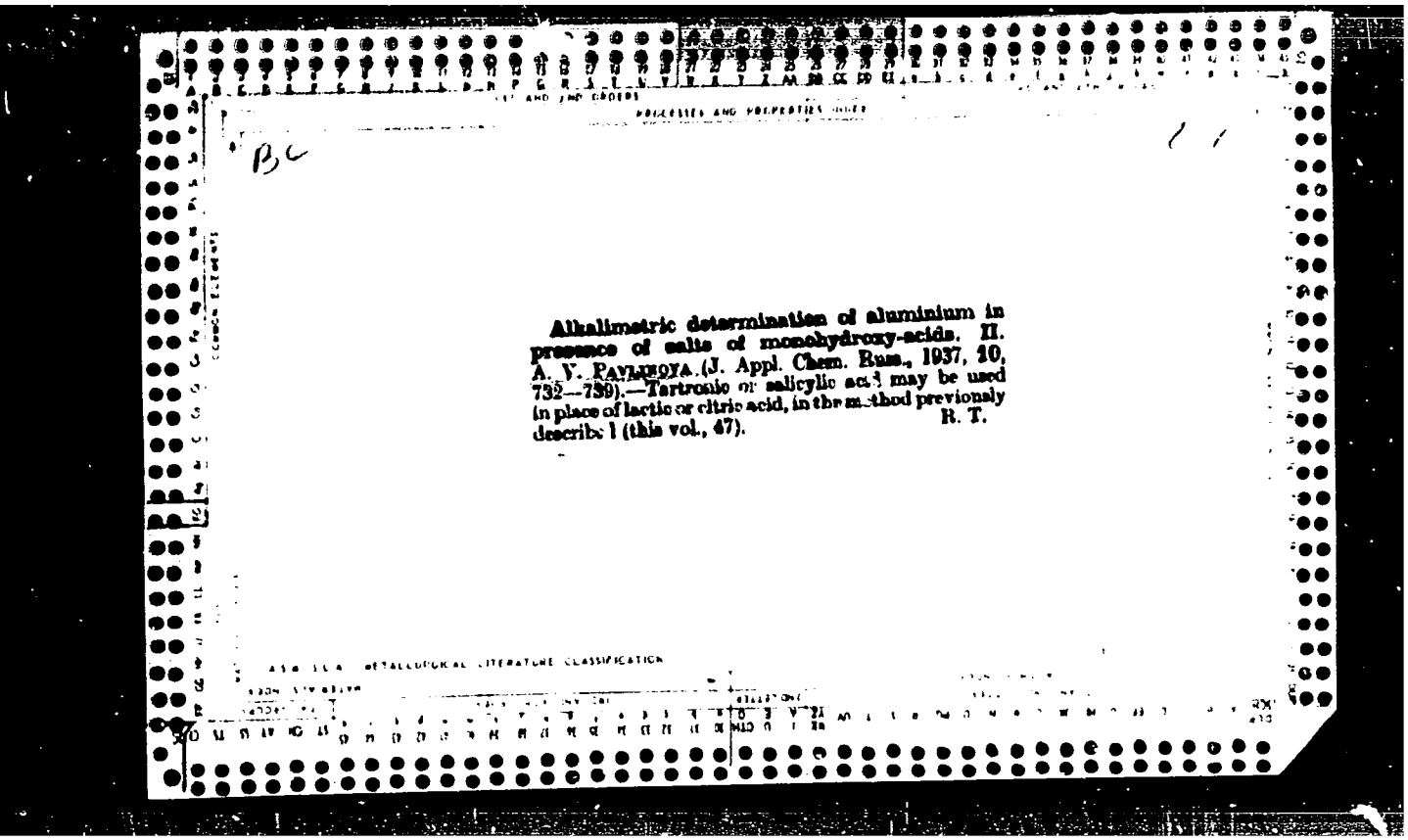


Alkalimetric determination of aluminium in presence of salts of monohydroxy-acids. I. A. V. Pavlenova (J. Appl. Chem. Russ., 1936, 9, 1862—1869).—Excess of 12% Na lactate (3 mols. per Al ion) is added to a solution of K alum, which is titrated with 0·1*N*-NaOH (phenolphthalein, completing the titration at 100°), when 3 equivs. of NaOH = 1 $Al^{'''}$. Alternatively, Na_3 citrate (< 1 mol. per Al ion) is added, and the solution is titrated at room temp. (thymolphthalein), when 2 equivs. of NaOH = 1 $Al^{'''}$. The reactions depend on displacement of H from the OH groups by $Al^{'''}$. R. T.

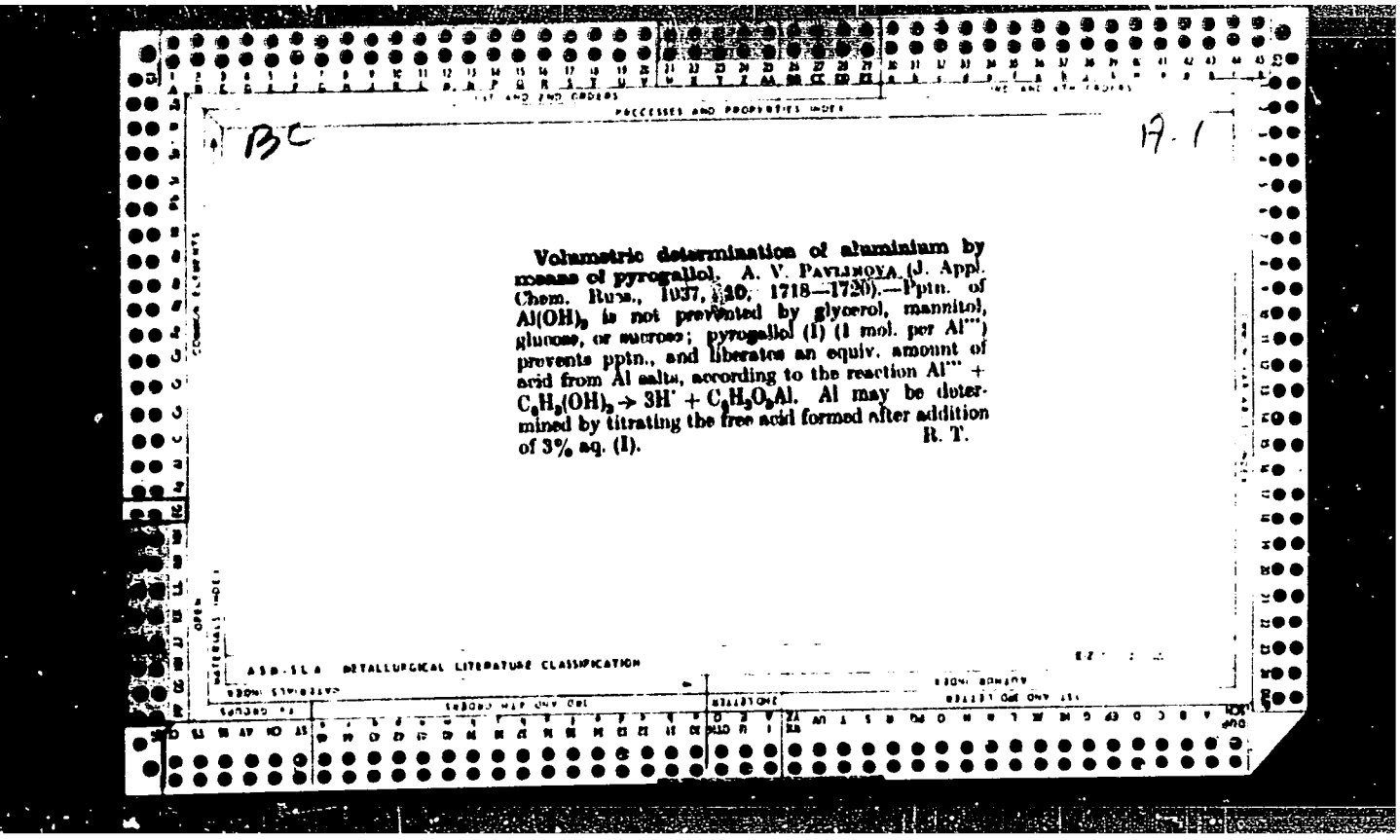


The alkalimetric determination of aluminum in the presence of salts of polybasic acids. A. V. Pavlinova. *Izdat. Univ. Permskom.* 9, No. 3, 59–68 (in German 68) (1937); cf. *C. A.* 31, 6877⁸; 32, 2048⁸.—$Al_2(SO_4)_3$ reacts with tartaric, glyceric or gluconic acids and their salts by union of Al with the H of the OH groups and liberation of H_2SO_4 which can be titrated with NaOH and phenolphthalein. The reaction must be carried out at 100° to be quant.

H. M. Leicester



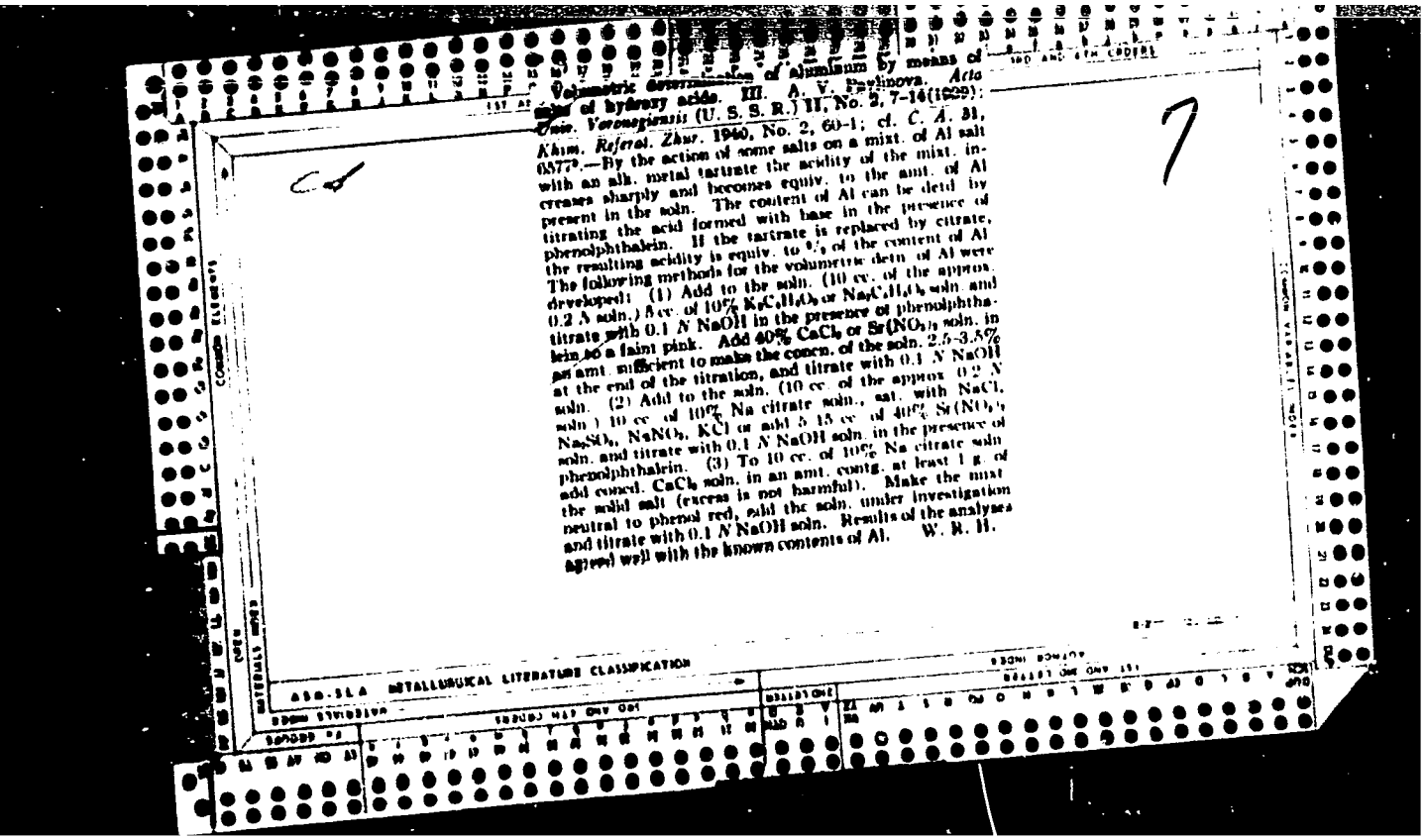
Alkalimetric determination of aluminium in presence of salts of monohydroxy-acids. II. A. V. PAVLENOVA. (J. Appl. Chem. Russ., 1937, 10, 732—739).—Tartronic or salicylic acid may be used in place of lactic or citric acid, in the method previously described (this vol., 47). R. T.



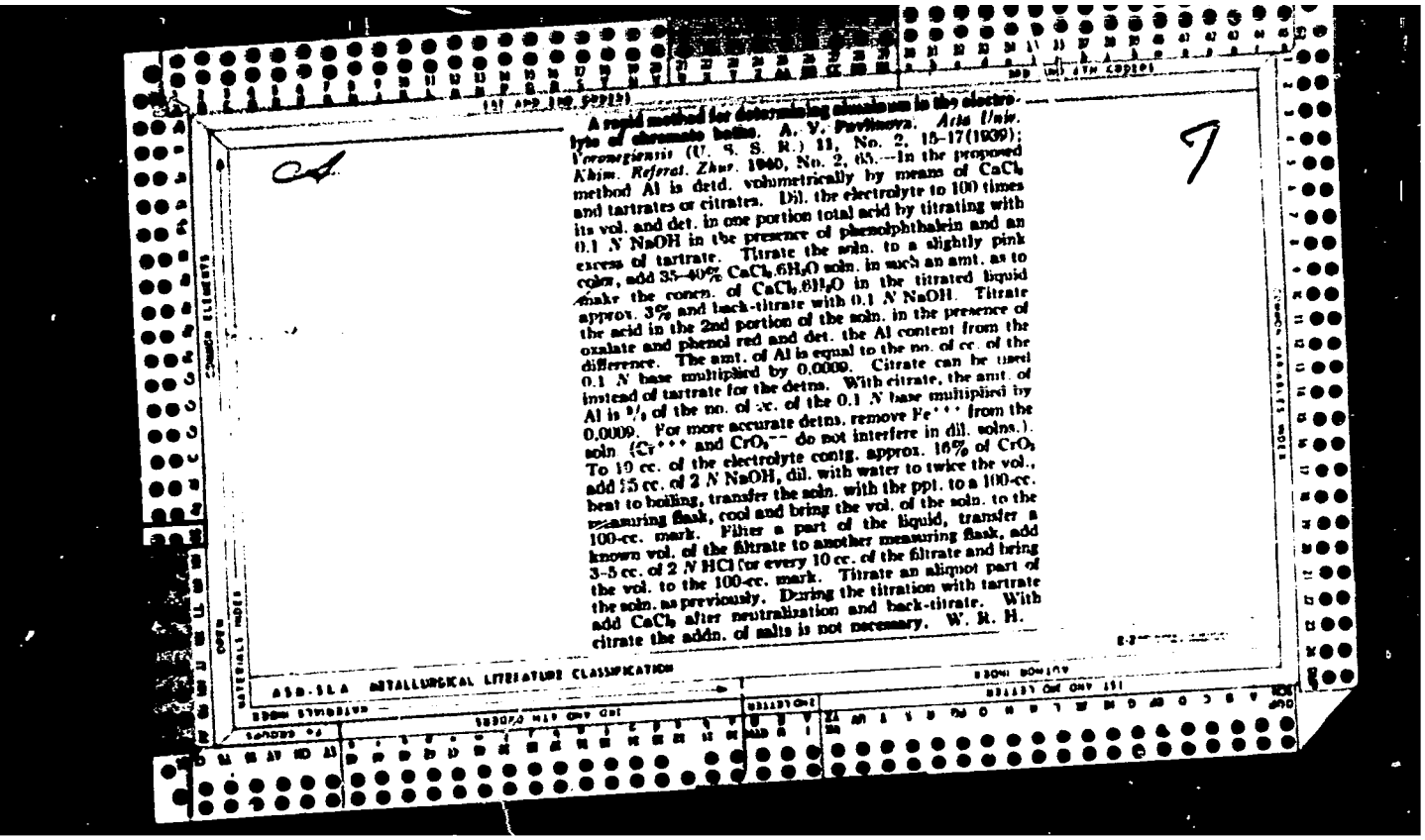
BC

17-1

Volumetric determination of aluminium by means of pyrogallol. A. V. PAVLENOVA. (J. Appl. Chem. Russ., 1937, 10, 1718—1720).—Pptn. of $Al(OH)_3$ is not prevented by glycerol, mannitol, glucose, or sucrose; pyrogallol (I) (1 mol. per $Al^{...}$) prevents pptn., and liberates an equiv. amount of acid from Al salts, according to the reaction $Al^{...} + C_6H_3(OH)_3 \rightarrow 3H^{...} + C_6H_3O_3Al$. Al may be determined by titrating the free acid formed after addition of 3% aq. (I). R. T.



Volumetric determination of aluminum by means of ... of hydroxy acids. III. A. V. Pavlinova. *Arta Univ. Veronegiensis* (U. S. S. R.) II, No. 2, 7-14(1929); *Chim. Referat. Zhur.* 1940, No. 2, 60-1; cf. *C. A.* 31, 6877⁹.—By the action of some salts on a mixt. of Al salt with an alk. metal tartrate the acidity of the mixt. increases sharply and becomes equiv. to the amt. of Al present in the soln. The content of Al can be detd. by titrating the acid formed with base in the presence of phenolphthalein. If the tartrate is replaced by citrate, the resulting acidity is equiv. to ⅔ of the content of Al. The following methods for the volumetric detn. of Al were developed: (1) Add to the soln. (10 cc. of the approx. 0.2 *N* soln.) 5 cc. of 10% $K_2C_4H_4O_6$ or $Na_2C_4H_4O_6$ soln. and titrate with 0.1 *N* NaOH in the presence of phenolphthalein to a faint pink. Add 40% $CaCl_2$ or $Sr(NO_3)_2$ soln. in an amt. sufficient to make the concn. of the soln. 2.5-3.5% at the end of the titration, and titrate with 0.1 *N* NaOH soln. (2) Add to the soln. (10 cc. of the approx. 0.2 *N* soln.) 10 cc. of 10% Na citrate soln., sat. with NaCl, Na_2SO_4, $NaNO_3$, KCl or add 5-15 cc. of 40% $Sr(NO_3)_2$ soln. and titrate with 0.1 *N* NaOH soln. in the presence of phenolphthalein. (3) To 10 cc. of 10% Na citrate soln. add concd. $CaCl_2$ soln. in an amt. contg. at least 1 g. of the solid salt (excess is not harmful). Make the mixt. neutral to phenol red, add the soln. under investigation and titrate with 0.1 *N* NaOH soln. Results of the analyses agreed well with the known contents of Al. W. R. H.

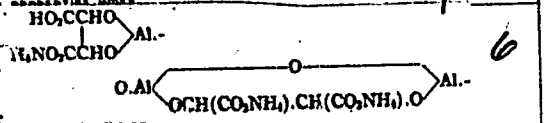


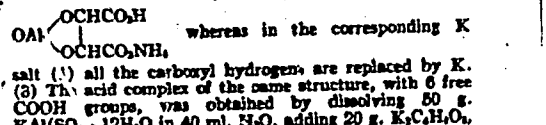
A rapid method for determining aluminum in the electrolyte of chromate baths. A. V. Pavlinova. *Arts Univ. Voronegiensis* (U. S. S. R.) 11, No. 2, 15–17(1939); *Khim. Referat. Zhur.* 1940, No. 2, 65.—In the proposed method Al is detd. volumetrically by means of $CaCl_2$ and tartrates or citrates. Dil. the electrolyte to 100 times its vol. and det. in one portion total acid by titrating with 0.1 *N* NaOH in the presence of phenolphthalein and an excess of tartrate. Titrate the soln. to a slightly pink color, add 35–40% $CaCl_2.6H_2O$ soln. in such an amt. as to make the concn. of $CaCl_2.6H_2O$ in the titrated liquid approx. 3% and back-titrate with 0.1 *N* NaOH. Titrate the acid in the 2nd portion of the soln. in the presence of oxalate and phenol red and det. the Al content from the difference. The amt. of Al is equal to the no. of cc. of the 0.1 *N* base multiplied by 0.0009. Citrate can be used instead of tartrate for the detns. With citrate, the amt. of Al is % of the no. of cc. of the 0.1 *N* base multiplied by 0.0009. For more accurate detns, remove Fe^{+++} from the soln (Cr^{+++} and CrO_4^{--} do not interfere in dil. solns.). To 10 cc. of the electrolyte contg. approx. 16% of CrO_3 add 25 cc. of 2 *N* NaOH, dil. with water to twice the vol., heat to boiling, transfer the soln. with the ppt. to a 100-cc. measuring flask, cool and bring the vol. of the soln. to the 100-cc. mark. Filter a part of the liquid, transfer a known vol. of the filtrate to another measuring flask, add 3–5 cc. of 2 *N* HCl for every 10 cc. of the filtrate and bring the vol. to the 100-cc. mark. Titrate an aliquot part of the soln. as previously. During the titration with tartrate add $CaCl_2$ after neutralization and back-titrate. With citrate the addn. of salts is not necessary. W. R. H.

PAVLINOVA, A. V.

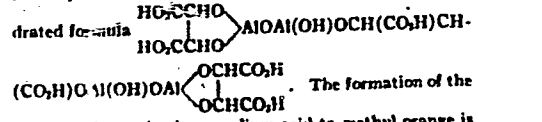
1ST AND 2ND ORDERS — PROCESSES AND — 3RD AND 4TH ORDERS

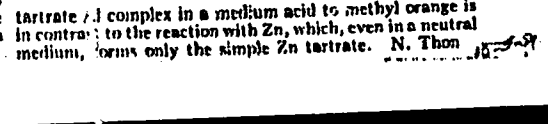
Tartaric aluminum compounds. A. V. Pavlinova (Voronezh State Univ.). *J. Gen. Chem.* (U.S.S.R.) 17, 3-10 (1947) (in Russian).—(1) The K compd. was prepd. by dissolving 100 g. $KAl(SO_4)_2.12H_2O$ in 80 ml. warm water, adding 40 g. $K_2C_4H_4O_6.\frac{1}{2}H_2O$ and about 25 g. KOH until the soln. was slightly alk. to phenolphthalein at boiling, and adding gradually water to dissolve the ppt. forming on addn. of the KOH. The soln. was evapd. until a crystal film appeared, cooled, decanted from the K_2SO_4 crystals, and ppt'd. with an equal vol. of alc. The 1st ppt. is K_2SO_4; on further addn. of alc., the complex is ppt'd. in white oily flakes. Filtration is slow owing to viscosity of the soln.; the ppt. must not be dried on paper, from which it is hard to sep. nor should it be washed with water, which may cause hydrolysis. Results of progressive dehydration at 70, 100, and 130° demonstrated the absence of complex-bound H_2O; no SO_4^{--} is present in the complex. The complex contained Al 12.47 ± 0.16%, K 28.53 ± 0.08%; ignition loss was 40.81 ± 0.48%. Of 9 formulas for the complex proposed in the literature, only $(K_2C_4H_2O_6)_2Al_2O_3$ (with Al 12.90, K 28.31, loss 41.27) fits the analysis. (2) To prep. the NH_4 salt, 50 g. $KAl(SO_4)_2.12H_2O$ dissolved in 100 ml. warm water, 14.0 g. $C_4H_6O_6$ was added, and the soln. was treated with about 60 ml. cncd. NH_4OH until slightly alk. at boiling; after cooling, it was ppt'd. with an equal vol. of alc.; yield 13 g. Al 16.39 ± 0.05%, NH_4 11.15 ± 0.06%, ignition loss 69.20 ± 0.15%. This is consistent with the presence of only 4NH_4 in the mol. and with the formula





whereas in the corresponding K salt (1) all the carboxyl hydrogens are replaced by K. (3) The acid complex of the same structure, with 6 free COOH groups, was obtained by dissolving 50 g. $KAl(SO_4)_2.12H_2O$ in 40 ml. H_2O, adding 20 g. $K_2C_4H_4O_6$, dissolving the ppt. formed with more H_2O and pptg. with an equal vol. of alc. The dry ppt. contained H_2O 9.63, K_2SO_4 57.16; the complex gave Al 17.55 ± 0.06, K 1.68 ± 0.03, ignition loss 67.38 ± 0.12. The low amt. of K found is obviously an admixt. corresponding to 8.08% $KHC_4H_5O_6$; presence of 6 free COOH was demonstrated directly by titration with 0.1 *N* KOH with phenolphthalein in the presence of NaCl. The analysis confirms the hydrated formula





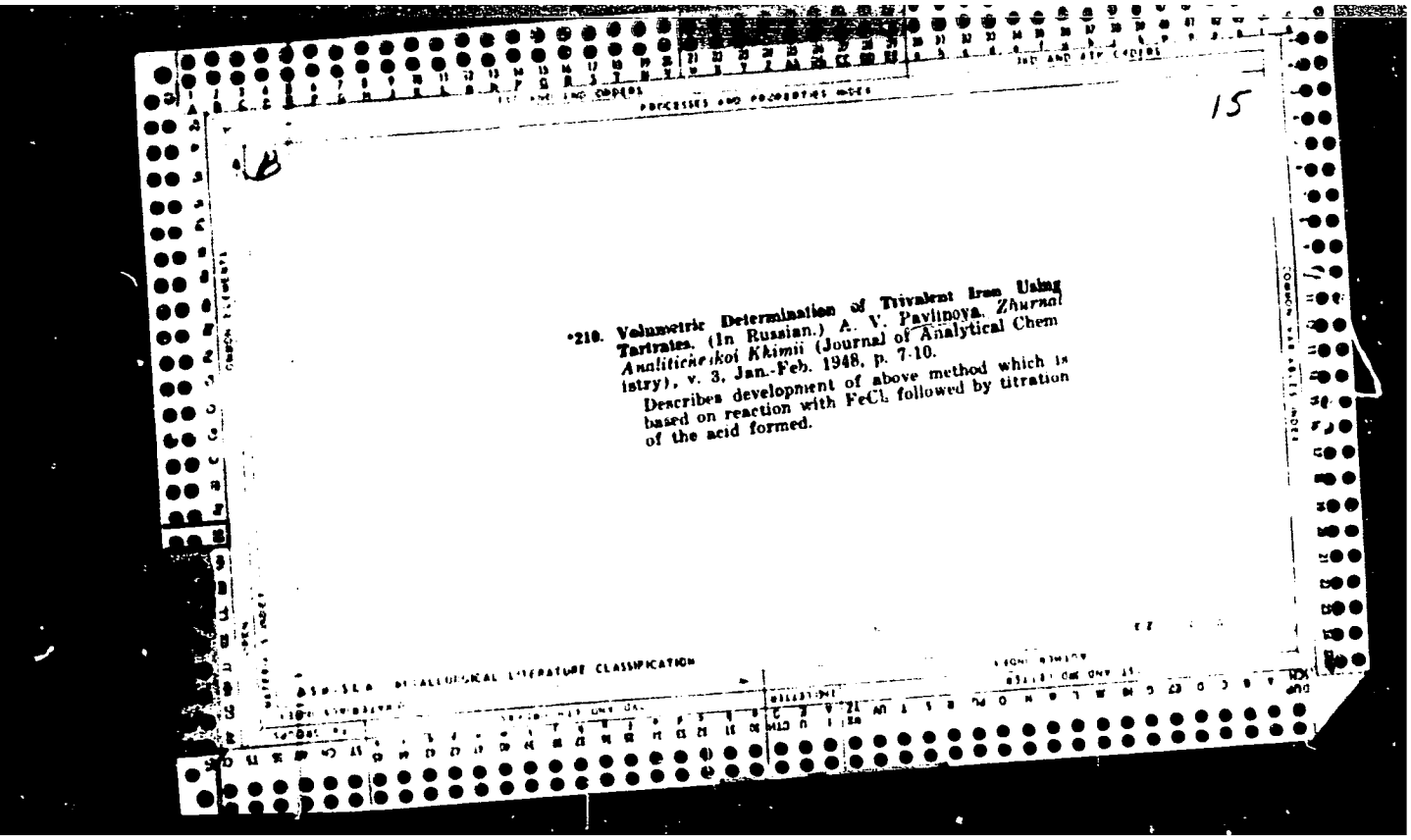
The formation of the tartrate Al complex in a medium acid to methyl orange is in contrast to the reaction with Zn, which, even in a neutral medium, forms only the simple Zn tartrate. N. Thon

PAVLINOVA, A. V.

Chair Analytical Chem., Chernovitskiy State Univ., -c1949-.

"On the Tartrate Aluminum Compounds," Zhur. Obshch. Khim., 17, No. 1, 1947;

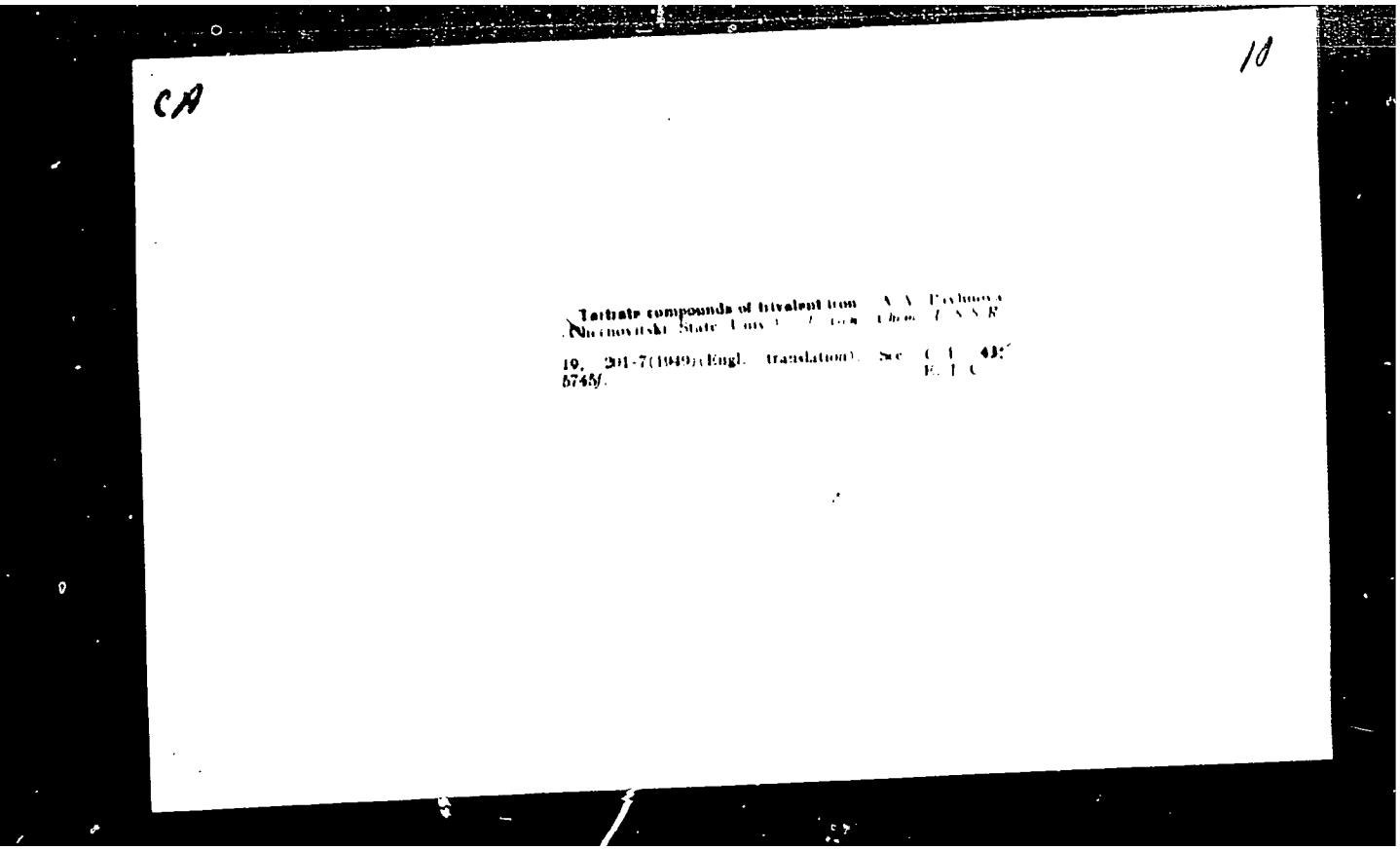
"Tartrate Compounds of Trivalent Iron," ibid., 19, No. 2, 1949.



15

*210. Volumetric Determination of Trivalent Iron Using Tartrates. (In Russian.) A. V. Pavlinova. Zhurnal Analiticheskoi Khimii (Journal of Analytical Chemistry), v. 3, Jan.-Feb. 1948, p. 7-10.

Describes development of above method which is based on reaction with FeCl$_3$ followed by titration of the acid formed.

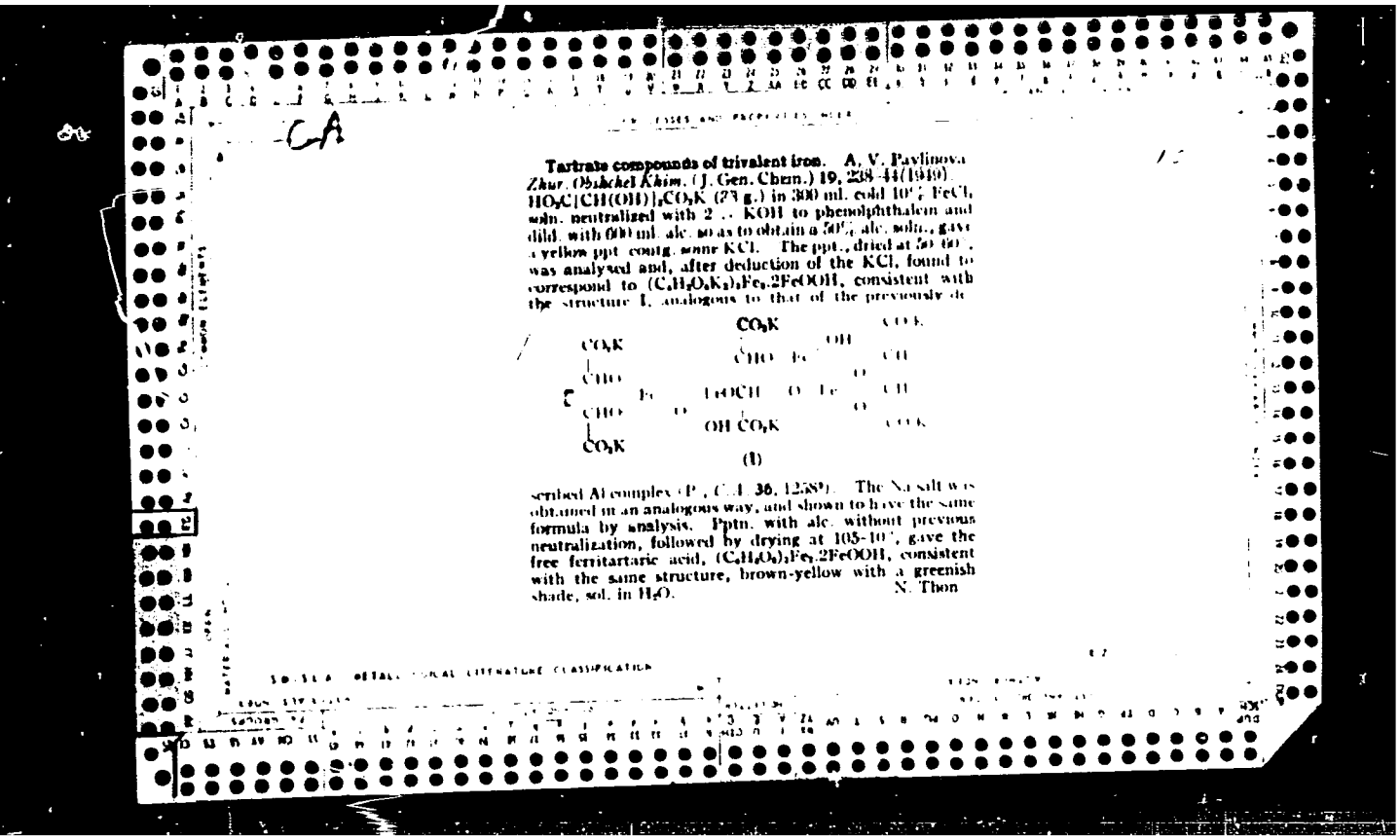


CA

10

Tartrate compounds of trivalent iron. A. V. Pavlova
Gorkovskii State Univ. [illegible] Chem., USSR

19, 201-7(1949)(Engl. translation). See C. A. 43:
5745f.



CA

Tartrate compounds of trivalent iron. A. V. Pavlinova *Zhur. Obshchel Khim.* (J. Gen. Chem.) **19**, 238-44(1949). $HO_2C[CH(OH)]_2CO_2K$ (23 g.) in 300 ml. cold 10% $FeCl_3$ soln. neutralized with 2 .. KOH to phenolphthalein and dild. with 600 ml. alc. so as to obtain a 50% alc. soln., gave a yellow ppt. contg. some KCl. The ppt., dried at 50-60°, was analysed and, after deduction of the KCl, found to correspond to $(C_4H_3O_6K_3)_2Fe_2.2FeOOH$, consistent with the structure I, analogous to that of the previously de-

(I)

scribed Al complex (P., C.A. **36**, 1258⁹). The Na salt was obtained in an analogous way, and shown to have the same formula by analysis. Pptn. with alc. without previous neutralization, followed by drying at 105-10°, gave the free ferritartaric acid, $(C_4H_4O_6)_3Fe_2.2FeOOH$, consistent with the same structure, brown-yellow with a greenish shade, sol. in H_2O.

N. Thon

PAVLINOVA, A. V.

3

USSR

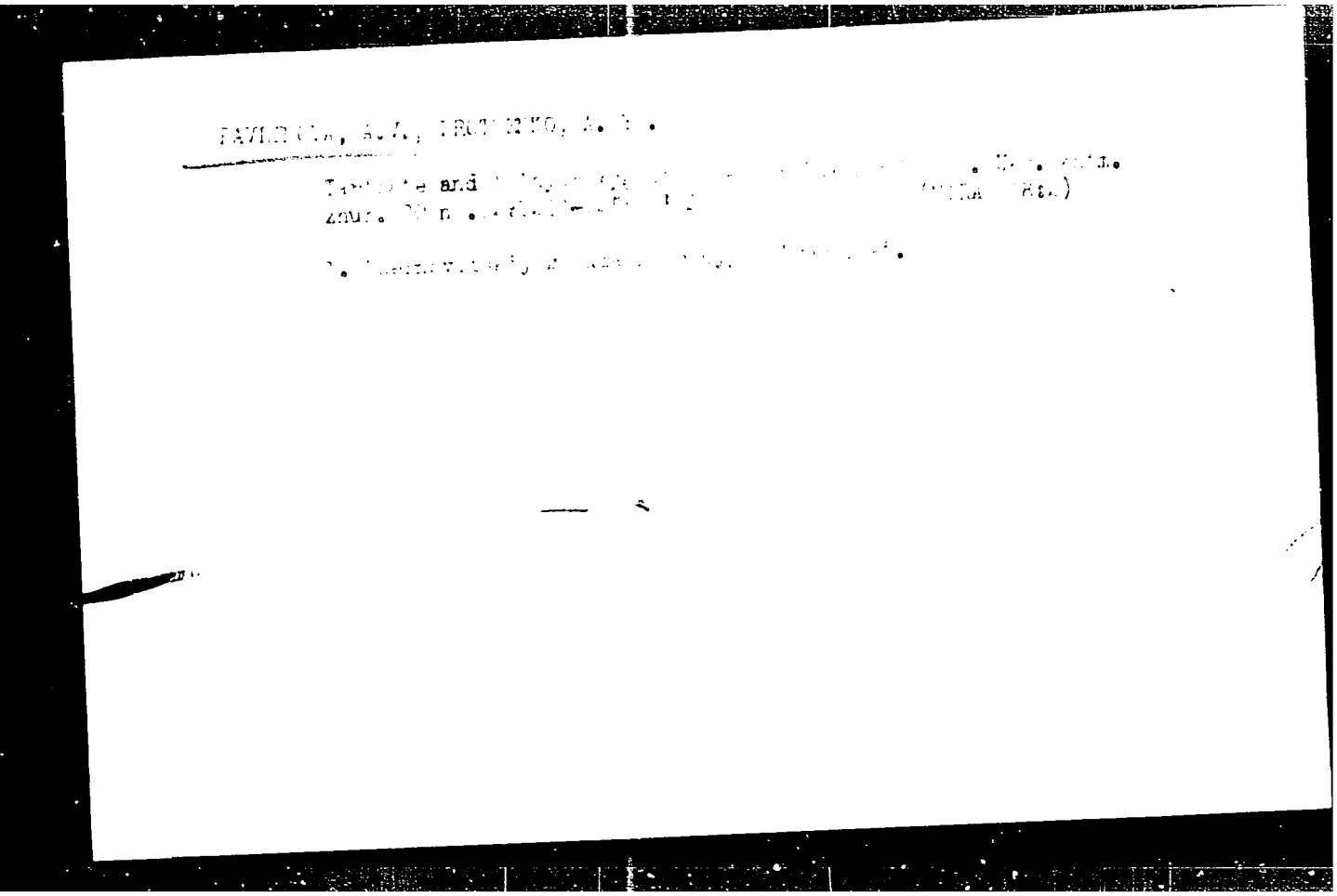
Total determination of metals with the aid of tartrates. A. V. Pavlinova and N. N. Sirotkova. *Trudy Komissii Anal. Khim., Otd. Nauk S.S.S.R., Inst. Khim. Nauk* 3, 230–38 (1951).—The method is based on titration of the acid liberated when alkali metal tartrates are added to certain cations. Expts. on Al-Zn, Al-Pb, Pb-Zn, and Al-Fe solns. showed that known amts. of these ions liberated the same amt. of acid whether the ions were alone or in binary mixts. The sum of the 2 metals can be detd. by this method and one metal detd. by another method. Al-Fe mixts. were studied in detail. In 2 flasks were placed identical samples prepd. from 0.1*N* $KAl(SO_4)_2$ and $FeNH_4(SO_4)_2$ solns., e.g. 25 ml. of each. In the first sample free acid was detd. with the use of NaF. To the second sample were added 15 ml. 10% K tartrate and 2 drops phenolphthalein. This soln. was titrated in the cold with 0.1*N* KOH to a weak rose color. Then 4 ml. 40% $CaCl_2$ was added and 0.1*N* KOH was added dropwise until a weak rose color. Free acid was subtracted from total acid and the difference was calcd. to Al_2O_3. In the data the known Fe in the sample was calcd. to its equiv. in Al_2O_3 and results were reported as g. Al_2O_3 found. With varying ratios of Al and Fe, total calcd. Al_2O_3 0.04–0.08 g., the relative error ranged from 0.8 to −0.9%. $CaCl_2$ was added to prevent hydrolysis. Excess $CaCl_2$ had no effect until its concn. in the soln. was 7%. Neither did Na_2SiO_3 or excess tartrate. When 0.01 g. NaH_2PO_4 was present with 0.08 g. Al_2O_3 the phosphate had no effect but an increase to 0.02 g. NaH_2PO_4 pptd. Ca.

Eurilla Mayerle

PAVLINOVA, A.V.; SHABANOVA, A.I.

Physicochemical investigation of the complex-forming reaction of beryllium with sodium tartrate and citrate. Ukr.khim.zhur. 31 no.2:132-136 '65. (MIRA 18:4)

1. Chernovitskiy gosudarstvennyy universitet.



PAVLINOVA, A.V.; KOROTUN, M.V.; TRENDOVATSKIY, P.I.; GONCHARIK, V.P.
SABUROVA, R.A.

Rapid method for the volumetric determination of potassium.
Ukr. khim. zhur. 29 no.8:857-858 '63. (MIRA 16:11)

1. Chernovitskiy gosudarstvennyy universitet.

KOROTUN, M.V.; PAVLINOVA, A.V.; PROTSENKO, A.Ye.; TSAPLENKOVA, P.S.; BODROVA, N.I.

Photoelectrocolorimetric determination of large amounts of potassium in solution. Izv.vys.ucheb.zav.; khim.i khim.tekh. 4 no.6:1037-1039 '61. (MIRA 15:3)

1. Chernovitskiy gosudarstvennyy universitet i Kalushskiy kaliynyy kombinat.

(Potassium--Analysis)

PAVLINOVA, A.V.; CHERKASOVA, N.M.

Complexing reaction of trivalent iron with mannitol. Zhur.anal. khim. 16 no.6:733-735 N-D '61. (MIRA 14:12)
(Iron compounds)
(Mannitol)

PAVLINOVA, A.V.; KOROTUN, M.V.; PROTSENKO, A.Ye.

Some improvement in the microcrystalloscopic detection of potassium in the form of triple potassium, copper, and lead nitrite. Zhur.anal.khim. 15 no.1:124 J-F 60. (MIRA 13:5)

1. Chernovitsky State University.
(Potassium--Analysis) (Potassium nitrite)

PAVLINOVA, A.V.; PROTSENKO, A.Ye.

Physicochemical study of the interaction between zinc salts with citrates. Ukr. khim. zhur. 26 no.6:757-761 '60. (MIRA 14:1)

1. Chernovitskiy gosudarstvennyy universitet.
(Zinc salts) (Citrates)

PAVLINOVA, A.V.; SHNAREVICH, A.I.

Composition and stability of a citrate compound of manganese. Zhur. neorg. khim. 5 no. 12:2759-2763 D '60. (MIRA 13:12)
(Manganese compounds) (Citric acid)

S/073/60/026/004/016/018
B023/B064

AUTHORS: Pavlinova, A. V. and Protsenko, A. Ye.

TITLE: Volumetric Determination of Zinc and Cadmium When Present Jointly

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1960, Vol. 26, No. 4, pp. 519-522

TEXT: The authors aimed at finding a quicker method of determining zinc in the presence of cadmium. For this purpose, cadmium was bound as complex $CdCl_4$ or $CdBr_4$. The "citrate" method (Ref. 3) was applied to determine zinc volumetrically. The acid separated in the reaction was titrated and phthenol phthalein was used as indicator. It was experimentally found that thymol phthalein can be replaced by phenol phthalein. It is, however, necessary to increase the amount of $CaCl_2$ up to 3% of the volume of the titrated solution. The attached scheme shows the reactions thus occurring.

Card 1/4

Volumetric Determination of Zinc and Cadmium When Present Jointly

S/073/60/026/004/016/018/XX
B023/B064

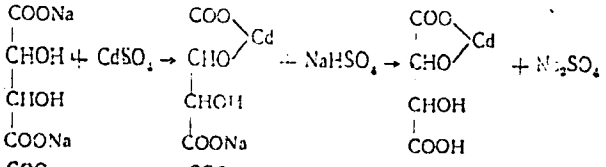
1. CH_2COONa / $C(OH)(COONa)(CH_2COONa)$ $+ ZnSO_4 \rightarrow$ $C(O-Zn-CH_2COO)(COONa)(CH_2COONa)$ $+ NaHSO_4 \rightarrow$ $C(O-Zn-CH_2COO)(COONa)(CH_2COOH)$ $+ Na_2SO_4$

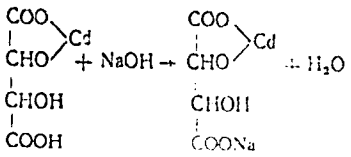
2. $C(O-Zn-CH_2COO)(COONa)(CH_2COOH)$ $+ NaOH \rightarrow$ $C(O-Zn-CH_2COO)(COONa)(CH_2COONa) + H_2O$

The following solutions were prepared: $ZnSO_4$ - 0.1896 moles, $CdSO_4$ - 0.1936 moles, NaOH - 0.0998-n, 10% sodium nitrate and a saturated $CaCl_2$ solution. The molarity of the zinc salt solution was determined by the citrate method and at the same time, by titrating with Trilon. The data obtained by the two methods are in agreement. The molarity of the cadmium solution was determined by the method described in Ref. 4, i.e., in the solution of cadmium sulfide whose titer was found by electrolysis. A

Card 2/4

calculation made on the basis of the instability constant of the $(CdCl_4)''$ complex showed that the $CaCl_2$ concentration in the solution should not be less than 30%. A number of titrations was carried out with equal zinc-salt- and citrate volumes and with different cadmium salt- and $CaCl_2$ volumes for reasons of comparison. The results of Table 1 show that cadmium is entirely bound at a sufficiently high ionic concentration of chlorine. A volumetric determination of zinc is thus possible in the presence of cadmium. Cadmium can be titrated with tartrates in the presence of KNO_3. The reactions proceed according to the attached scheme.

1. 

2. 

Card 3/4

Volumetric Determination of Zinc and Cadmium When Present Jointly

S/073/60/026/004/016/018/XX
B023/B064

Investigations confirmed that in the titration of zinc, instead of $CaCl_2$, also other salts, e.g., Na_2SO_4, NaCl, and KNO_3 (16-20%) may be added. Thus, it is possible to titrate the sum Zn + Cd. Since zinc is also titrated in an independent sample the amount of cadmium can be determined as the difference (Table 2). This method is fairly accurate. If apart from zinc and cadmium the solution also contains acid, it can be titrated in advance with methyl orange as indicator. The authors found that the solution in which the acid was determined, can also be used to determine Zn or Zn + Cd, since the slightly yellow color of methyl orange does not affect titration with phenol phthalein. There are 2 tables and 4 Soviet references.

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet
(Chernovtsy State University)

SUBMITTED: April 20, 1959

Card 4/4

5,5140,5.5130

AUTHORS: Pavlinova, A. V., Korotun, M. V., Protsenko, A. Ye.

TITLE: Some Improvements in the Microcrystalloscopic Detection of Potassium as Triple Potassium-Copper-Lead Nitrite

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 1, p 124 (USSR)

ABSTRACT: The use of a reagent containing 25 g lead acetate, 6.0 g cupric acetate, and 40 g sodium nitrite per 100 ml of water increases the sensitivity of this reaction for potassium. A drop of the test solution is evaporated to dryness on a glass plate, and a drop of the reagent solution is added. The appearance of the characteristic crystals can still be observed at a 0.002 M concentration of KCl. Detectable minimum, 0.9 γ ; limiting dilution, 1:10,300. There is 1 Soviet reference.

SUBMITTED: October 24, 1958

Card 1/1

5(2) SOV/75-14-3-18/29

AUTHORS: Pavlinova, A. V., Bernshteyn, B. I.

TITLE: Titrimetric Determination of Mobile Aluminum in Soils (Titrimetricheskoye opredeleniye podvizhnogo alyuminiya v pochvakh)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 3, pp 356-357 (USSR)

ABSTRACT: The method of A. V. Sokolov hitherto applied: titration of the sum of free acid and aluminum with lye, titration of the free acid alone after binding of aluminum with sodium fluoride and determination of the aluminum from the difference, had certain disadvantages. Basic salts could be formed which involve a greater consumption of lye, besides, the endpoint of the titration was difficult to recognize in the turbid solution. It is suggested to bind the aluminum with potassium tartrate in which connection the equivalent amount of acid is liberated, and can be titrated in clear solution with phenolphthaleine. A figure shows the influence exercised by alkali and alkaline-earth salts upon the analysis, a table gives the results of the analysis. There are 1 figure,

Card 1/2

SOV/75-14-3-18/29

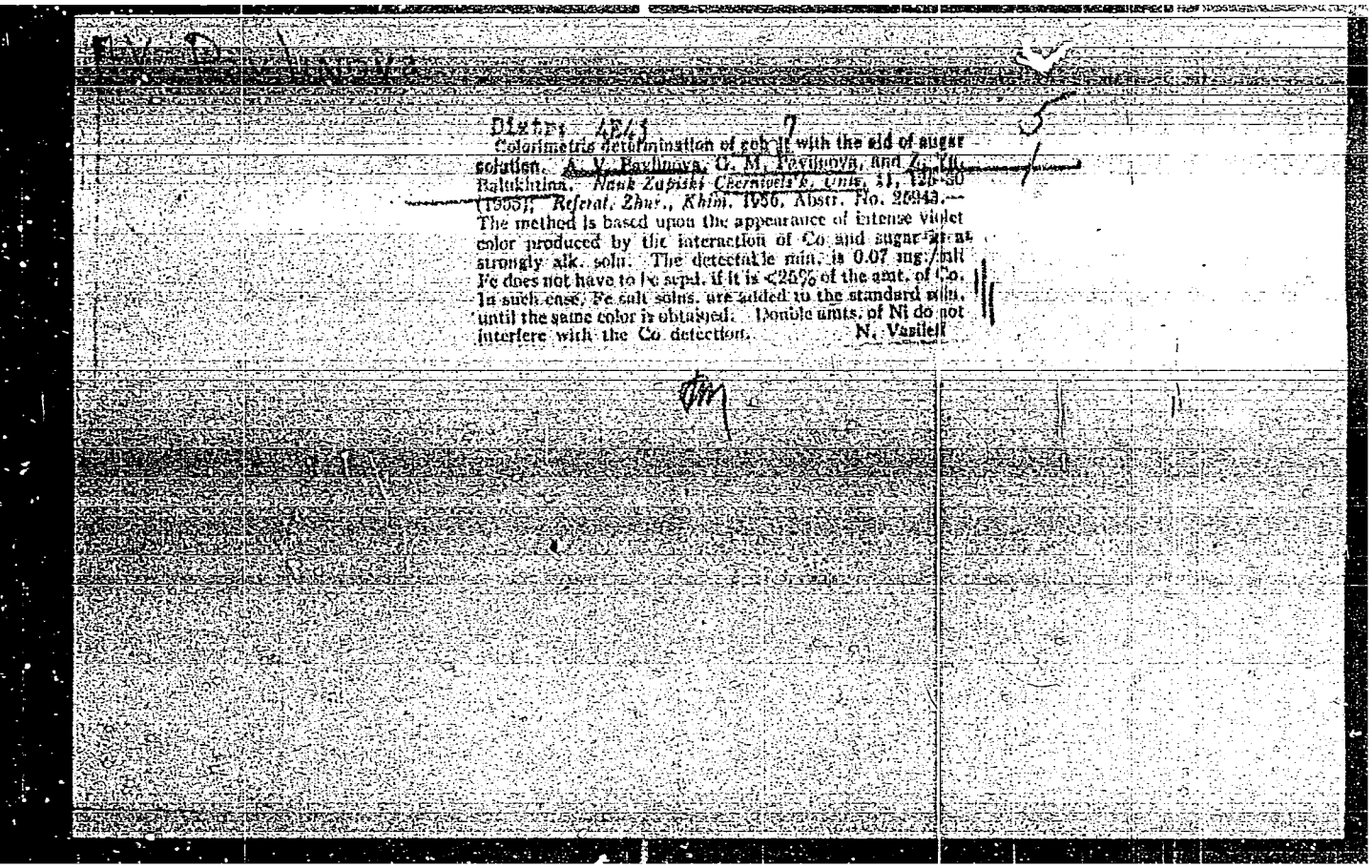
Titrimetric Determination of Mobile Aluminum in Soils

1 table, and 3 Soviet references.

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet
(Chernovtsy State University)

SUBMITTED: January 2, 1957

Card 2/2



Distr: 4E4j

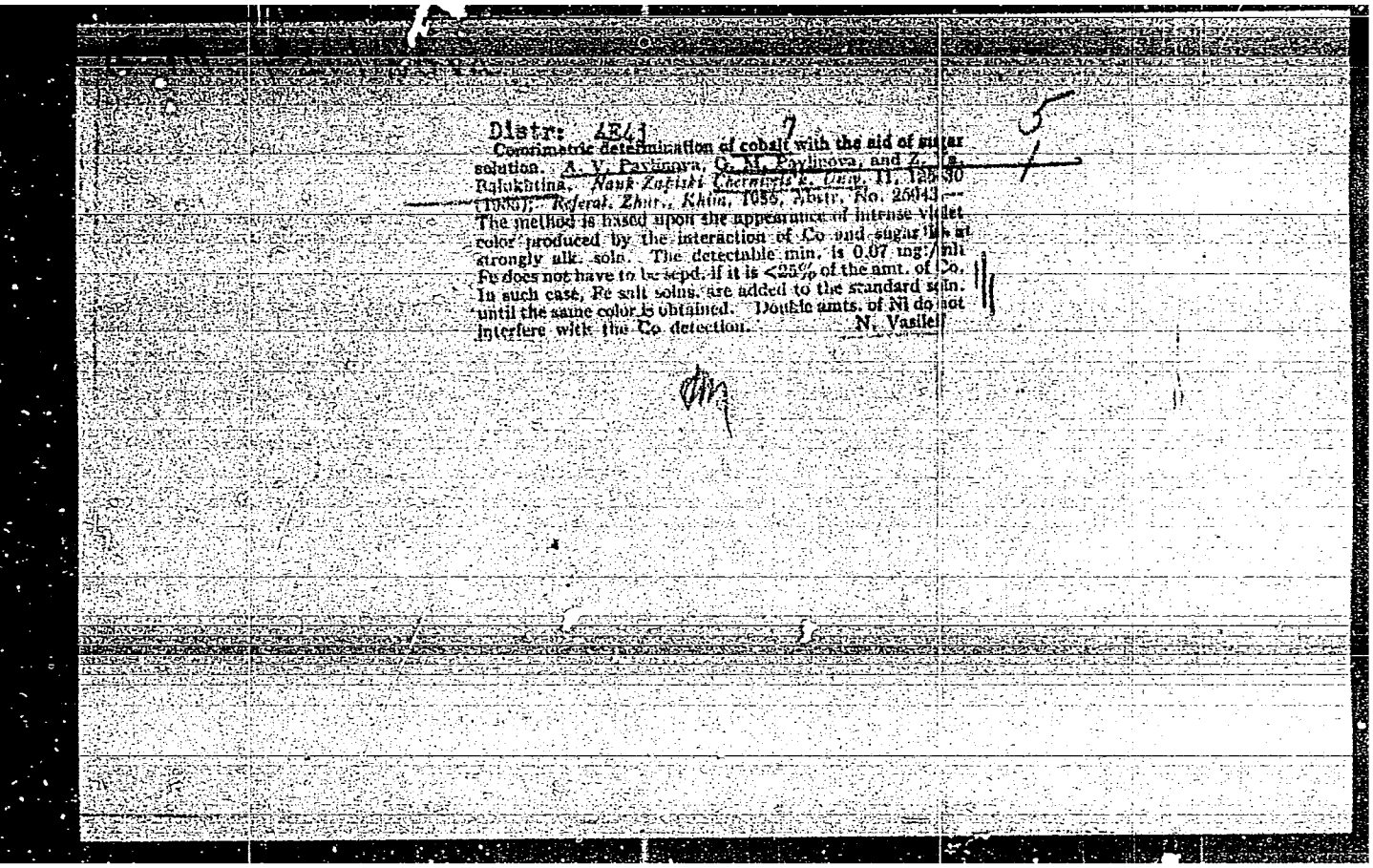
Colorimetric determination of cobalt with the aid of sugar solution. A. V. Pavlinova, O. M. Pavlinova, and Z. Ya. Balukhina. *Nauk Zapiski Chernivets'k. Univ.*, 11, 125-30 (1955); *Referat. Zhur., Khim.* 1956, Abstr. No. 26943.—The method is based upon the appearance of intense violet color produced by the interaction of Co and sugar in an strongly alk. soln. The detectable min. is 0.07 mg./ml. Fe does not have to be sepd. if it is <25% of the amt. of Co. In such case, Fe salt solns. are added to the standard soln. until the same color is obtained. Double amts. of Ni do not interfere with the Co detection. N. Vasiliu

PAVLINOVA, E.

A variety of food and public eating places.

p. 140 (VYZIVA LIDU) Vol. 12, no. 10, Oct. 1957,
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,
March 1958



Distr: 4E4J

Colorimetric determination of cobalt with the aid of sugar solution. A. V. Pavlinova, O. N. Pavlinova, and Z. Rakukhina. *Nauk. Zapiski Chernivets. Univ.* 11, 125-30 (1956); *Referat. Zhur., Khim.*, 1955, Abstr. No. 26043. The method is based upon the appearance of intense violet color produced by the interaction of Co and sugar in strongly alk. soln. The detectable min. is 0.07 mg./ml. Co. Fe does not have to be sepd. if it is <25% of the amt. of Co. In such case, Fe salt solns. are added to the standard soln. until the same color is obtained. Double amts. of Ni do not interfere with the Co detection. N. Vasile

PAVLINOVA, G.N.

Accelerated method for determining antimony in the presence of arsenic. Izv.Sib.otd.AN SSSR no.6:53-58 '60. (MIRA 13:9)

1. Novosibirskiy institut inzhenerov zheleznodorozhnogo transporta.
(Antimony--Analysis) (Arsenic--Analysis)

PAVLINOVA, G. N.

PA 29/49T16

USSR/Chemistry - Acid, Determination 1949
Chemistry - Antimony Compound

"Determination of Free Acid in Solutions of Salts of Antimony and Bismuth," G. N. Pavlinova, Chair of Chernovitskiy State U, 3 pp

"Zhur Analit Khimii" Vol IV, No 1, p 46-8, 1949

Results of tests show possibility of determining free acid in solution of salts of bismuth and trivalent antimony. Method is based on settling of analyzed solution with excess of potassium ferrocyanide, filtering the residue, and titrating the filtrate with alkali in presence of phenolphthalein. Three tables show results of titrations. Submitted 2 Jan 48.

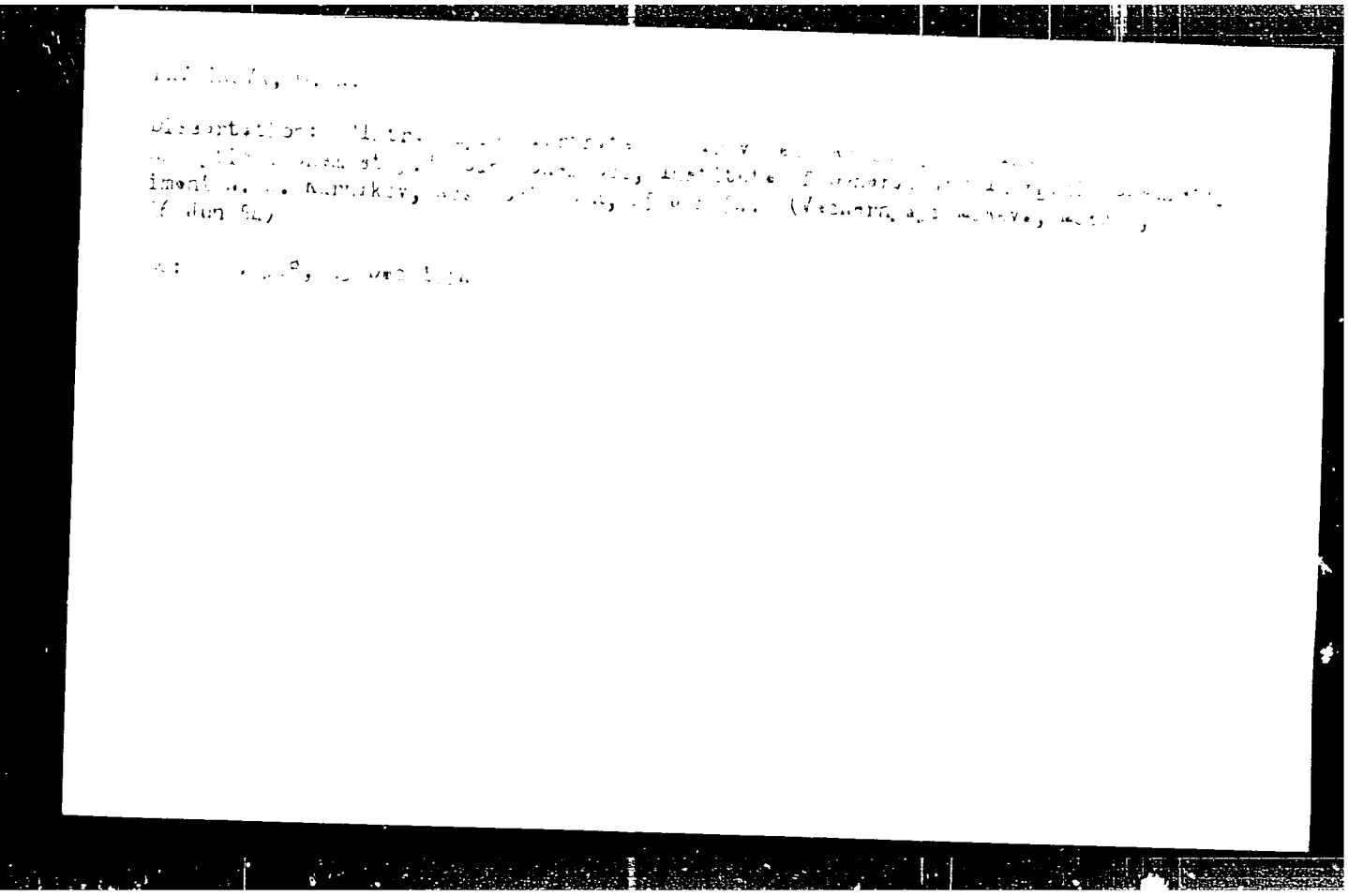
29/49T16

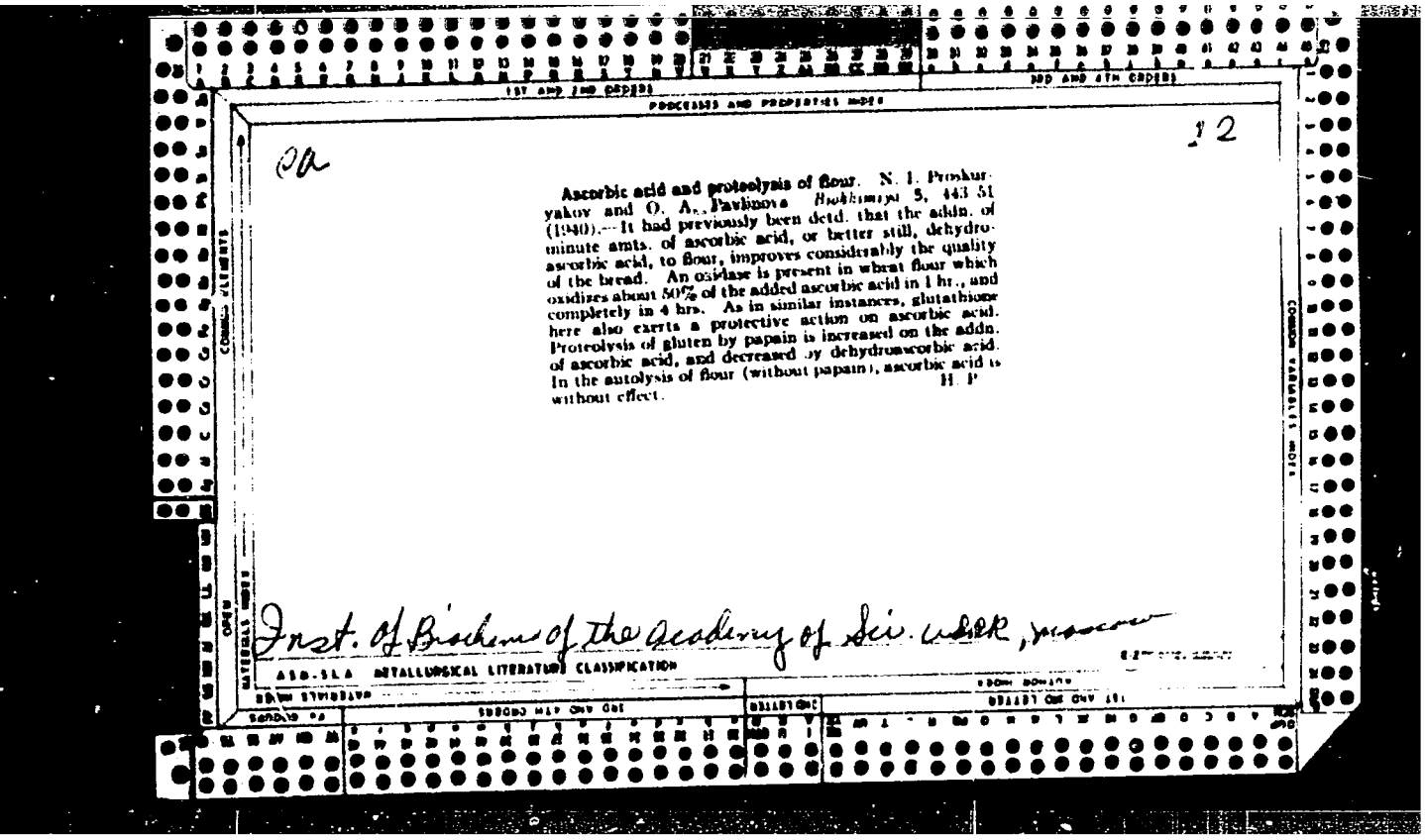
PAVLINOVA, G.N.

Composition of intracomplex tartrates of trivalent antimony. Uch. zap. IAk. un. no.1:64-75 '57. (MIRA 11:3)
(Tartaric acid) (Antimony compounds)

PAVLINOVA, G.N.

Potentiometric analysis of tartrate complexes of trivalent antimony.
Uch. zap. IAk. un. no.1:76-82 '57. (MIRA 11:3)
(Antimony compounds) (Tartaric acid) (Electrochemical analysis)

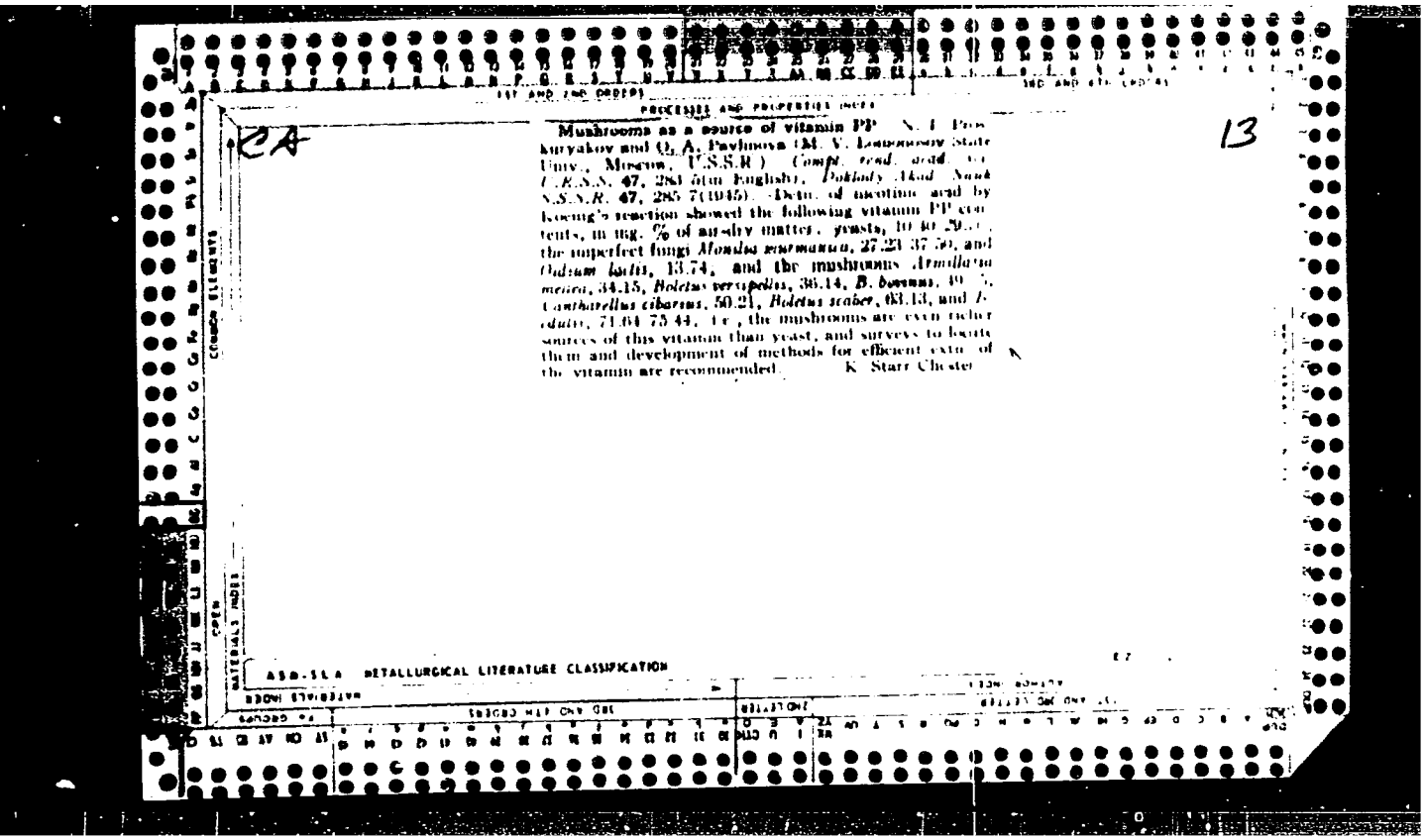




12

Ascorbic acid and proteolysis of flour. N. I. Proskuryakov and O. A. Pavlinova *Biokhimiya* 5, 443-51 (1940).—It had previously been detd. that the addn. of minute amts. of ascorbic acid, or better still, dehydroascorbic acid, to flour, improves considerably the quality of the bread. An oxidase is present in wheat flour which oxidizes about 80% of the added ascorbic acid in 1 hr., and completely in 4 hrs. As in similar instances, glutathione here also exerts a protective action on ascorbic acid. Proteolysis of gluten by papain is increased on the addn. of ascorbic acid, and decreased by dehydroascorbic acid. In the autolysis of flour (without papain), ascorbic acid is without effect. H. P

Inst. of Biochem. of the Academy of Sci. USSR, Moscow

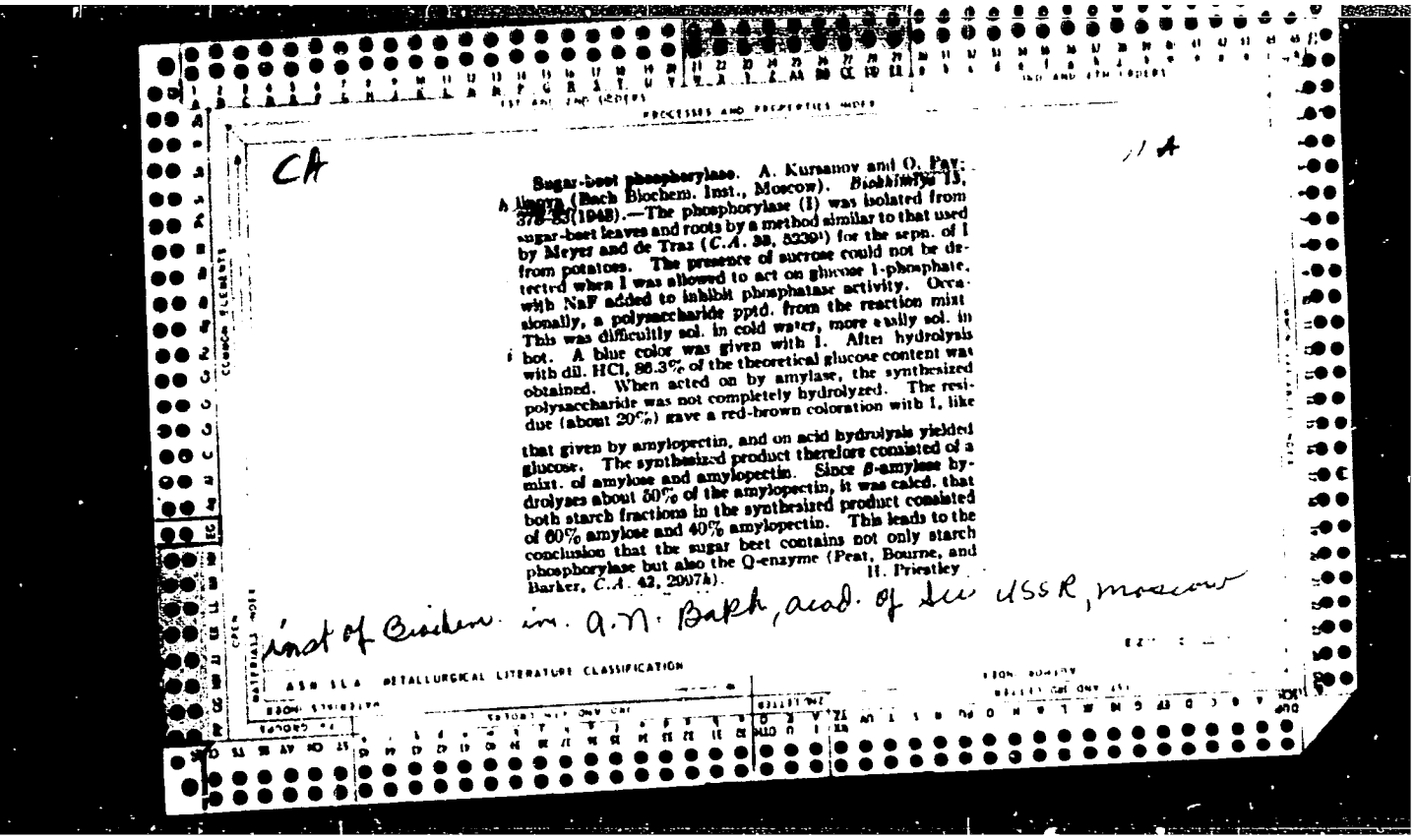


CA

13

Mushrooms as a source of vitamin PP. N. I. Prokuryakov and O. A. Pavlinova (M. V. Lomonosov State Univ., Moscow, U.S.S.R.). *Compt. rend. acad. sci. U.R.S.S.* **47**, 283 (in English); *Doklady Akad. Nauk S.S.S.R.* **47**, 285-7 (1945). Detn. of nicotinic acid by Koenig's reaction showed the following vitamin PP contents, in mg. % of air-dry matter: yeasts, 10.40-29.; the imperfect fungi *Mondia zermanica*, 27.23-37.50, and *Oidium lactis*, 13.74, and the mushrooms *Armillaria mellea*, 34.15, *Boletus versipellis*, 36.14, *B. bovinus*, 40.; *Cantharellus cibarius*, 50.21, *Boletus scaber*, 63.13, and *B. edulis*, 71.04-75.44. I.e., the mushrooms are even richer sources of this vitamin than yeast, and surveys to locate them and development of methods for efficient extn. of the vitamin are recommended. K. Starr Chester

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

14

Sugar-beet phosphorylase. A. Kursanov and O. Pavlinova (Bach Biochem. Inst., Moscow). *Biokhimiya* 13, 378-83(1948).—The phosphorylase (I) was isolated from sugar-beet leaves and roots by a method similar to that used by Meyer and de Trax (*C.A.* 28, 8239[1]) for the separation from potatoes. The presence of sucrose could not be detected when I was allowed to act on glucose 1-phosphate, with NaF added to inhibit phosphatase activity. Occasionally, a polysaccharide ppt'd. from the reaction mixt. This was difficultly sol. in cold water, more easily sol. in hot. A blue color was given with I. After hydrolysis with dil. HCl, 88.3% of the theoretical glucose content was obtained. When acted on by amylase, the synthesized polysaccharide was not completely hydrolyzed. The residue (about 20%) gave a red-brown coloration with I, like that given by amylopectin, and on acid hydrolysis yielded glucose. The synthesized product therefore consisted of a mixt. of amylose and amylopectin. Since β-amylase hydrolyzes about 50% of the amylopectin, it was calcd. that both starch fractions in the synthesized product consisted of 60% amylose and 40% amylopectin. This leads to the conclusion that the sugar beet contains not only starch phosphorylase but also the Q-enzyme (Peat, Bourne, and Barker, *C.A.* 42, 2907h). H. Priestley

Inst of Biochem. im. A.N. Bakh, Acad. of Sci USSR, Moscow

ASM S L A METALLURGICAL LITERATURE CLASSIFICATION

CA

10

The nearest precursors of sucrose in plants. A. L. Kursanov and O. A. Pavlinova (Bach Biochem. Inst., Moscow). *Biokhimiya* 15, 82-7(1950).—If the P esters of sugars are the direct precursors of sucrose in plants, as is claimed by many, then the synthesis of sucrose should proceed faster with phosphorylated sugars rather than with unphosphorylated, simple sugars. Vacuum infiltration expts., however, show that the synthesis of sucrose in sugar-beet leaves is much slower with fructose diphosphate and glucose-1-phosphate than with the simple, nonphosphorylated sugars. Hence, phosphorylated sugars are not regarded as the direct precursors of sucrose. Vacuum infiltration with maltose does lead to a more rapid synthesis of sucrose than the infiltration with a mixt. of glucose and fructose. A similar more rapid synthesis is obtained by the infiltration of the polysaccharide (of 6 glucose units) obtained from starch with α-amylase (Ortenblad and Myrback, *C.A.* 35, 4625[4]). The nearest precursors of sucrose in plants are compds. with 1,4-α-glucoside linkages (maltose, dextrins, starch).

H. Priestley

CA

Oxygen consumption in the synthesis of sucrose by plants. A. L. Kursanov and O. A. Pavlinova. (Bach Biochem. Inst., Moscow). *Biokhimiya* 15, 178-85(1950)

In order to confirm the hypothesis concerning the synthesis of sucrose from polysaccharides with 1,4-α-glucoside bonds (*C.A.* 44, 5439c), comparative detns. were made of the amt. of O consumed by plants for the synthesis of 1 mg. of sucrose from a mixt. of glucose and fructose and from a mixt. of maltose (as the simplest representative with 1,4-α-glucoside linkages) and fructose. The respiration of wheat seedlings was detd. in a Warburg app., the side arm of which contained the sugar soln. The respiration of the wheat seedlings increased sharply immediately after the addn. of the sugar soln., reaching a max. in 1-1.5 hrs. An addnl. 27 μl. O was absorbed by the seedlings in the synthesis of 1 mg. sucrose from glucose and fructose. The synthesis of sucrose from a mixt. of maltose and fructose proceeded in the wheat seedlings as rapidly as from monosaccharides. But the rise in respiration was only 53% of that caused by simple sugars. From the energy standpoint, the synthesis of sucrose from maltose and fructose was more favorable. This is a verification of the view that in higher plants the nearest precursors of sucrose are polymers of glucose with 1,4-α-glucoside linkages (starch, dextrins, maltose). H. Priestley

PAVLIHOVA, O. A.

Beets and Boot Sugar

Site of synthesis of saccharose in beet plants. Biokhimiia 17 no. 4, 1952.

p. 446

Inst. of Biochem. im. A. N. Bakh, Ac of Sci. USSR, Moscow

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

CA

11-D

Phosphoric esters of sugar beet. O. A. Pavlinova (A. N. Bakh Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 83, 597-600(1952).—The org. P compds. were isolated from the sugar beet under refrigeration by Embeit's method (*Manometric Methods*, 1951). Leaves of sugar beet are richer in inorg. P than the roots; the org. P compds. display similar distribution, with the leaves about 50% or more, richer. Vegetating roots are about 20% richer in P compds. than the stored roots. The following distribution is found, resp., in leaves, vegetating roots and stored roots: glucose 6-phosphate 1.65, 1.16, 1.27 mg. per 10 g.; glucose 1-phosphate 0.18, 0.13, 0.12; fructose 6-phosphate 0.31, 0.41, 0.39; fructose 1,6-diphosphate 0.62, 0.29, 0.30; 3-phosphoglyceric acid 1.04, 0.49, 0.45; phytin 1.60, 1.03, 0.96. These are substances that are extractable from the tissues with CCl_3CO_2H and considerable amts. of unknown P compds. are present; these remain in soln. after ppth. of hexose monophosphates as Ba salts with EtOH. The III fraction of P compds. comprises about 27% of total org. P in the leaves and nearly 50% in the roots. These substances are not homogeneous, some being more readily hydrolyzed by acids or alkalies than others, but the main bulk belongs to relatively difficultly hydrolyzable substances from which P can be isolated only after ashing. Possibly they may be pentose phosphates. G. M. K.

PAVLINOVA, O. A.

Beets and Beet Sugar

Role of phosphorylated sugars in the respiration of beets. Dokl. AN SSSR 85 No. 4, 1952.

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

PAVLINOVA, O. A.

Application of the isotopic method of study to the synthesis of sucrose in the sugar beet plant. O. A. Pavlinova (A. N. Bakh Inst. Biochem., Acad. Sci. U.S.S.R., Moscow). *Biokhimiya* 19, 304-7(1954).—A quant. method is presented for the detn. of the synthesis of sucrose in the tissues of the sugar beet plant with the aid of C^{14}-labeled monosaccharides. The results fully confirmed data obtained by other chem. studies. Sugar beet roots synthesized sucrose from introduced monosaccharides but in quantities so small that its presence could be demonstrated only by deg. the degree of developed radioactivity. As the growth of the plant progresses and the storage of sucrose in the roots reaches a high level, the sugar-synthesizing properties of the roots are gradually reduced to nil. Practically no sugar synthesis takes place in the top, center, and peripheral tissues of the root. Monosaccharides introduced into the roots seem to be rapidly spent in the formation of cellulose, pectins, in the process of respiration and other physiol. processes, none of which appears to be related to the synthesis of sucrose.

P. S. Levine

Inst. of Biochem. in A. N. Bakh, Acad. of Sci., USSR, Moscow

PAVLINOVA O.A.

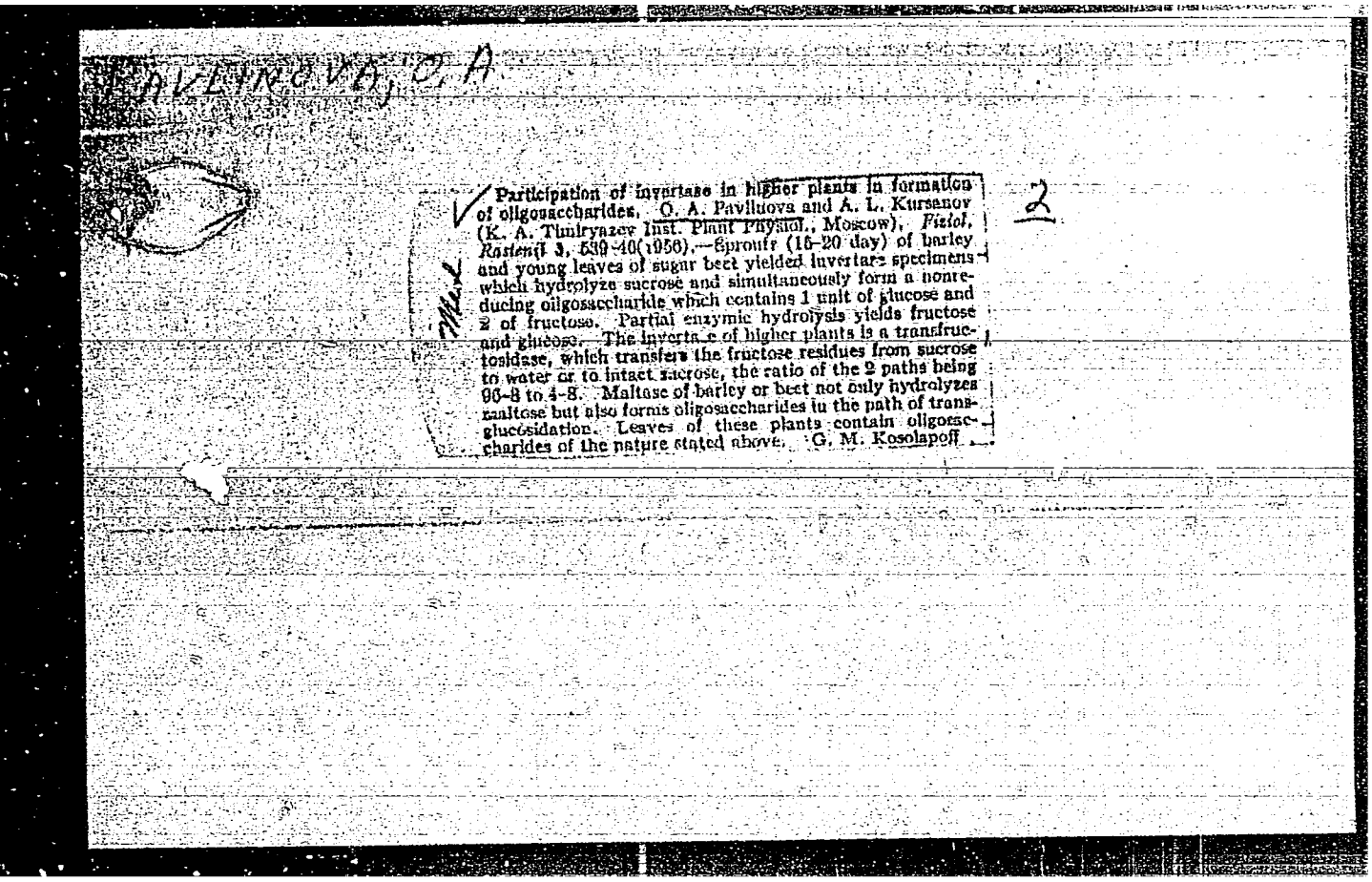
MD

Transformations of sugars in the conducting structures of the sugar beet. O. A. Pavlinova (K. A. Timiryazev Inst. Plant Physiol. Acad. Sci. U.S.S.R., Moscow). *Fiziol. Rastenii Akad. Nauk S.S.S.R.* 2, 373-84 (1955).—Cut leaf stems of the plant for a study of carbohydrate transformations. It was shown that glucose and fructose can be transformed into sucrose during the transport process in the conducting layers. This is observed within 10–15 min. This takes place even with the use of only one of the monosaccharides in the substrate soln. Hydrolysis of the resulting sucrose shows the same C^{14} content in both components. Free glucose was nonradioactive. Thus in sucrose synthesis there probably are included the bound monosaccharides, and the synthesis proper occurs by mutual transformation of the monosaccharides. Phosphohexoisomerase activity thus may be admitted in the conducting layers. Uridine diphosphateglucose, contg. unlabeled glucose, introduced with C^{14}-labeled fructose accelerates sucrose synthesis in the conducting layers and in the leaves but does not alter the ratio of radioactive glucose and fructose in the labeled sucrose. Thus, the glucose of the uridine deriv. is not utilized in the synthesis.

G. M. Kosolapoff

JAMES, W.O.; ZAPROMETOV, M.N. [translator]; PAVLINOVA, O.A. [translator]; NICHIPOROVICH, A.A., professor, redaktor; GRIBOVA, M.P., tekhnicheskiy redaktor

[Plant respiration. Translated from the English] Dykhanie rastenii. Perevod s angliiskogo M.N.Zaprometova i O.A.Pavlinovoi. Pod red. i s predisl. A.A.Nichiporovicha. Moskva, Izd-vo inostrannoi lit-ry, 1956. 439 p. (MLRA 10:1)
(Plants--Respiration)



Participation of invertase in higher plants in formation of oligosaccharides. O. A. Pavlinova and A. L. Kursanov (K. A. Timiryazev Inst. Plant Physiol., Moscow), *Fiziol. Rastenii* 3, 539-40(1956).—Sprouts (15–20 day) of barley and young leaves of sugar beet yielded invertase specimens which hydrolyze sucrose and simultaneously form a nonreducing oligosaccharide which contains 1 unit of glucose and 2 of fructose. Partial enzymic hydrolysis yields fructose and glucose. The invertase of higher plants is a transfructosidase, which transfers the fructose residues from sucrose to water or to intact sucrose, the ratio of the 2 paths being 96–8 to 4–8. Maltose of barley or beet not only hydrolyzes maltose but also forms oligosaccharides in the path of transglucosidation. Leaves of these plants contain oligosaccharides of the nature stated above. G. M. Kosolapoff

USSR/Chemistry - Chromatography

T-3

Author : [illegible]

Inst : [illegible]

Title : [illegible]

Orig Pub : [illegible]

Abstract : [illegible] determination of their content. [illegible] of methrone was dissolved in 100 ml of [illegible] solution of [illegible] ml of the reagent was added to [illegible] of the [illegible] solution of the individual sugar separated by the chromatogram on paper [illegible] from the chromatogram containing [illegible] of the substance. After heating for 15 minutes over a boiling water bath the

Card 1/2

[illegible]. The correction [illegible] disease. The method [illegible] carried out in the In[illegible] Academy of Sciences [illegible] possible.

PAVLINOVA, O. A.

KURSANOV, A.L.; CHAYLAKHYAN, M.Kh.; PAVLINOVA, O.A.; TURKINA, M.V.; BROVCHENKO, M.I.

Translocation of sugars in grafted plants [with summary in English]. Fiziol. rast. 5 no.1:3-15 Ja-F '58. (MIRA 11:1)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva AN SSSR, Moskva. (Plants, Motion of fluids in) (Grafting) (Sugars)

KURSANOV, A.L.; PAVLINOVA, O.A.; AFANAS'YEVA, T.P.

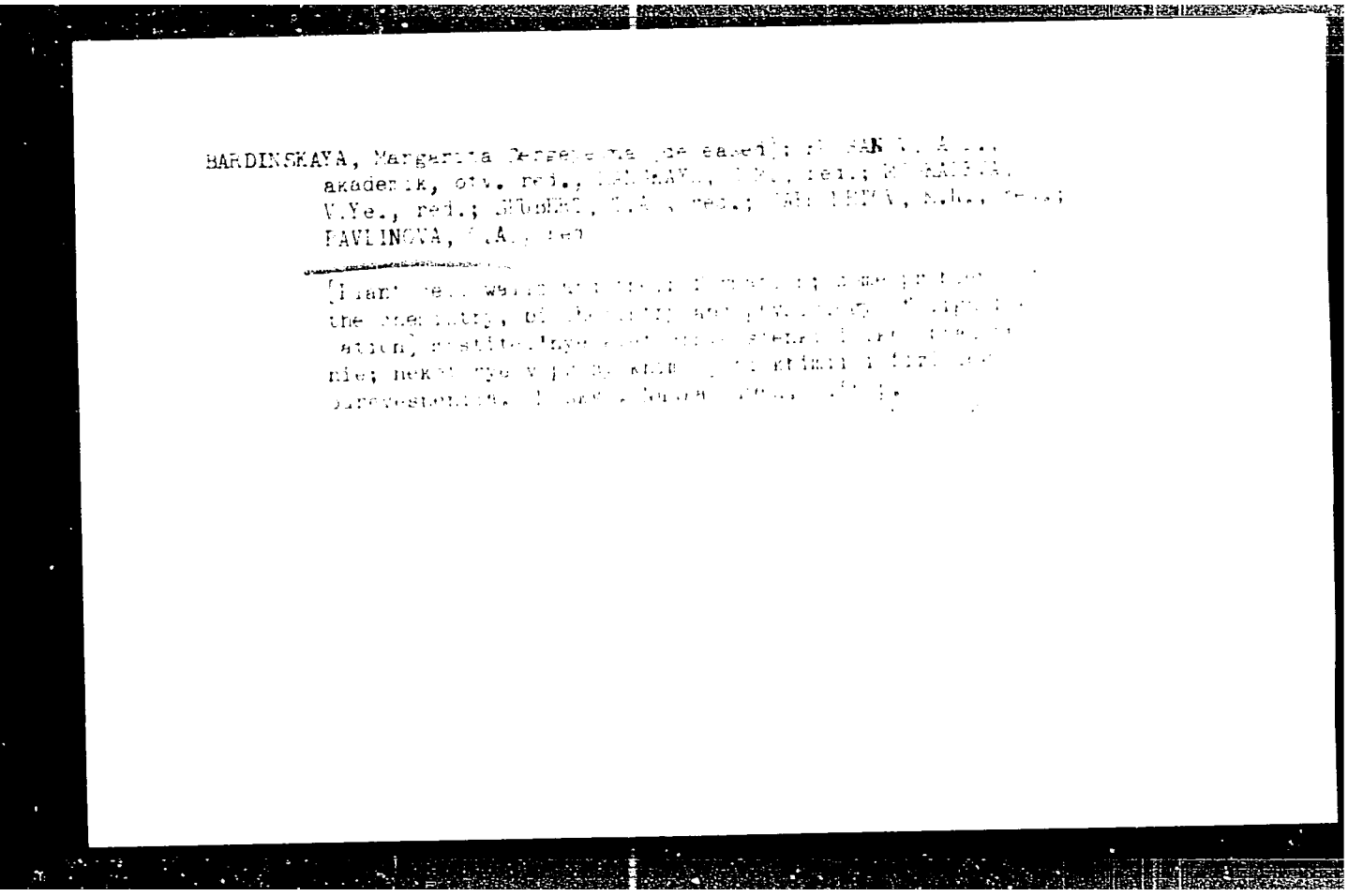
Glycolytic enzymes in conducting tissues of the sugar beet.
Fiziol.rast. 6 no.3:286-295 My-Je '59. (MIRA 12:8)

1. K.A.Timiryazev Institut of Plant Physiology, The U.S.S.R.
Academy of Sciences, Moscow.
(Sugar beets) (Glycolysis) (Plant cells and tissues)

PAVLINOVA, O.A.

Comparative investigation of acid-soluble nucleotides in the phloem and xylem of the conducting bundles of cow parsnip (Heracleum Sosnowskyi). Fiziol.rast. 12 no.4:606-617 Jl-Ag '65. (MIRA 18:12)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva AN SSSR, Moskva. Submitted April 29, 1964.



BARDINSKAYA, Margarita [illegible]; [illegible] SAN'YAN, A. [illegible], akademik, otv. red.; [illegible], V.Ye., red.; [illegible], V.A., red.; [illegible], N.N., [illegible]; PAVLINOVA, [illegible], red.

[illegible]

PAVLINOVA, O. A.

"Free nuclectides of a sugar beet."

report submitted for 10th Intl Botanical Cong, Edinburgh, 5-12 Aug 64.

SHUBERT, T.A.; PAVLINOVA, O.A.

Margarita Sergeevna Bardinskaia; an obituary. Fiziol. rast. 10 no.2:260-261 Mr-Ap '63. (MIRA 16:5)

(Bardinskaia, Margarita Sergeevna, 1915?-1962)

STEPANENKO, B.N.; ROZENFEL'D, Ye.L.; PAVLINOVA, O.A.; LINEVICH, L.I.

First International Colloquium on Carbohydrate Biochemistry in Gif-sur-Yvette, France. Biokhimiia 26 no.3:567-568 My-Je '61. (MIRA 14:6)

(CARBOHYDRATES) (BIOCHEMISTRY)

PAVLINOVA, O.A.

Metabolism of conducting tissues. Izv. AN SSSR. Ser. biol. no.2: 239-245 Mr-Ap '61. (MIRA 14:3)

1. Timiryazev Institute of Plant Physiology, Academy of Sciences of the U.S.S.R., Moscow.
(PLANTS--METABOLISM)

PAVLINOVA-IL'INA, L.B.

New data on the fauna of Konka beds. Trudy VNIGNI no.8:138-159 '57. (MIRA 12:2)

(Paleontology)

PAVLINOVA, R.M., kand. biol. nauk; ZUBKOVSKIY, B.V.; TULEULOVA, Ye.T.; NELEGKOVA, V.G.; SMIRNOVA, I.K.; IVANOVA, L.I.; GUBERNSKAYA, L.T., red.

[Control of biological fouling at the Neman Combine] Bor'ba s biologicheskimi obrastaniiami na Nemanskom kombinate. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issledovanii po lesnoi, tselliulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz., 1963. 24 p. (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyulozno-bumazhnoy promyshlennosti (for Pavlinova, Zubkovskiy, Tuleulova). 3. Nemanskiy tsellyulozno-bumazhnyy kombinat (for Nelegkova, Smirnova, Ivanova).

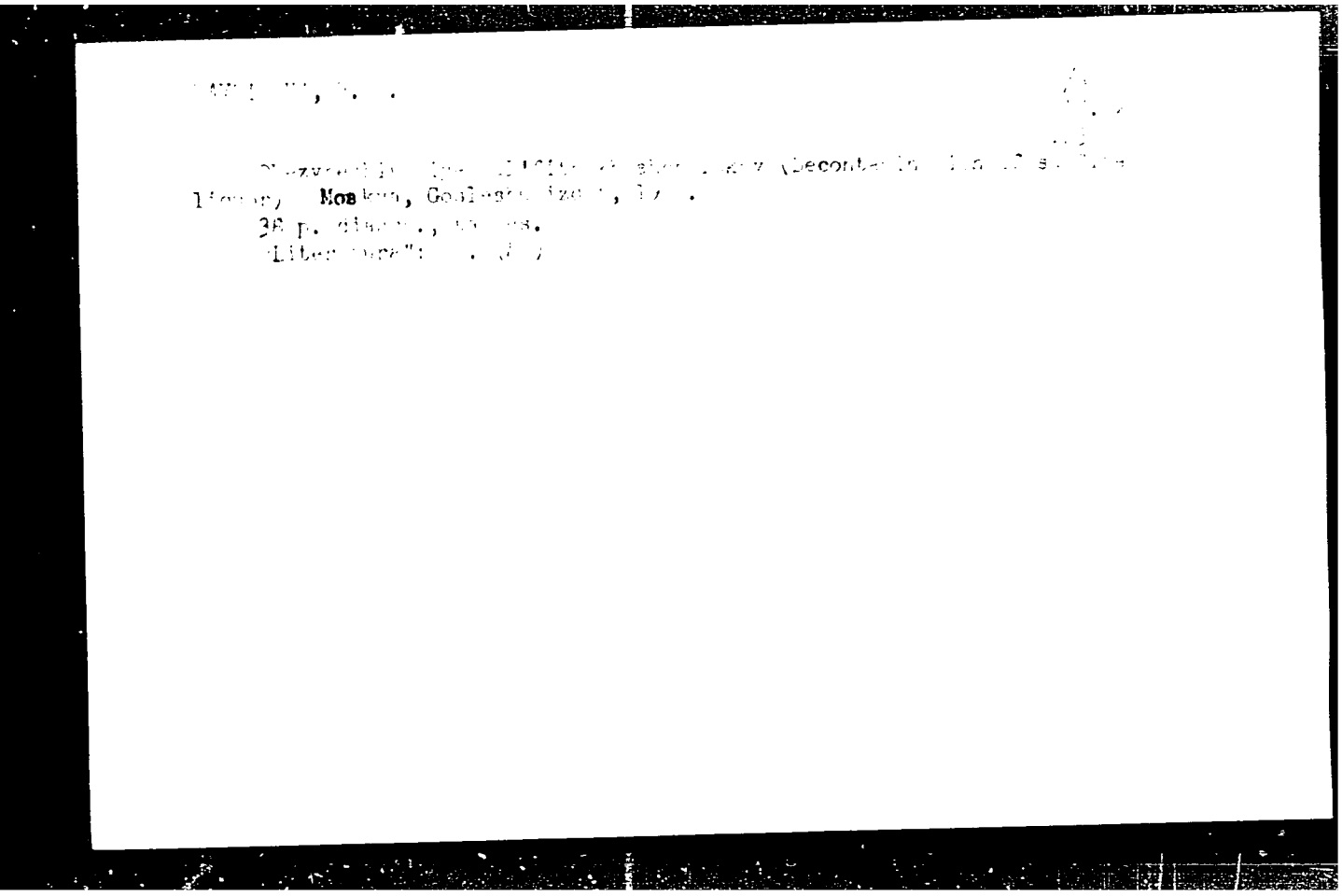
PAVLINOVA, R.M.; KULEV, I.G., redaktor; SHMEL'KINA, S.I., tekhnicheskiy redaktor

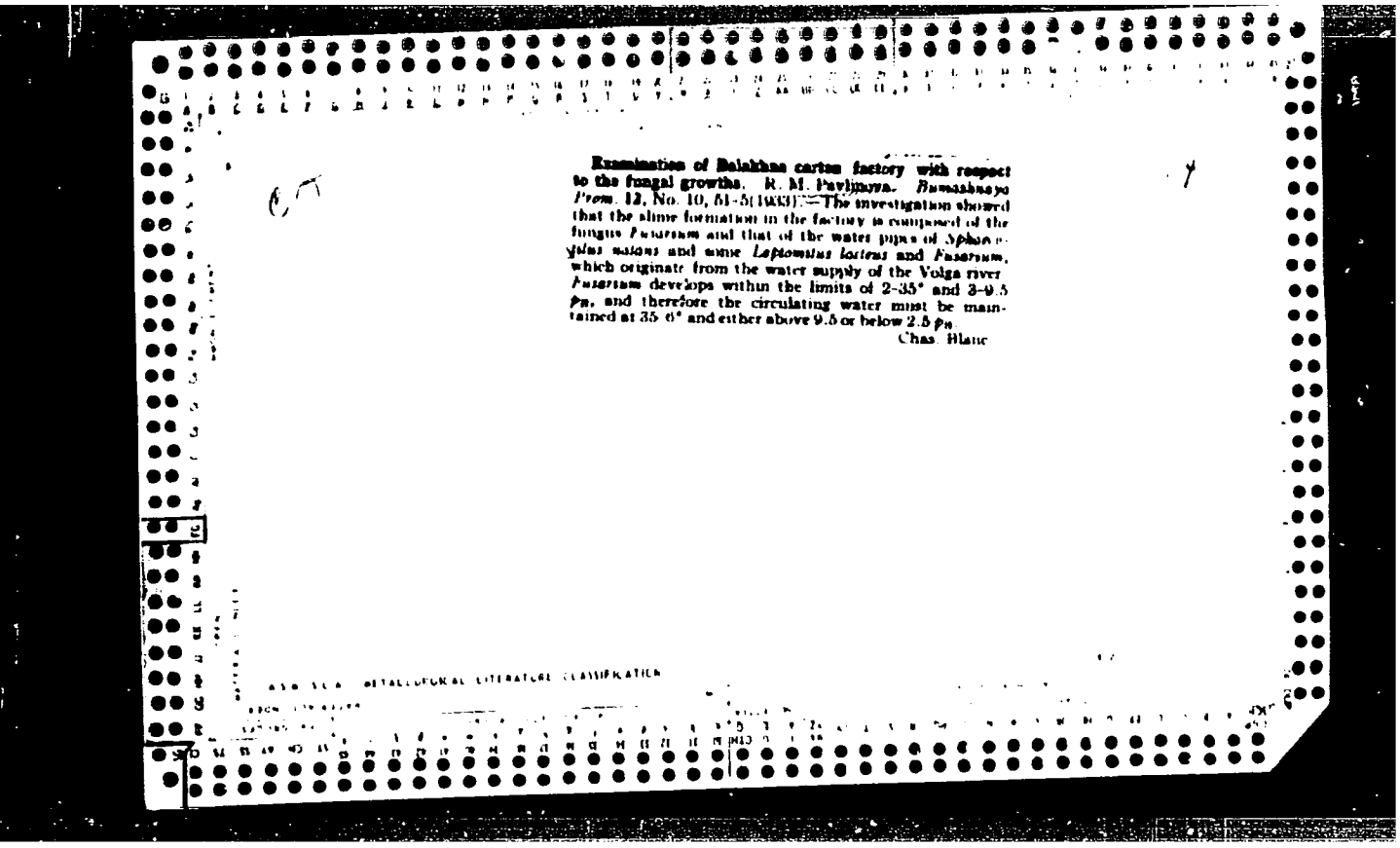
[Decontamination of sulfite liquor] Obezvreshivanie sul'fitnykh shchelokov. Moskva, Goslesbumizdat, 1953. 38 p. [Microfilm] (MLRA 7:10)
(Sulfite liquor)

PAVLINOVA, R.M., kand.biol.nauk

Use of disinfectants is a requisite for the improvement of paper quality and for the increase in the output of paper-making machines. Bum.prom. 34 no.8:10-11 Ag '59. (MIRA 12:12)

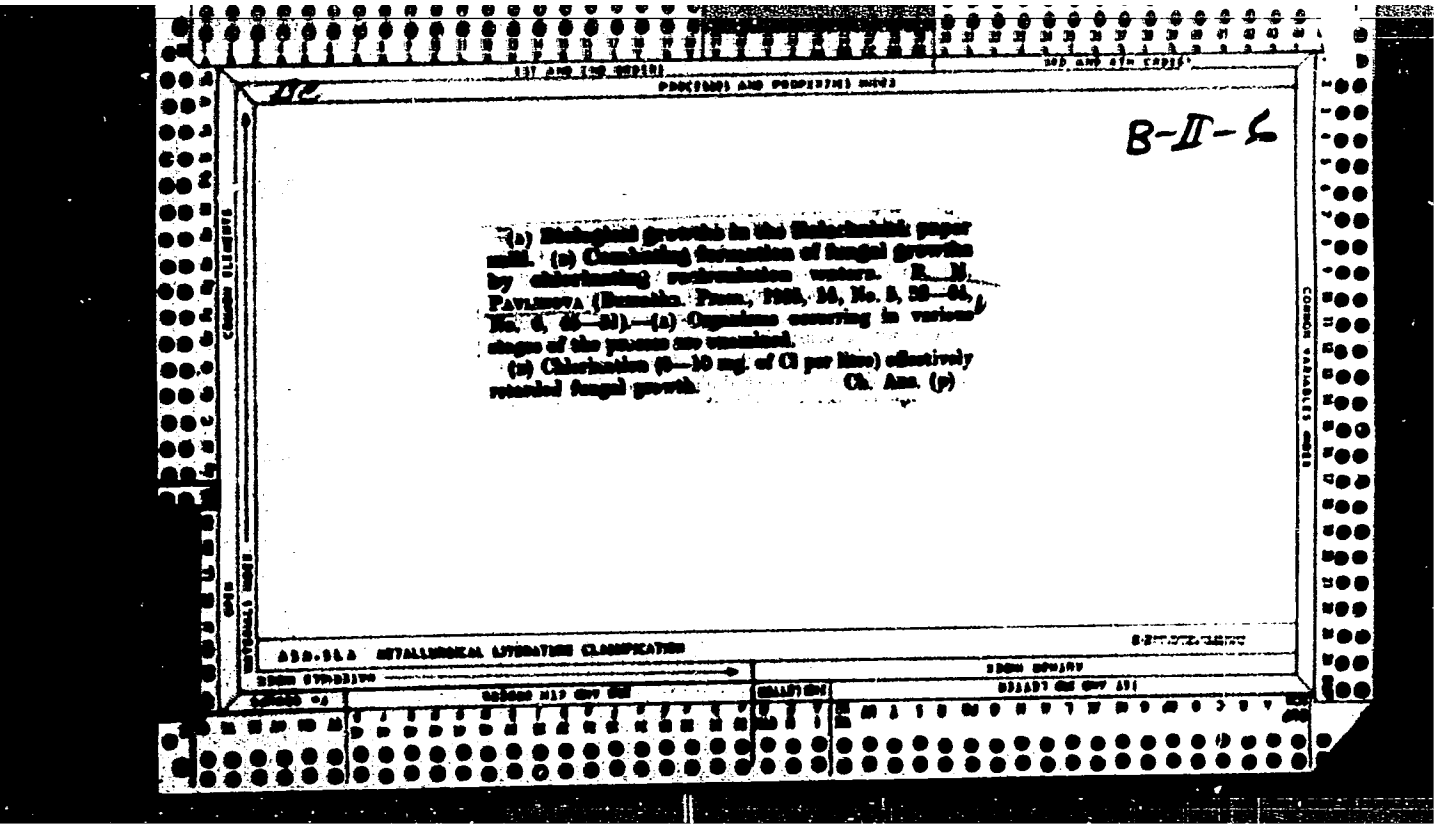
1. Moskovskiy filial TSentral'nogo nauchno-issledovatel'skogo instituta tsellyuloznoy i bumazhnoy promyshlennosti.
(Disinfection and disinfectants)
(Paper industry)





Examination of Balakhna carton factory with respect to the fungal growths. R. M. Pavlinova. *Bumazhnaya Prom.* 12, No. 10, 51-5(1933).—The investigation showed that the slime formation in the factory is composed of the fungus *Fusarium* and that of the water pipes of *Sphaero-ylus natans* and some *Leptomitus lacteus* and *Fusarium*, which originate from the water supply of the Volga river. *Fusarium* develops within the limits of 2-35° and 3-9.5 *p*H, and therefore the circulating water must be maintained at 35-6° and either above 9.5 or below 2.5 *p*H.

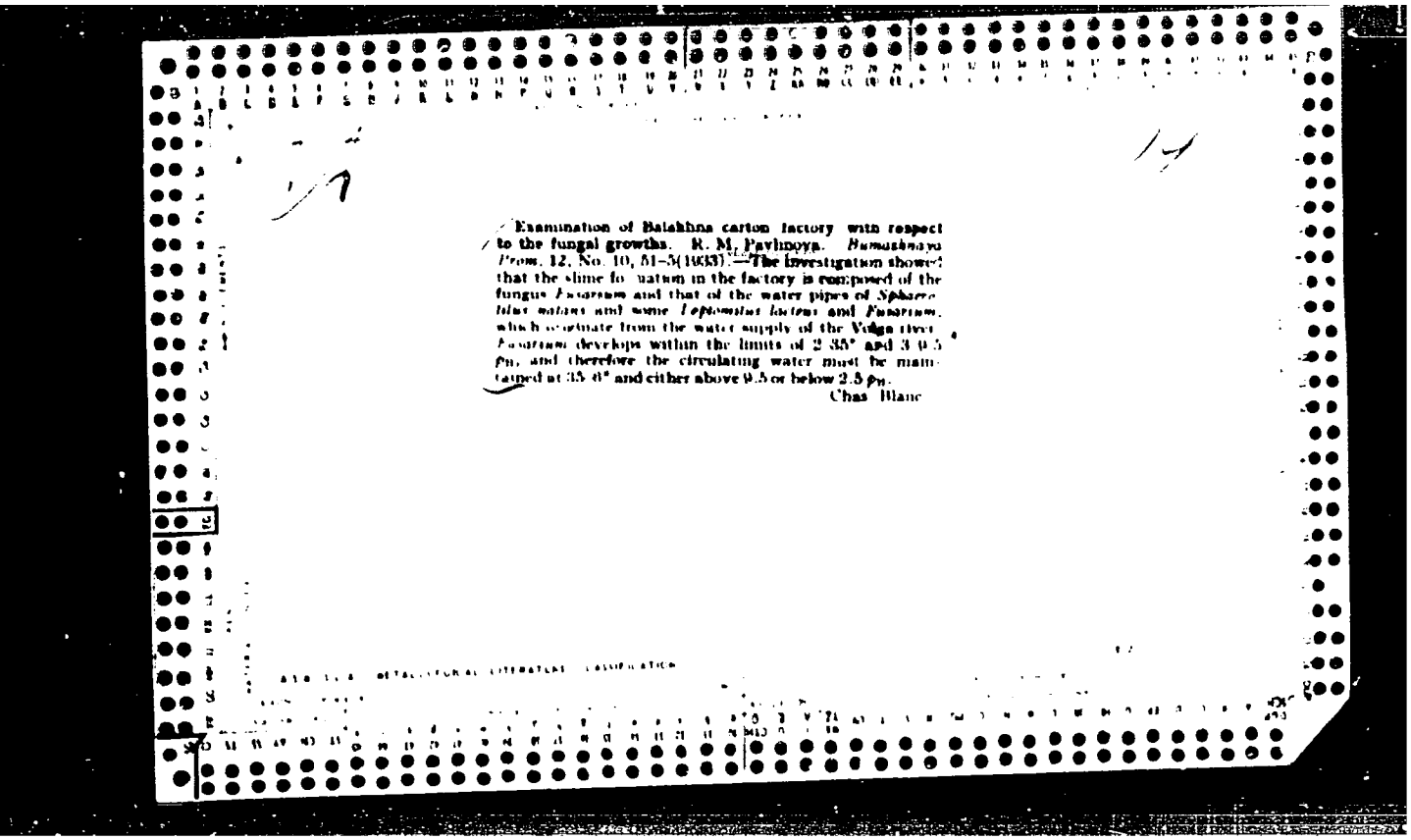
Chas. Blanc



B-II-6

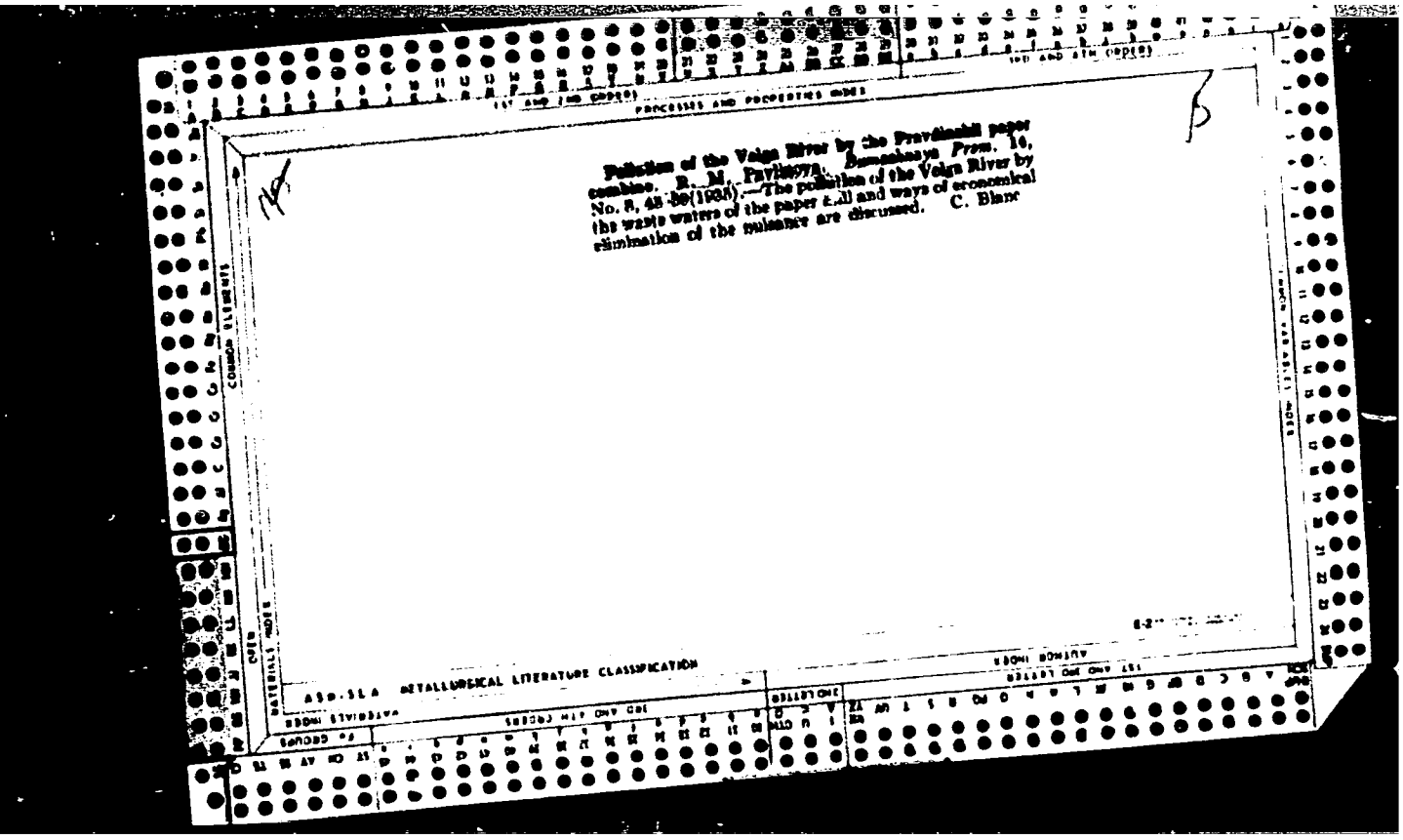
(a) Biological growths in the Bakchabkhi paper mill. (a) Combating formation of fungal growths by chlorinating rechirculation waters. R. M. PAVLINOVA (Bumazh. Prom., 1956, 31, No. 5, 28—31, Ref. Zh., 1957, No. 21).—(a) Operations occurring in various stages of the process are examined.

(a) Chlorination (5—10 mg. of Cl per litre) effectively retarded fungal growth. Ch. Abs. (p)

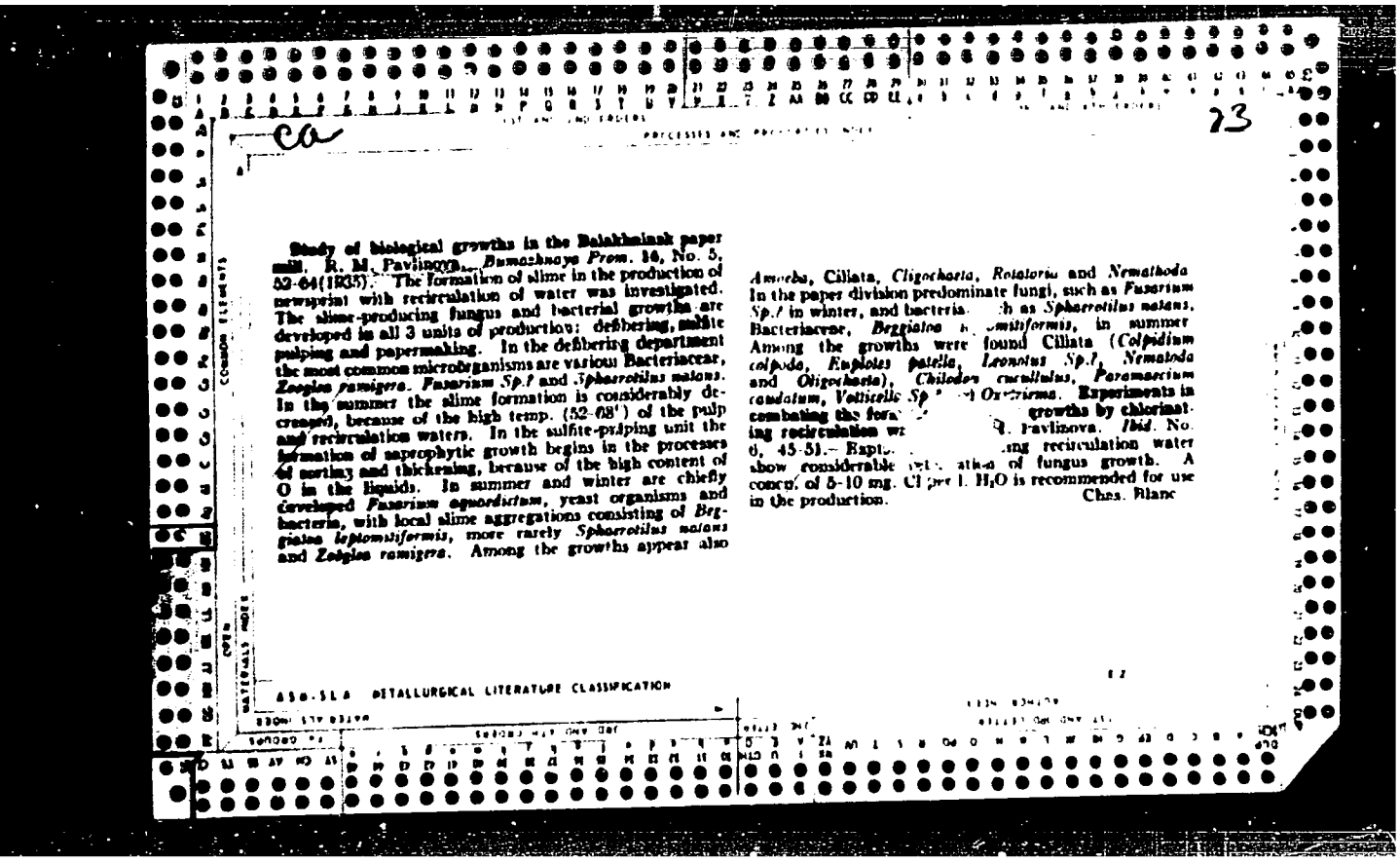


Examination of Balakhna carton factory with respect to the fungal growths. R. M. Pavlinova. *Bumazhnaya Prom.* 12, No. 10, 31–5(1933).—The investigation showed that the slime formation in the factory is composed of the fungus *Fusarium* and that of the water pipes of *Sphaerotilus natans* and some *Leptomitus lacteus* and *Fusarium*, which originate from the water supply of the Volga river. *Fusarium* develops within the limits of 2.35° and 3.0.5 p_H, and therefore the circulating water must be maintained at 35.4° and either above 9.5 or below 2.5 p_H.

Chas Blanc

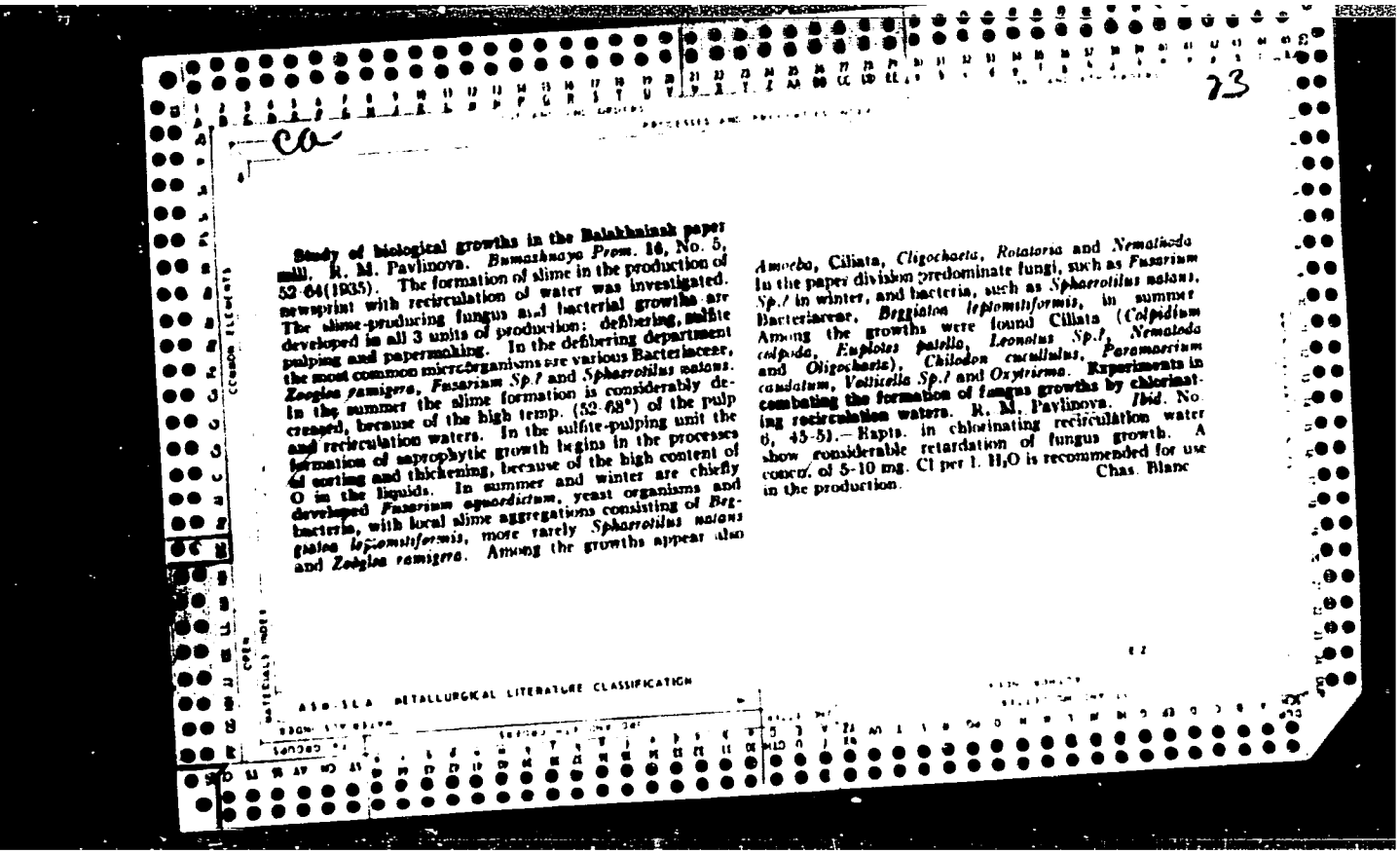


Pollution of the Volga River by the Pravdinskii paper combine. R. M. Pavlinova. *Bumazhnaya Prom.* 16, No. 8, 45-50(1936).—The pollution of the Volga River by the waste waters of the paper mill and ways of economical elimination of the nuisance are discussed. C. Blanc



Study of biological growths in the Balakhninsk paper mill. R. M. Pavlinova. *Bumazhnaya Prom.* 10, No. 5, 52-64(1935). The formation of slime in the production of newsprint with recirculation of water was investigated. The slime-producing fungus and bacterial growths are developed in all 3 units of production: defibering, sulfite pulping and papermaking. In the defibering department the most common microorganisms are various Bacteriaceae, *Zoogloea ramigera*, *Fusarium Sp.?* and *Sphaerotilus natans*. In the summer the slime formation is considerably decreased, because of the high temp. (52-68°) of the pulp and recirculation waters. In the sulfite-pulping unit the formation of saprophytic growth begins in the processes of sorting and thickening, because of the high content of O in the liquids. In summer and winter are chiefly developed *Fusarium aquaeductum*, yeast organisms and bacteria, with local slime aggregations consisting of *Beggiatoa leptomitiformis*, more rarely *Sphaerotilus natans* and *Zoogloea ramigera*. Among the growths appear also *Amoeba*, Ciliata, *Oligochaeta*, *Rotatoria* and *Nematoda*. In the paper division predominate fungi, such as *Fusarium Sp.?* in winter, and bacteria, such as *Sphaerotilus natans*, Bacteriaceae, *Beggiatoa leptomitiformis*, in summer. Among the growths were found Ciliata (*Colpidium colpoda*, *Euplotes patella*, *Leonotus Sp.?*, *Nematoda* and *Oligochaeta*), *Chilodon cucullulus*, *Paramaecium caudatum*, *Vorticella Sp.?* and *Oxytricha*. Experiments in combating the formation of growths by chlorination during recirculation were [illegible] V. Pavlinova. *Ibid.* No. 6, 45-51.— Experiments using recirculation water show considerable retardation of fungus growth. A concn. of 5-10 mg. Cl per l. H_2O is recommended for use in the production.

Chas. Blanc



Study of biological growths in the Balakhninsk paper mill. R. M. Pavlinova. *Bumazhnaya Prom.* 10, No. 5, 52-64(1935). The formation of slime in the production of newsprint with recirculation of water was investigated. The slime-producing fungus and bacterial growths are developed in all 3 units of production: defibering, sulfite pulping and papermaking. In the defibering department the most common microorganisms are various Bacteriaceae, *Zoogloea ramigera*, *Fusarium Sp.?* and *Sphaerotilus natans*. In the summer the slime formation is considerably decreased, because of the high temp. (52-68°) of the pulp and recirculation waters. In the sulfite-pulping unit the formation of saprophytic growth begins in the processes of sorting and thickening, because of the high content of O in the liquids. In summer and winter are chiefly developed *Fusarium aquaeductum*, yeast organisms and bacteria, with local slime aggregations consisting of *Beggiatoa leptomitiformis*, more rarely *Sphaerotilus natans* and *Zoogloea ramigera*. Among the growths appear also *Amoeba*, Ciliata, *Oligochaeta*, *Rotatoria* and *Nematoda*. In the paper division predominate fungi, such as *Fusarium Sp.?* in winter, and bacteria, such as *Sphaerotilus natans*, Bacteriaceae, *Beggiatoa leptomitiformis*, in summer. Among the growths were found Ciliata (*Colpidium colpoda*, *Euplotes patella*, *Leonotus Sp.?*, *Nematoda* and *Oligochaeta*), *Chilodon cucullulus*, *Paramecium caudatum*, *Vorticella Sp.?* and *Oxytricha*. **Experiments in combating the formation of fungus growths by chlorinating recirculation waters.** R. M. Pavlinova. *Ibid.* No. 6, 45-53.—Hapts. in chlorinating recirculation water show considerable retardation of fungus growth. A concn. of 5-10 mg. Cl per l. H_2O is recommended for use in the production.

Chas. Blanc

ZHUKOV, A.I.; MAKEKOVA, V.M.; PAVLINOV, E.V.

Sorption of pyridine by carboxylic resins. Zhur. prikl. khim. 37 no. 4:860-864 Ap '64. (MIRA 17:5)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.

PAVLINOVA, V.N.

LI SY-GUAN [Li, Ssu-kuang]; TSYAN' SYAN-LIN [Ch'ien Hsiang-ling] [translator]; CHZAO PEN-DA [Chao P'ên-ta] [translator]; PAVLINOVA, V.N., prof., red.; MUKHIN, S.S., red.izd-va; GUROVA, O.A., tekhn.red.

[Vortical structures and other problems related to the combination of geotectonic systems of northwestern China. Translated from the Chinese] Vikhrevye struktury i drugie problemy otnosiashchiesia k sochetaniiu geotektonicheskikh sistem Severo-Zapadnogo Kitaia [Perevods s kitaiskogo TSian' Sian-lina i Chzhao Pen-da.] Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol. o okhrane nedr, 1958. 129 p. (MIRA 11:4)

(China--Geology, Structural)

BELINSKAYA, Ye.A.; PAVLINOVA, V.V.

Journal "Landtechnische Forschung" in 1958 (list and summaries of principal articles). Mekh.i elek.sots.sel'khoz. 17 no.5: 63-64 '59. (MIRA 12:12)
(Germany--Agricultural machinery--Periodicals)

VASIL'YEV, Aleksey Leonidovich; GLOZMAN, Moisey Kalmanovich;
PAVLINOVA, Yevgeniya Alekseyevna; FILIPPOV, Maz'ya
Valentinovich; GOLBERG, Ye.M., inzh., retsenzent;
KOROTKIN, Ya.I., kand. tekhn. nauk, retsenzent;
KONTOROVICH, B.M., nauchn. red.; KLIORINA, T.A., red.

[High-strength corrugated ship bulkheads] Prochnye sudovye gofrirovannye peregorki. [By] A.L.Vasil'ev i dr. Leningrad, Sudostroenie, 1964. 315 p. (MIRA 17:3)

FILIPPEO, M.V., kand. tekhn. nauk; PAVLINOVA, Ye.A., kand. tekhn. nauk

Stability of corrugated bulkheads with wavy corrugations under the effect of axial compression. Sudostroenie 28 no.1: 11-12 Ja '62. (MIRA 16:7)

(Bulkheads(Naval architecture)—Testing)

L 25558-66 (N) EWT(d)/EWT(m)/EWP(h)/EWP(l) TT/WE

ACC NR: AM6004767 Monograph UR/

Knoring, Semen Davydovich; Pavlinova, Yevgeniya Alekseyevna; Filippov, Maksim Valentinovich; Shpakov, Vladimir Stepanovich, Shtokal, Valentin Mikhaylovich

Floating flexible vessels for the transportation of petroleum products; problems of durability and hydrodynamics, and theory and methods of calculation (Plavuchiye elastichnyye yemkosti dlya transportirovki nefteproduktov; voprosy prochnosti i gidrodinamiki, teoriya i metody rascheta) Leningrad, Izd-vo "Sudostroyeniye", 1965. 225 p. illus., biblio. 1,250 copies printed

TOPIC TAGS: ocean transportation, inland vessel data, merchant vessel data, cargo ship, solid statics, hydrodynamics

PURPOSE AND COVERAGE: The book presents the results of investigations of the strength and speed of new means of transportation--floating elastic vessels intended for the transportation of petroleum products and other liquid loads on sea and inland waterways. Experience and design of manufacture of such vessels, accumulated in Soviet and foreign shipbuilding is described. Practical methods for calculating the strength and speed of floating elastic vessels under all principal operating conditions are given. Recommendations on the design and construction of such vessels are presented. The bulk of the investigations reported were made by the authors and are published for the first time. The book is intended for engineering-technical workers in design offices and in the shipbuilding industry, and can also be used by students of shipbuilding institutes and faculties. Authors thank N. P. Bytov, A. L. Koshevoy, B. I.

UDC: 629.12.011.17

Card 1/2

L 25558-66

ACC NR: AM5004767

Golod, R. V. Prokhorov, and V. YA. Aleksandrov and also YU. P. Ryabkov for useful remarks, and N. V. Alekseyeva for great help in the calculations and the reduction of the experimental data. The sections of the book devoted to shell strength were written by S. D. Knoring, YE. A. Pavlinova, and M. V. Pillipso, and the hydromechanic sections were written by V. N. Shtumpf and V. S. Shpakov.

TABLE OF CONTENTS [abridged]:

SUB CODE: 13/ SUBM DATE: 17Sep65/ ORIG REF: 041/ OTH REF: 009

Card 2/2 FW

PAVLINSKIY, G.V.; LOSEV, N.F.

Excitation of the secondary X-ray spectrum by mixed primary emission. Zav. lab. 29 no.9:1067-1070 '63. (MIRA 17:1)

1. Institut geokhimii Sibirskogo otdeleniya AN SSSR i Irkutskiy institut redkikh metallov.

PAVLINSKIY, G.V.; LOSEV, N.F.

Relationship between the intensity of a secondary spectrum line and voltage on a tube. Zav.lab. 27 no.11:1374-1375 '61. (MIRA 14:10)

1. Institut geokhimii Sibirskogo otdeleniya AN SSSR.
(Spectrum analysis)

PAVLINSKIY, G.V.; LOSEV, N.F.; MAKOV, V.M.

Effect of the spectral composition of primary radiation on the accuracy of the calibration method in X-ray fluorescence analysis. Zav. lab. 31 no.9:1077-1081 '65. (MIRA 18:10)

1. Institut geokhimii Sibirskogo otdeleniya AN SSSR.

BAYKOV, V.S.; PAVLINSKIY, I.N.

Determination of hydrogen in steel. Vop.proizv.stali no.7: 63-73 '60. (MIRA 13:8)
(Steel--Hydrogen content)

PAVLINSKIY, I.N.

BAYKOV, V.S.; PAVLINSKIY, I.N.

Usovershenstvovanie metodiki opredeleniya vodoroda v shikhtovoy stali.

Report submitted for the 5th Physical Chemical Conference on Steel Production.

MOSCOW 30 JAN 59

S/137/62/000/003/183/191
A154/A101

AUTHORS: Baykov, V. S.; Pavlinskiy, I. N.

TITLE: Examination of methods for determining hydrogen in steel

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 5, abstract 3 K 20 (Sb. "Fiz.-khim. osnovy proiz-va stali". Moscow, AN SSSR, 1961, 279 - 286)

TEXT: When determining the H content in steel by the vacuum-heating method, other gases, mainly water vapors and CO, are also extracted. A diagram of equipment for full analysis of the gases is given. It was found that the total content of H and water vapors in the extracted gases varies from 80 to 96 %, the amount of water vapors in the examined gases was up to 0.9 ml per 100 g of steel. The CO content of the extracted gases hardly depends on the C content of the steel. Adsorption of moisture on the analytical equipment introduces a considerable error into the analysis for H, therefore moisture absorbers with a low vapor pressure must be used. For determining H for industrial purposes, it may be recommended to use a moistureless prevacuum heating device and to take

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S/137/62/000/003/163/191
A154/A101

Examination of methods for determining ....

the samples by a syphon sampler with nicks.

L. Vorob'yeva.

[Abstracter's note: Complete translation]

Card 2/2

PAVLENNYY, L. A.; SOROKA, M. F.

Incubators

Operation of [illegible] incubators [illegible]. Ptitsevodstvo No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June [illegible].

LITVINOV, O.,kand.tekhn.nauk; PAVLIS, G.,inzh.

Gas heaters. Stroitel' no.2:19-20 F '59. (MIRA 12:5)
(Building--Cold weather conditions) (Drying apparatus)

PAVLIS, G. [Pavlis, H.], inzh., TKACHENKO, V., inzh.; KIRTBAYA, Zh., inzh.

Using large blocks in building houses in Kiev. Prœk. i bud. 1 no.1:34-36 0 '59. (MIRA 13:12)
(Kiev--Apartment houses) (Building blocks)

PLEKHOV, N.D.; LUPAN, A.M.; ABRAMOV, L.S.; BOGDANOVSKIY, V.S.; REZNICHENKO, V.I.; GREKOVA, Z.I.; GOLUB, P.I.; ENDRZHEYEVSKIY, Ye.V.; BELOSHKURSKIY, P.I.; PODDUBNAYA, N.A.; MIROSHNIKOV, P.P.; KORNEYEVA, L.P.; ZLOTNIKOV, G.Z.; PAVLIS, G.F.; SKACHKOV, I.A.; SEDELEVA, Ye.P.; POLTORATSKAYA, E.A., red.; LEUSHCHENKO, N.L., tekhn.red.

[Three-dimensional apartment house construction] Ob"emnoe domostroenie. Kiev, Gosstroiizdat USSR, 1963. 165 p. (MIRA 17:2)

1. Nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy.

PAVLIS, G. F., inzhener.

Efficient types of building tools. Shakht.stroi. no.4:27-28 Ap '57.
(MLRA 10:7)
(Construction industry--Equipment and supplies)

CHERNOBYL'SKIY, I.I., dr. tekhn.nauk; PAVLISHCHEV, M.I., inzh.

Experimental study of critical thermal currents in the boiling of a water and alcohol mixture. Izv.vys.ucheb.zav.; energ. 5 no. 8:113-115 Ag '62. (MIRA 17:?)

1. Kiyevskiy ordena Lenina politekhnicheskiy institut. Predstavlena kafedroy mashin i apparatov khimicheskikh proizvodstv.

PAVLISHCHEV, M. I. (Kiev Polytechnical Inst.)

"Results of cinematographic investigation of growth of steam bubbles during boiling of solutions."

Report presented at the Section on Heat Exchange During Change of Aggregate State, Scientific Session, Council of Acad. Sci. Ukr SSR on High Temperature Physics, Kiev, 2-4 April 1963.

Reported in Teplofizika Vysokikh temperatur, No. 2, Sep-Oct 1963, p 321, JPRS 24,695, 19 May 1964.

S/133/63/000/001/009/011
A054/A126

AUTHORS: Filonov, V. A. (Deceased), Lola, V. N., Pavlishchev, V. B., Petrenko, I. S., Engineers

TITLE: Flame cleaning of stainless steel ingots and preparing slabs for rolling

PERIODICAL: Stal', no. 1, 1963, 73 - 75

TEXT: The surface defects of 12-ton stainless steel ingots (maximum cross section: 640 x 1,100 mm, height: 2,200 mm) produced at the zavod "Dneprospetsstal'" ("Dneprospetsstal'" Plant) and rolled at the zavod "Zaporozhstal'" (Zaporozhstal'" Plant) could not be removed by conventional planing and grinding methods. In 1961, tests were carried out (in co-operation with L. N. Soroko, F. M. Dolmatov, M. Ye. Kugayenko, V. G. Antiyenko, F. A. Yevtushenko, V. K. Barziy, N. V. Pal'chik, N. P. Cherkashina, V. I. Kalabukhov, V. I. Kiselev, A. V. Sysoyev, Yu. V. Zagorul'ko, B. M. Tsirlin, V. D. Klipinitser, Engineers, et al.) to remove the surface defects of the ingots by flame-cleaning. Based on the construction of the PP -53 (RR-53) type flame cutter a special

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Flame cleaning of stainless steel ingots and...

apparatus was designed, in which the burning substance ejected from the head of the apparatus consisted of crushed calcium silicate and the so-called ПАМ-4 (PAM-4) powder (50% aluminum and 50% magnesium) in a volume ratio of 2 : 1. The heat developed by the burning mixture is sufficient for both carbon and stainless steels. Calcium silicate in the mixture has a fluxing effect on the high-smelting components, it makes the slag layer fluid and promotes its removal. The powder mixture is ejected through a jet of oxygen of 99.0% purity under a pressure of 10 atm. The cutter head is also supplied with natural gas (calorific value: 8,340 cal/stand m^3) under a pressure of 3 atm. One run of the flame cleaner cleans the ingot surface to a depth of 3 - 7 mm and over a width of 150 - 200 mm. Then follows the secondary cleaning, which removes the remaining deeper defects to a depth of 20 - 30 mm. After flame cleaning, the metal surface is slightly corrugated with ridges not higher than 3 mm. The metal loss in flame cleaning is 10 - 30 kg/ton of flawless metal, whereas in the planing process: up to 51 kg/ton. However, as flame cleaning alone did not produce the required flawless ingot surface and as it requires much labour, tests were carried out to combine it with other finishing processes, i.e. I. flame cleaning + local removal of single defects by grinding, II. flame cleaning + continuous

Card 2/3

grinding of the entire surface, III. flame cleaning + planing of the slabs and IV. planing of the slabs without any previous processing of the ingot surface. The best quality of rolled sheets was obtained with the application of version III, but this method is the most labour-intensive and has the highest metal consumption coefficient. The second best method is version I, which gives a surface not of the same quality as that obtained by version III, but it takes less labour and the metal consumption is lower. Therefore version III is only applied to slabs that have to satisfy very high standards, whereas version I is used in cases where the qualitative standards are not as high. Version II has no special advantages, except a very low consumption coefficient, and is about equivalent to the conventional process (IV). Therefore it is only used to overcome production bottlenecks. The parameters of the four versions are given. There are 2 figures.

ASSOCIATION: Zavod "Zaporozhstal'" ("Zaporozhstal'" Plant)

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