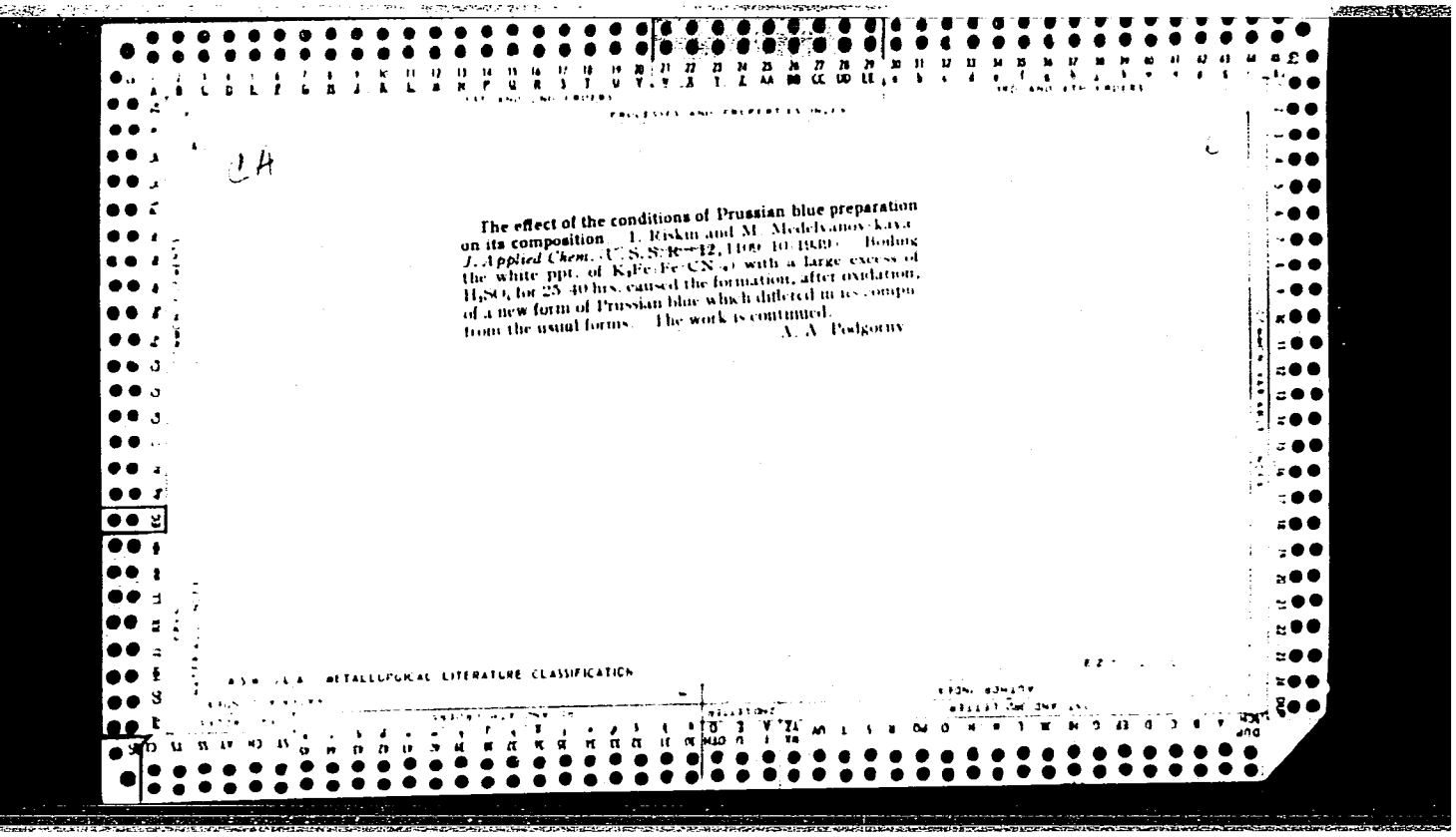
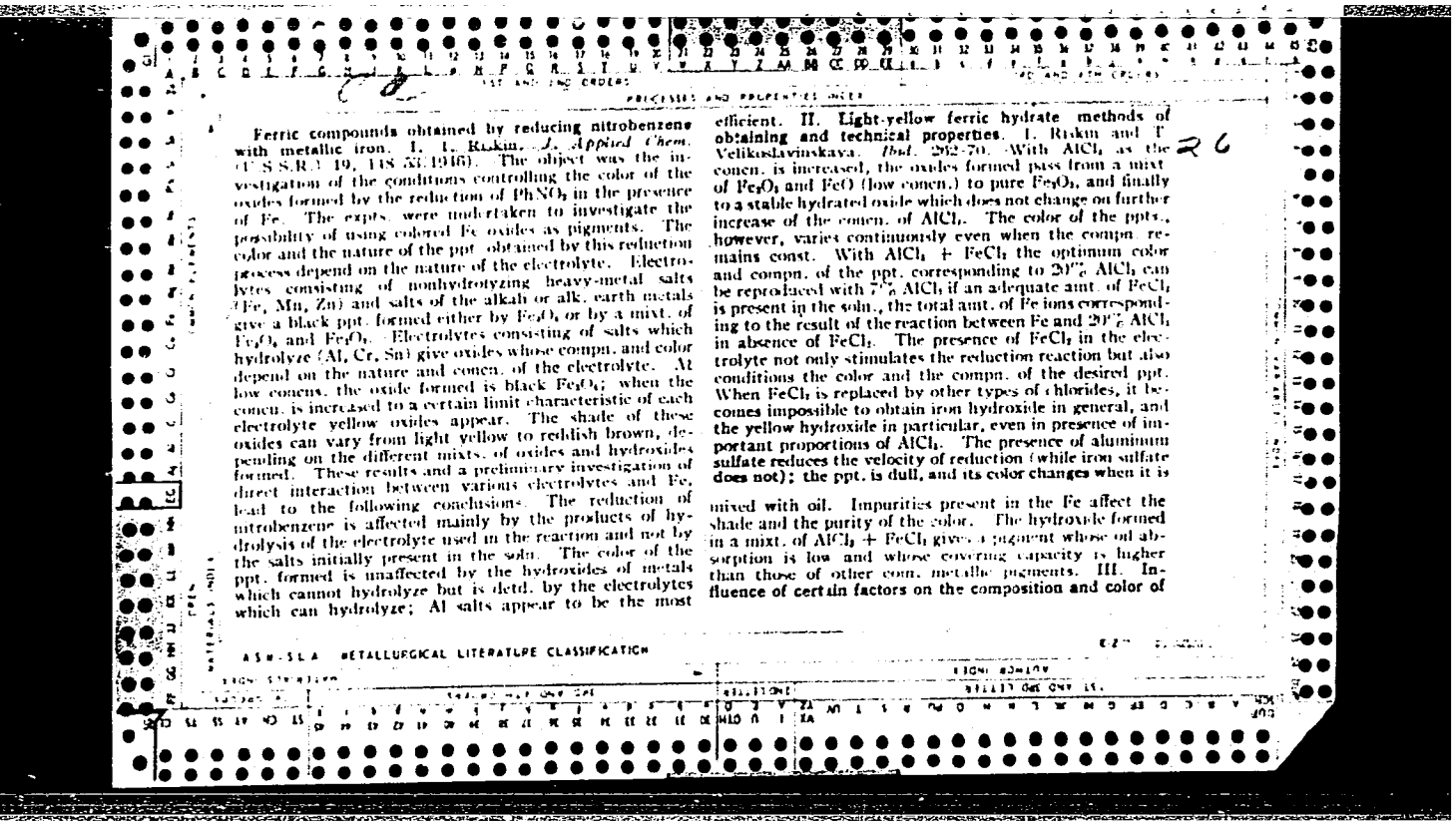


The effect of the conditions of Prussian blue preparation on its composition. I. Riskin and M. Medelyanovskaya. *J. Applied Chem.* (U.S.S.R.) 12, 1109–10 (1939).—Boiling the white ppt. of $K_2Fe[Fe(CN)_6]$ with a large excess of H_2SO_4 for 25–40 hrs. caused the formation, after oxidation, of a new form of Prussian blue which differed in its compn. from the usual forms. The work is continued.
A. A. Podgorny



Ferric compounds obtained by reducing nitrobenzene with metallic iron. I. L. Rukin. *J. Applied Chem. (U.S.S.R.)* 19, 118-33 (1946). The object was the investigation of the conditions controlling the color of the oxides formed by the reduction of $PhNO_2$ in the presence of Fe. The expts. were undertaken to investigate the possibility of using colored Fe oxides as pigments. The color and the nature of the ppt. obtained by this reduction process depend on the nature of the electrolyte. Electrolytes consisting of nonhydrolyzing heavy-metal salts (Fe, Mn, Zn) and salts of the alkali or alk. earth metals give a black ppt. formed either by Fe_3O_4 or by a mixt. of Fe_3O_4 and Fe_2O_3. Electrolytes consisting of salts which hydrolyze (Al, Cr, Sn) give oxides whose compn. and color depend on the nature and concn. of the electrolyte. At low concns. the oxide formed is black Fe_3O_4; when the concn. is increased to a certain limit characteristic of each electrolyte yellow oxides appear. The shade of these oxides can vary from light yellow to reddish brown, depending on the different mixts. of oxides and hydroxides formed. These results and a preliminary investigation of direct interaction between various electrolytes and Fe, lead to the following conclusions: The reduction of nitrobenzene is affected mainly by the products of hydrolysis of the electrolyte used in the reaction and not by the salts initially present in the soln. The color of the ppt. formed is unaffected by the hydroxides of metals which cannot hydrolyze but is detd. by the electrolytes which can hydrolyze; Al salts appear to be the most efficient. II. Light-yellow ferric hydrate methods of obtaining and technical properties. I. Rukin and T. Velikoslavinskaya. *Ibid.* 292-70. With $AlCl_3$ as the concn. is increased, the oxides formed pass from a mixt. of Fe_3O_4 and FeO (low concn.) to pure Fe_2O_3, and finally to a stable hydrated oxide which does not change on further increase of the concn. of $AlCl_3$. The color of the ppts., however, varies continuously even when the compn. remains const. With $AlCl_3$ + $FeCl_3$ the optimum color and compn. of the ppt. corresponding to 20% $AlCl_3$ can be reproduced with 7% $AlCl_3$ if an adequate amt. of $FeCl_3$ is present in the soln., the total amt. of Fe ions corresponding to the result of the reaction between Fe and 20% $AlCl_3$ in absence of $FeCl_3$. The presence of $FeCl_3$ in the electrolyte not only stimulates the reduction reaction but also conditions the color and the compn. of the desired ppt. When $FeCl_3$ is replaced by other types of chlorides, it becomes impossible to obtain iron hydroxide in general, and the yellow hydroxide in particular, even in presence of important proportions of $AlCl_3$. The presence of aluminum sulfate reduces the velocity of reduction (while iron sulfate does not); the ppt. is dull, and its color changes when it is mixed with oil. Impurities present in the Fe affect the shade and the purity of the color. The hydroxide formed in a mixt. of $AlCl_3$ + $FeCl_3$ gives a pigment whose oil absorption is low and whose covering capacity is higher than those of other com. metallic pigments. III. Influence of certain factors on the composition and color of

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

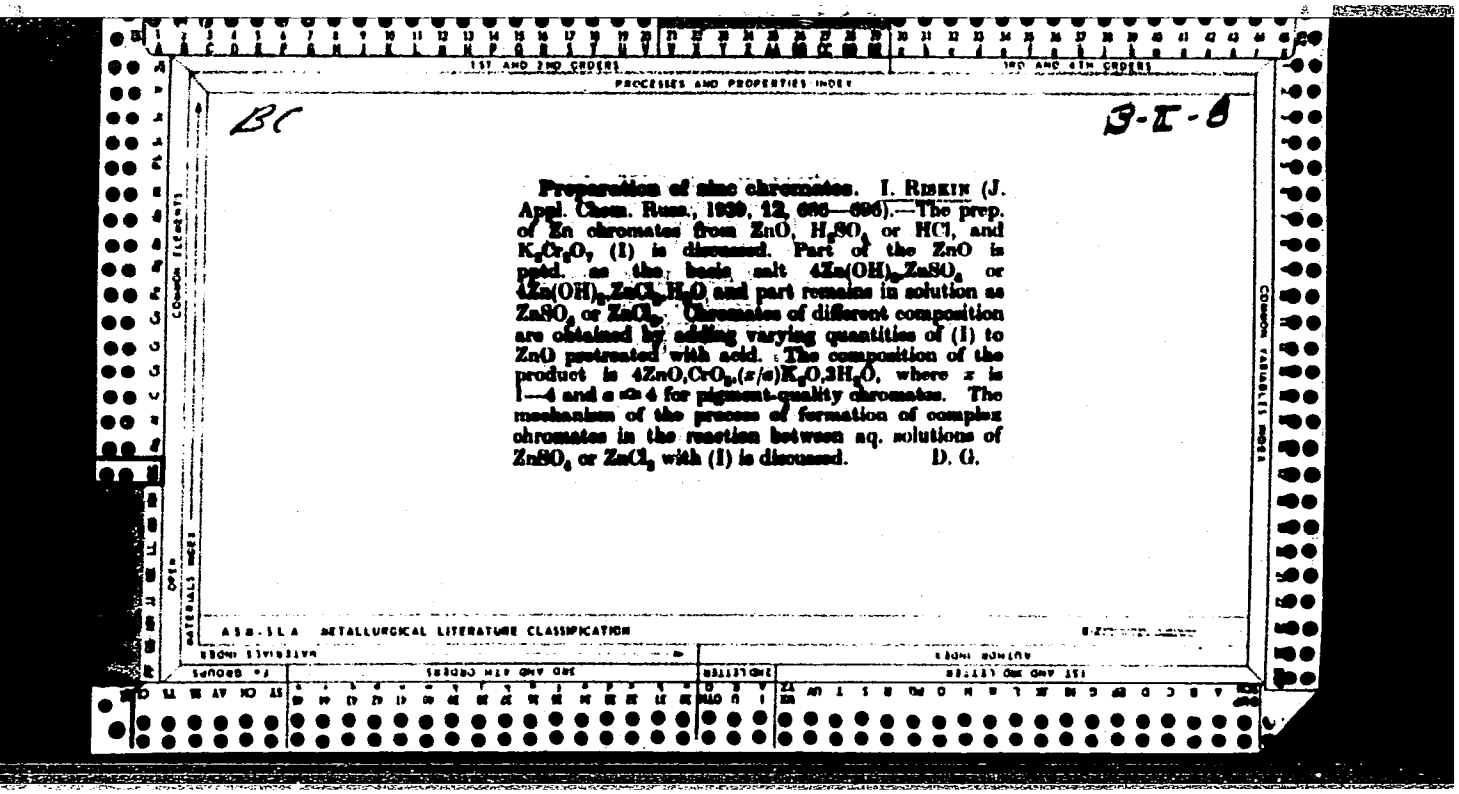
BC B-II-8

Preparation of zinc chromates (zinc chrome, zinc yellow). II. I. Raskin (with M. Charik). III. Use of sodium dichromate for preparation of zinc chromates. I. Raskin and G. Pugatscheva (J. Appl. Chem. Russ., 1939, 12, 1681—1691, 1780—1786; cf. B., 1940, 69).—II. The composition of the chromates obtained by treating ZnO with acid aq. $K_2Cr_2O_7$ varies between the limits $K_2O,4ZnO,4CrO_3,3H_2O$ (I) and $4ZnO,CrO_3,H_2O$ (II). (I) is quantitatively converted into (II) by treatment with hot H_2O. The depth of colour, covering capacity, and light-fastness of yellow enamels increase as the K and CrO_3 contents of the complexes rise.

III. Aq. $Na_2Cr_2O_7$ and $Zn(OH)_2$, $ZnCO_3$, or basic Zn salts give ppts. varying in composition from $4ZnO,CrO_3,3H_2O$ to $4ZnO,4CrO_3,Na_2O,3H_2O$; the yield, colour intensity, covering power, and rate of sedimentation of the ppts. rise with increasing Na_2O and CrO_3 content. The best results are obtained when ZnO, $Na_2Cr_2O_7$, and HCl are taken in the proportions 1 : 1·5 : 6·2. The ppts. are more sol. than are the corresponding K salts. The solubility of the ppts. obtained with 1 : 1 $K_2Cr_2O_7$–$Na_2Cr_2O_7$ = that with $K_2Cr_2O_7$ alone.

R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



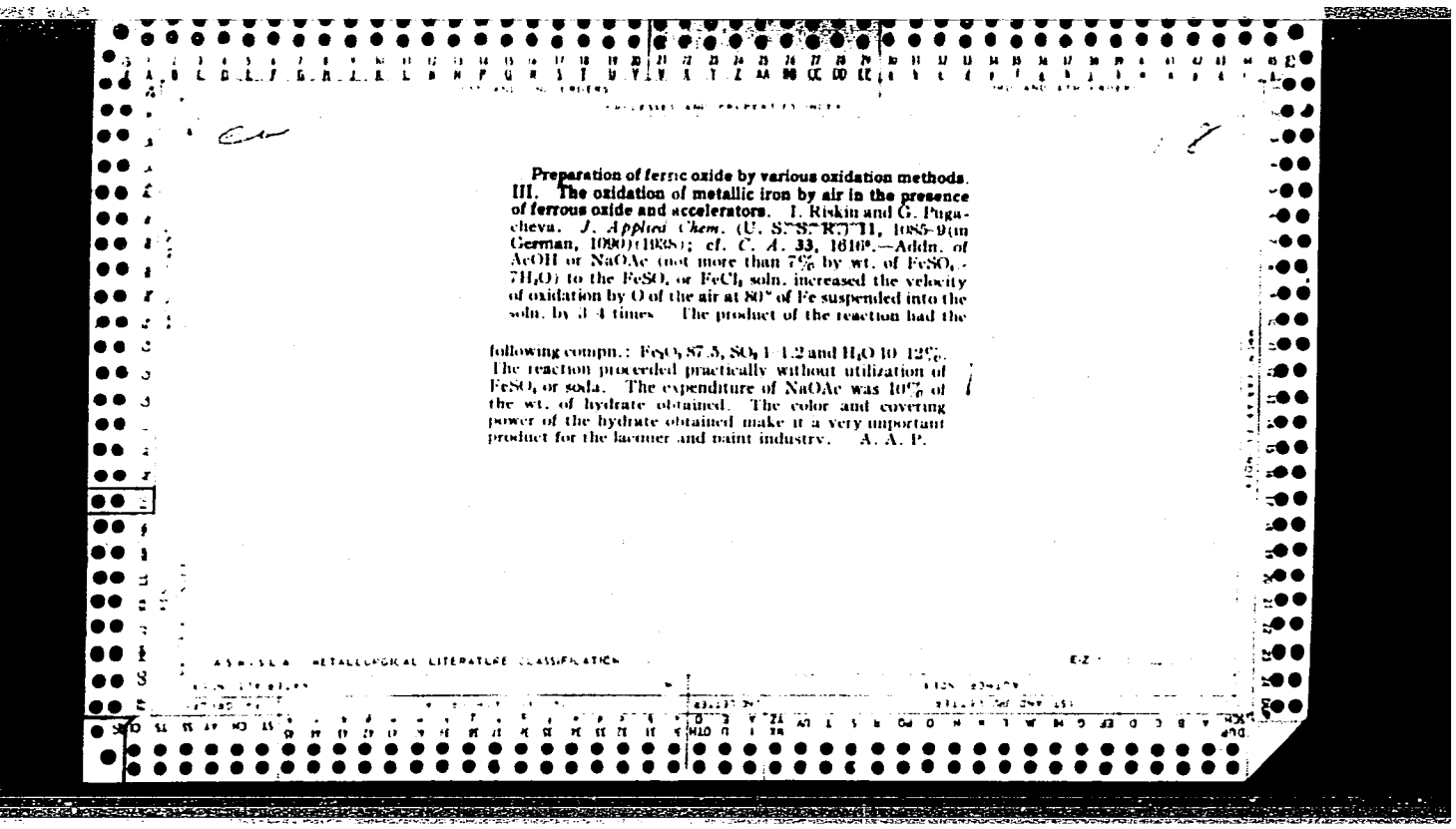
PROCESSES AND PROPERTIES INDEX

BC

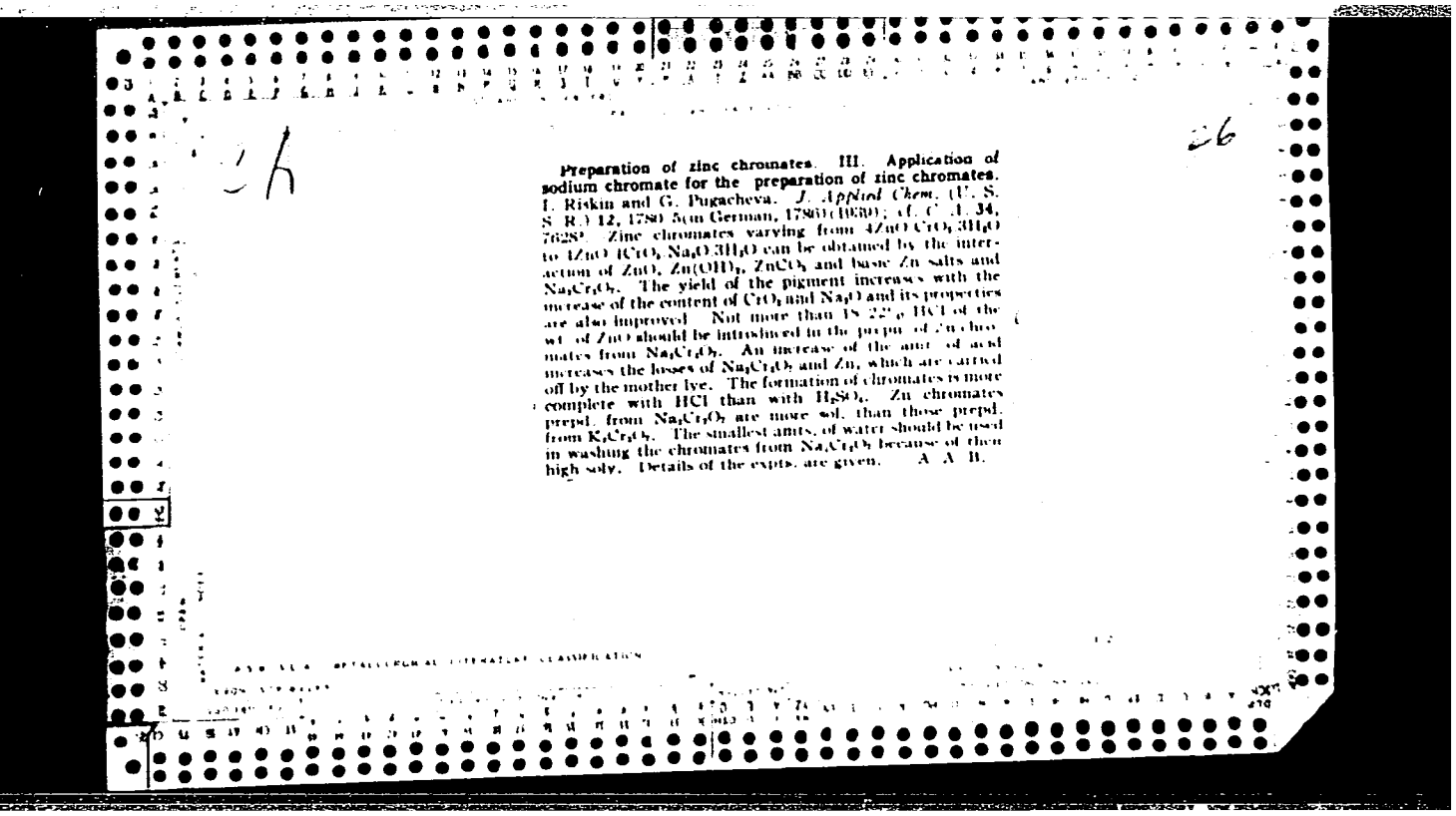
3-II-8

Preparation of zinc chromates. I. Riskin (J. Appl. Chem. Russ., 1939, 12, 686—696).—The prep. of Zn chromates from ZnO, H_2SO_4 or HCl, and $K_2Cr_2O_7$ (I) is discussed. Part of the ZnO is ppd. as the basic salt $4Zn(OH)_2.ZnSO_4$ or $4Zn(OH)_2.ZnCl_2.H_2O$ and part remains in solution as $ZnSO_4$ or $ZnCl_2$. Chromates of different composition are obtained by adding varying quantities of (I) to ZnO pretreated with acid. The composition of the product is $4ZnO,CrO_3,(x/a)K_2O,3H_2O$, where x is 1—4 and $a = 4$ for pigment-quality chromates. The mechanism of the process of formation of complex chromates in the reaction between aq. solutions of $ZnSO_4$ or $ZnCl_2$ with (I) is discussed. D. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Preparation of ferric oxide by various oxidation methods. III. The oxidation of metallic iron by air in the presence of ferrous oxide and accelerators. I. Riskin and G. Pugacheva. *J. Applied Chem.* (U. S. S. R.) 11, 1085-9 (in German, 1090) (1938); *cf. C. A.* 33, 1610⁹.—Addn. of AcOH or NaOAc (not more than 7% by wt. of $FeSO_4 \cdot 7H_2O$) to the $FeSO_4$ or $FeCl_2$ soln. increased the velocity of oxidation by O of the air at 80° of Fe suspended into the soln. by 3-4 times. The product of the reaction had the following compn.: Fe_2O_3 87.3, SO_3 1-1.2 and H_2O 10-12%. The reaction proceeded practically without utilization of $FeSO_4$ or soda. The expenditure of NaOAc was 10% of the wt. of hydrate obtained. The color and covering power of the hydrate obtained make it a very important product for the lacquer and paint industry. A. A. P.



Preparation of zinc chromates. III. Application of sodium chromate for the preparation of zinc chromates. I. Riskin and G. Pugacheva. *J. Applied Chem.* (U. S. S. R.) 12, 1780-5(in German, 1780)(1939); cf. C. A. 34, 7628². Zinc chromates varying from $4ZnO \cdot CrO_3 \cdot 3H_2O$ to $4ZnO \cdot CrO_3 \cdot Na_2O \cdot 3H_2O$ can be obtained by the interaction of ZnO, $Zn(OH)_2$, $ZnCO_3$ and basic Zn salts and $Na_2Cr_2O_7$. The yield of the pigment increases with the increase of the content of CrO_3 and Na_2O and its properties are also improved. Not more than 18.2% HCl of the wt. of ZnO should be introduced in the prepn. of Zn chromates from $Na_2Cr_2O_7$. An increase of the amt. of acid increases the losses of $Na_2Cr_2O_7$ and Zn, which are carried off by the mother lye. The formation of chromates is more complete with HCl than with H_2SO_4. Zn chromates prepd. from $Na_2Cr_2O_7$ are more sol. than those prepd. from $K_2Cr_2O_7$. The smallest amts. of water should be used in washing the chromates from $Na_2Cr_2O_7$ because of their high solv. Details of the expts. are given. A. A. B.

Ferric iron compounds obtained in reducing nitrobenzene with metallic iron. IV. Mechanism of formation of precipitates having different compositions and colors. I. Riskin. *J. Applied Chem.* (U.S.S.R.) 19, 509-20(1946); cf. C.A. 41, 862e.—The presence of $FeCl_3$ in the electrolyte leads to the formation of hydrohematite. $Al(OH)_3$ is mainly responsible for the appearance of Fe_3O_4. The velocity of formation of $Fe(OH)_2$, which depends on the compn. of the medium, affects the oxidation process because it regulates the concomitant action of the other agents present in the electrolyte. When the velocity of formation of $Fe(OH)_2$ is low the ppt. contains compds. of higher degree of oxidation and hydration than when the velocity of formation of $Fe(OH)_2$ is high. All three factors acting simultaneously affect the oxidation process and in particular lead to the formation of the light yellow FeOOH, difficult to obtain by ordinary means. These factors play the same role in the oxidation of $Fe(OH)_2$ by oxidizing agents and in the oxidation of iron by nitrobenzene; in the latter case, however, the amount of $Al(OH)_3$ necessary for the formation of FeOOH is much smaller. The shades of the ppts. change without an appreciable variation in the compn. *Mechanism of oxidation.* The order of increasing difficulty with which the various oxides are obtained is Fe_3O_4, Fe_2O_3, hydrohematite, FeOOH. The type of oxide depends on the compn. of the electrolyte. The following general scheme of mechanism suggested for the oxidation is: Fe is converted to $Fe(OH)_2$, which is partially oxidized to yellow FeOOH and to $Fe(OH)_3$. $Fe(OH)_2$ reacts with $Fe(OH)_3$ to give an unstable compd. of the type $Fe(OH)_2 \cdot nFe(OH)_3$, which according to the conditions of oxidation yields either a stable Fe_3O_4 or an unstable $Fe(OH)_3$ that gives on boiling Fe_2O_3 and hydrohematite.

N. Goldowski

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CA

25

Study of crystal-optical constants of organic dyes. III. The phenomena of polymorphism of pigments under action of solvents. I. Riskin. *J. Applied Chem.* (U. S. S. R.) 16, 201 [illegible] (French summary); cf. C. A. 35, [illegible]. Dyestuffs Red B and Hansa Yellow 3R (from I. G.) can form two cryst. modifications, depending upon the solvents used. The form obtained from toluene is believed to be the principal form, while the 2nd form, obtainable from pyridine soln., is believed to be secondary. The crystals have lighter color in the 2nd modification.

G. M. Kosolapoff

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Ca

25

The crystal-optical constants of pigment dyes in relation to technical properties. I. I. Riskin and T. Zimatskaya. *J. Applied Chem.* (U. S. S. R.) 13, 1598-1601 (in French, 1601)(1940). Eleven pigments of azo, indanthrene, algol and nitro dye groups were used. All the pigments were anisotropic and had high indexes of refraction, n_g. Insol. azo dye pigments had high double refraction. The detn. of optical consts. can be used (together with other methods) for identification of the pigment. The covering power of pigments is directly proportional to n_g.

A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

3C

8-I-8

PROCESSES AND PROPERTIES INDEX

Preparation of ferric oxide by various oxidative procedures. I. I. [illegible] (J. Appl. Chem. Russ., [illegible], 11, 25—34).—$Fe(OH)_3$ free from basic sulphates or chlorides is obtained by passing air or O_2 through a solution of $FeSO_4$ or $FeCl_2$ containing Fe turnings, at 70°/4 atm., or by heating the systems with $KClO_3$ at 70° (4—5 hr.). The properties of the product vary widely, according to the conditions of the experiment (temp., [$KClO_3$], pressure, nature of anion). R. T.

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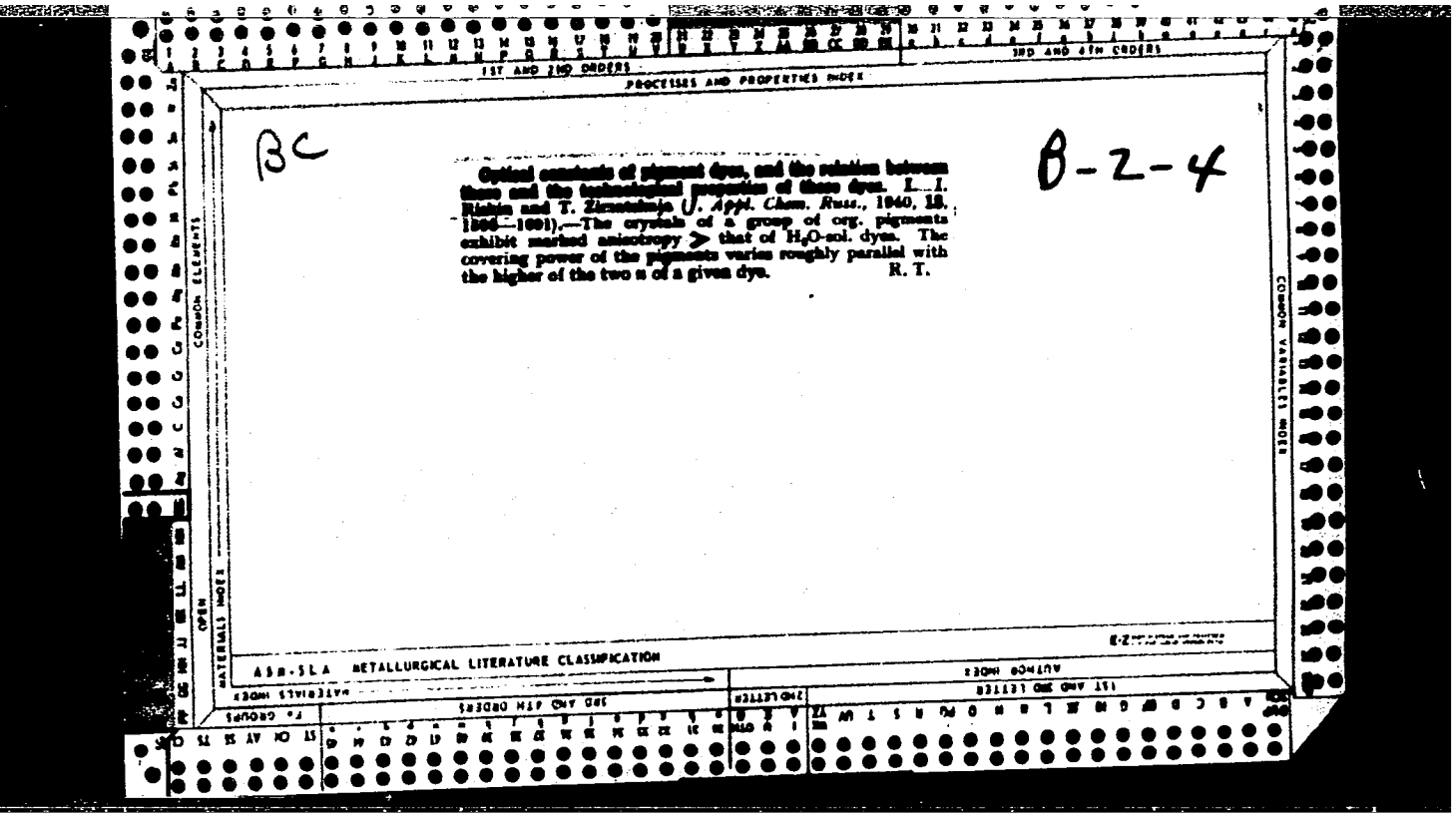
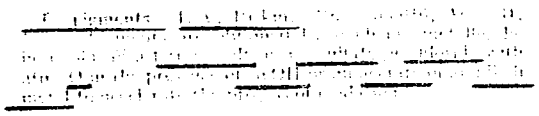


BC

B-2-4

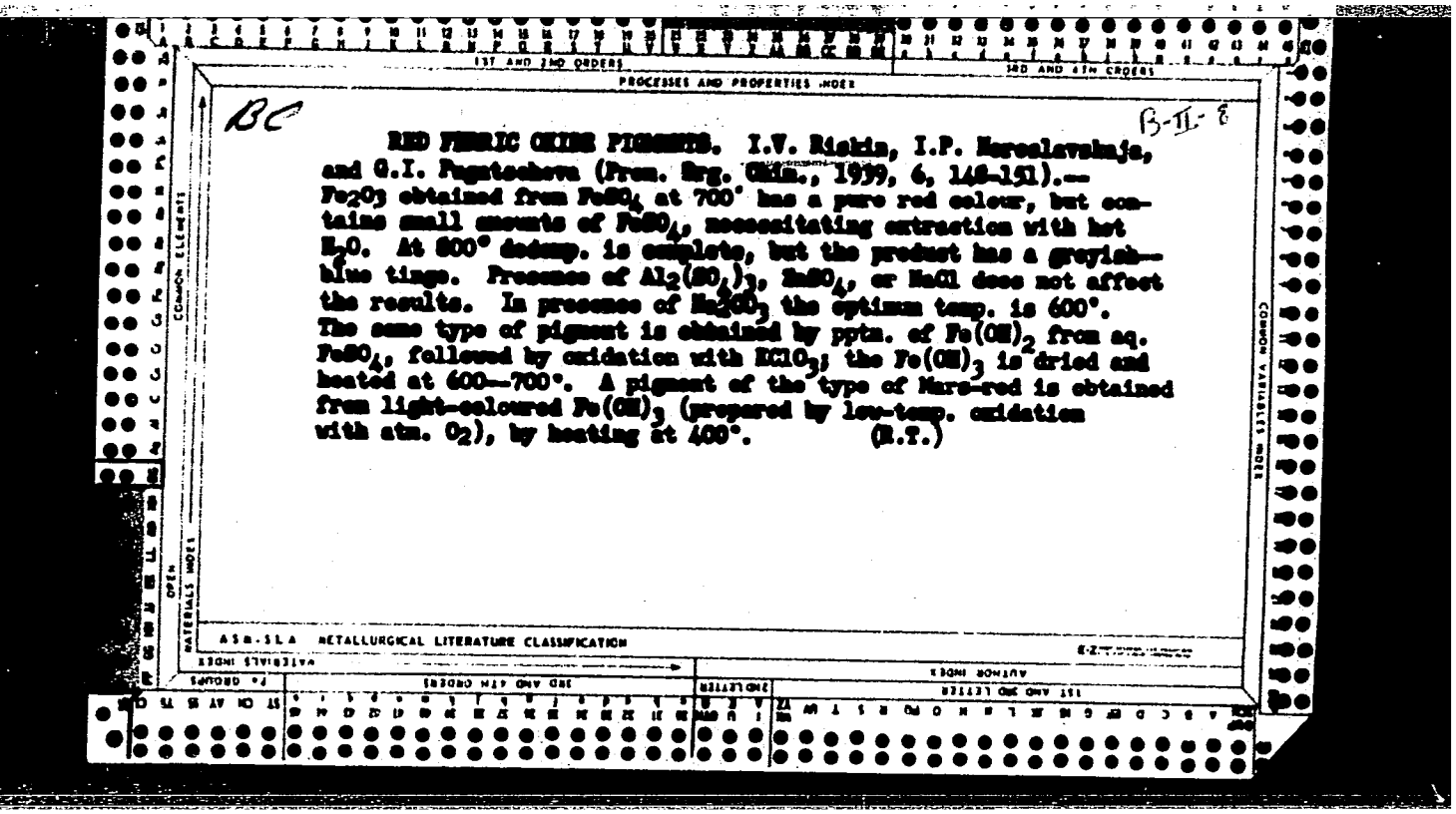
Optical constants of pigment dyes, and the relation between these and the technological properties of these dyes. I. I. Ribkin and T. Zimmermann (*J. Appl. Chem. Russ.*, 1940, **13**, 1066—1081).—The crystals of a group of org. pigments exhibit marked anisotropy > that of H_2O-sol. dyes. The covering power of the pigments varies roughly parallel with the higher of the two n of a given dye. R. T.

RISKIN, I. V.



SHAPIRO, I.S.; RISKIN, I.V.; GUREVICH, Ya.M.

[Technology of mineral pigments] Tekhnologiia mineral'nykh pigmentov. Pod red. IA.M.Gurevich. Leningrad, Red.khim.lit-ry, 1939. 271 p. (MLRA 7:2)
(Pigments)



BC

B-II-8

RED FERRIC OXIDE PIGMENTS. I.V. Rishin, I.P. Mereslavskaja, and G.I. Pugatschova (Prom. Prg. Chim., 1959, 6, 148-151).— Fe_2O_3 obtained from $FeSO_4$ at 700° has a pure red colour, but contains small amounts of $FeSO_4$, necessitating extraction with hot H_2O. At 800° dehydr. is complete, but the product has a greyish-blue tinge. Presence of $Al_2(SO_4)_3$, $ZnSO_4$, or NaCl does not affect the results. In presence of Na_2CO_3 the optimum temp. is 600°. The same type of pigment is obtained by pptn. of $Fe(OH)_2$ from aq. $FeSO_4$, followed by oxidation with $HClO_3$; the $Fe(OH)_3$ is dried and heated at 600—700°. A pigment of the type of Mars-red is obtained from light-coloured $Fe(OH)_3$ (prepared by low-temp. oxidation with atm. O_2), by heating at 400°. (R.T.)

26

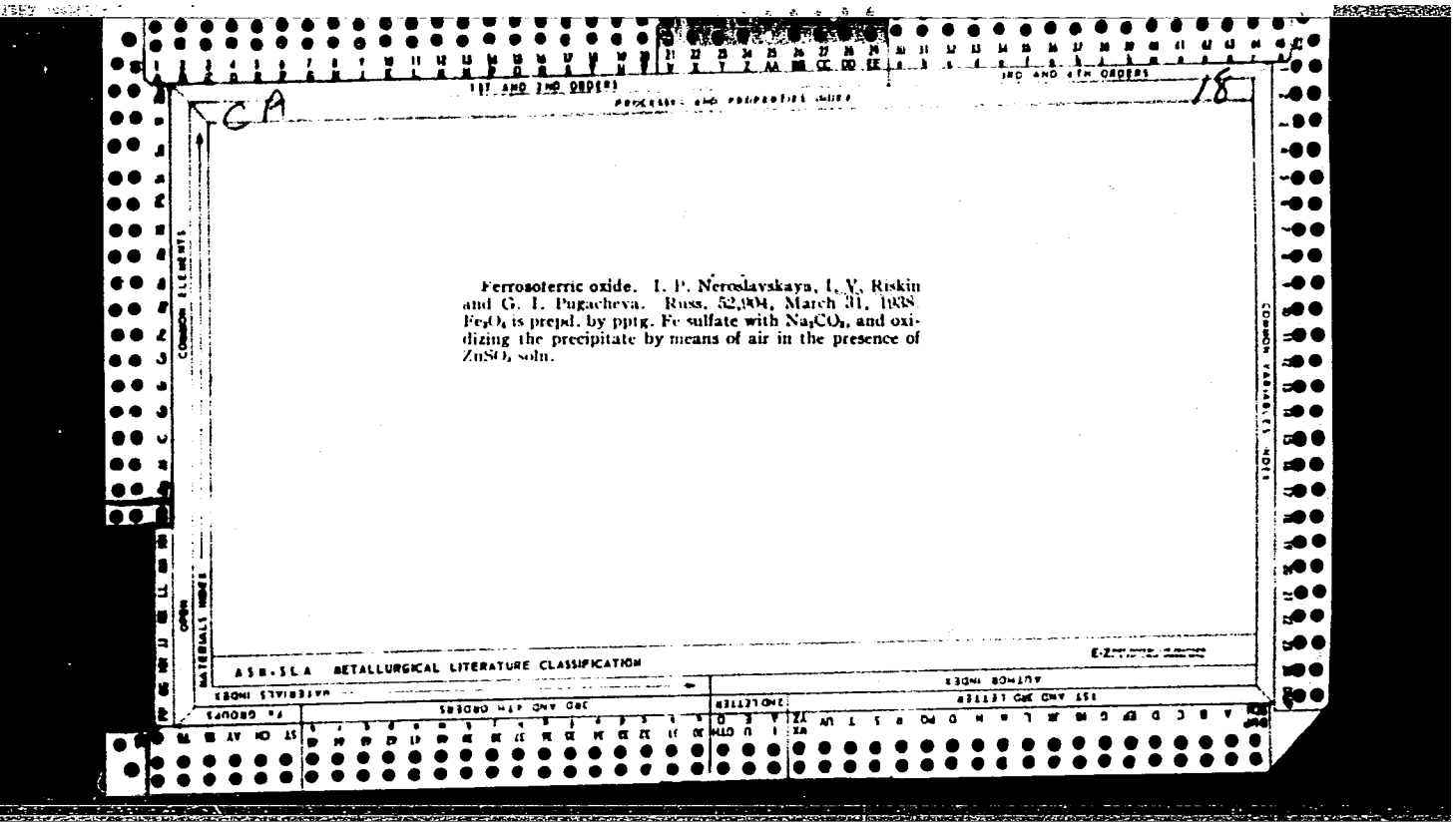
1A

Preparation of zinc chromates. I. I. V. Riskin, G. Pugacheva and O. Golyaeva. *J. Applied Chem.* (U.S.S.R.) 12, 685-96 (in German, 696) (1939). The conditions for prepg. Zn chromates were investigated. Upon a treatment with HCl or H_2SO_4, the part of ZnO goes into soln. as $ZnCl_2$ or $ZnSO_4$, and part ppts. as $4Zn(OH)_2.ZnCl_2.H_2O$ or $4Zn(OH)_2.ZnSO_4$. This distribution of ZnO depends on the amt. of acid used which should not be less than required by the ratio 5ZnO + 2HCl and 5ZnO + H_2SO_4. The reaction of ZnO with various amts. of Na_2CrO_4 or K_2CrO_4 yields Zn chromates of various compns. of general formula $4ZnO.xCrO_3.x/4K_2O.3H_2O$, where x is varying from 1 to 4 and x = 4 for tech. valuable yellow pigments. The reaction between an aq. $ZnSO_4$ or $ZnCl_2$ solns. and K_2CrO_4 or Na_2CrO_4 can be represented by the equation: $4ZnSO_4 + 6.4K_2CrO_4 + 3H_2O = 4ZnO.4CrO_3.K_2O.3H_2O + K_2Cr_2O_7 + 0.4K_2CrO_4 + 4K_2SO_4$ ($ZnCl_2$ reacts in the similar manner). In the beginning of the reaction as a result of hydrolysis, the Zn salts are transformed into basic salts and chromate into dichromate, then the basic Zn salt forms with dichromate the compd. $4ZnO.K_2O.K_2O.H_2O$. A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Red iron-oxide pigments. I. V. Riskin, I. P. Nerоslavskaya and G. I. Pugacheva. *Org.-Chem. Ind.* (U. S. S. R.) 6, 118-51(1939). See C. A. 32, [illegible]. Chas. Blanc

METALLURGICAL LITERATURE CLASSIFICATION



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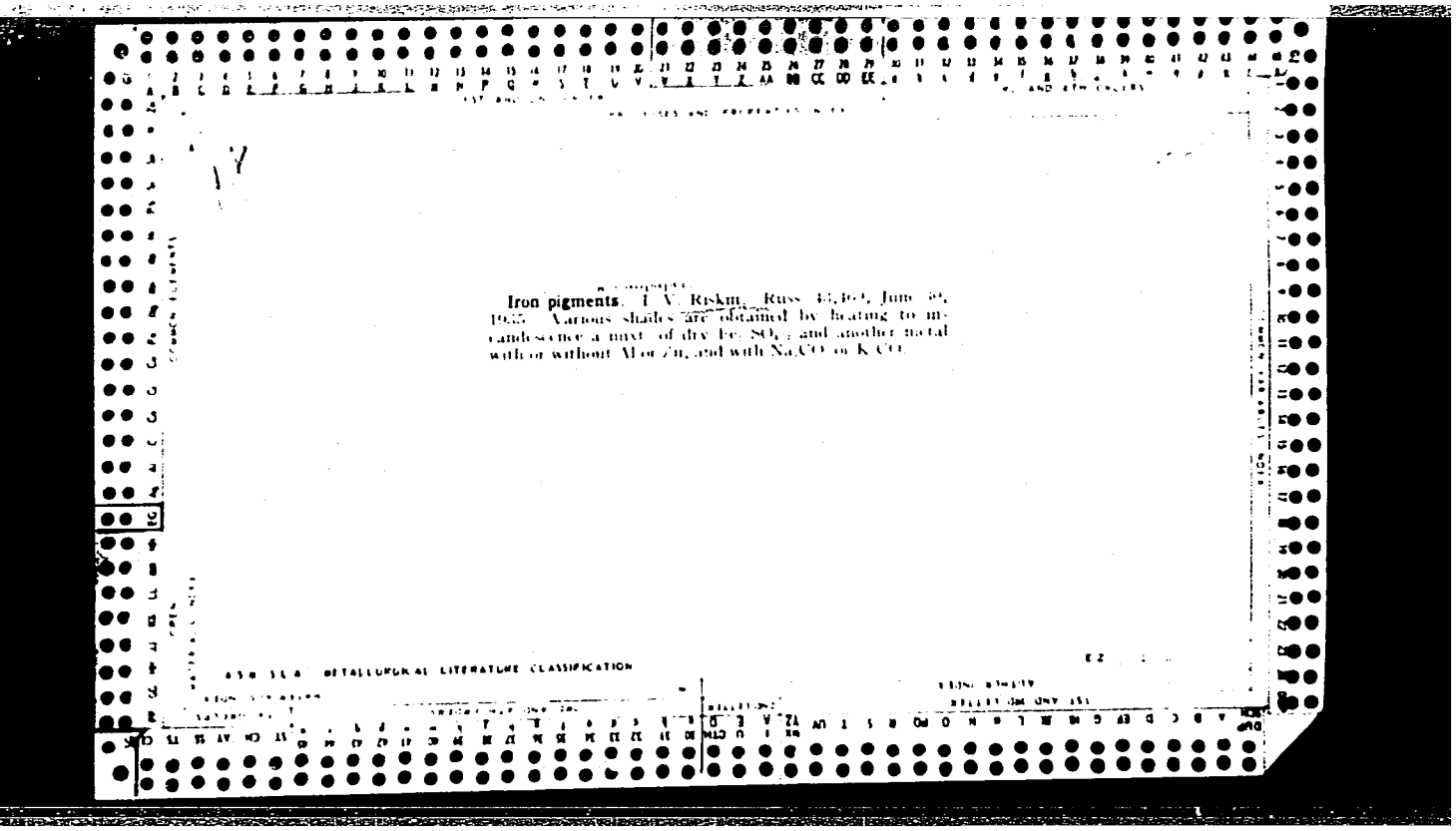
3RD AND 4TH ORDERS

CA

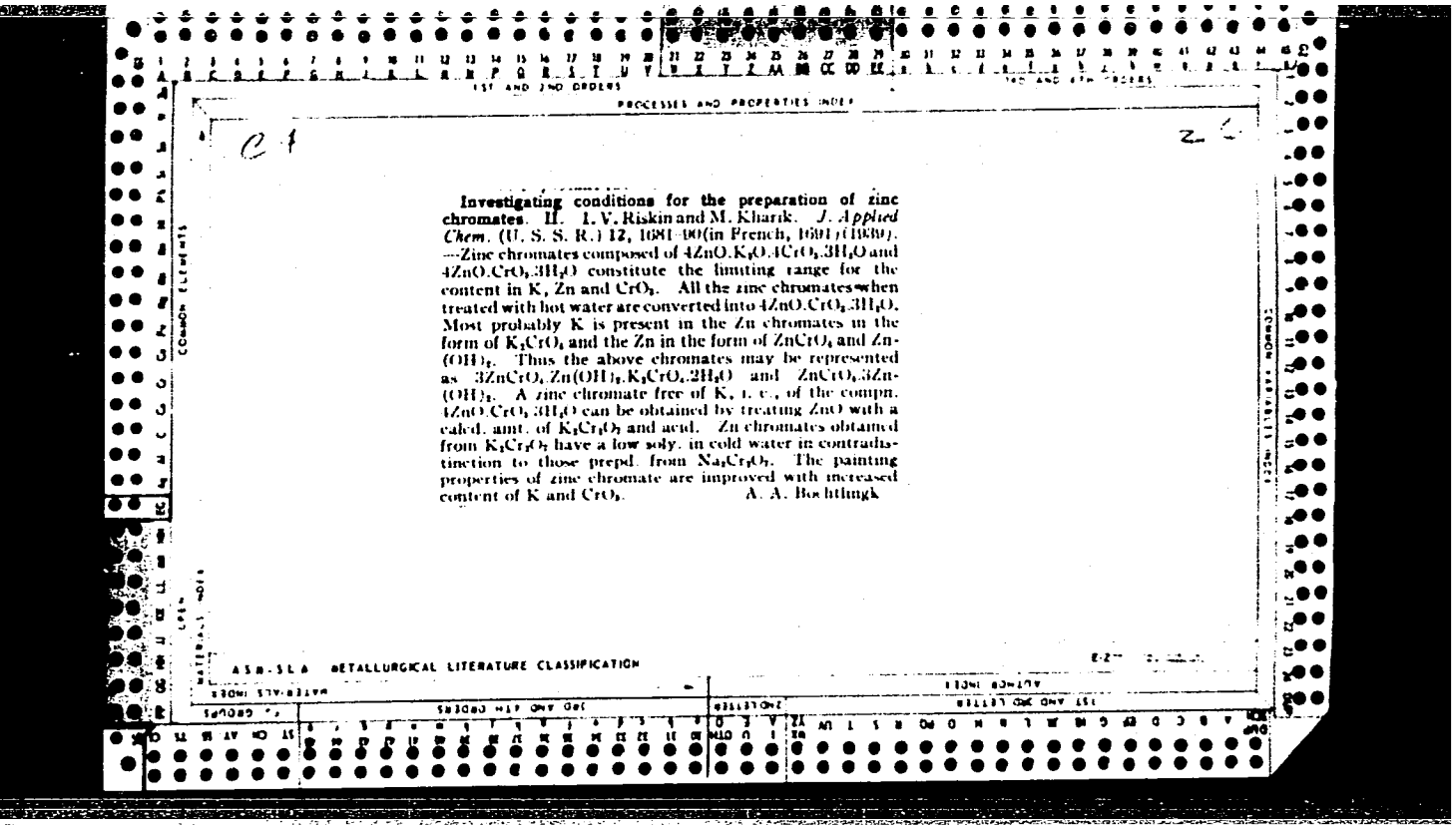
26

Accelerated washing of pigments. I. V. Riskin. *Org. Chem. Ind.* (U. S. S. R.) **5**, [illegible] (1938); *Chimie & industrie* **42**, 333.—The method consists in sending the aq. pigment suspension directly to the filter press without preliminary decantation, returning the press cake to the reaction chamber, mixing again with water, refiltering as above, and repeating this operation 3 or 4 times. A. P. C.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Iron pigments. I. V. Riskin, Russ. 83,164, June 30, 1955. Various shades are obtained by heating to incandescence a mixt. of dry $FeSO_4$ and another metal with or without Al or Zn, and with Na_2CO_3 or K_2CO_3.



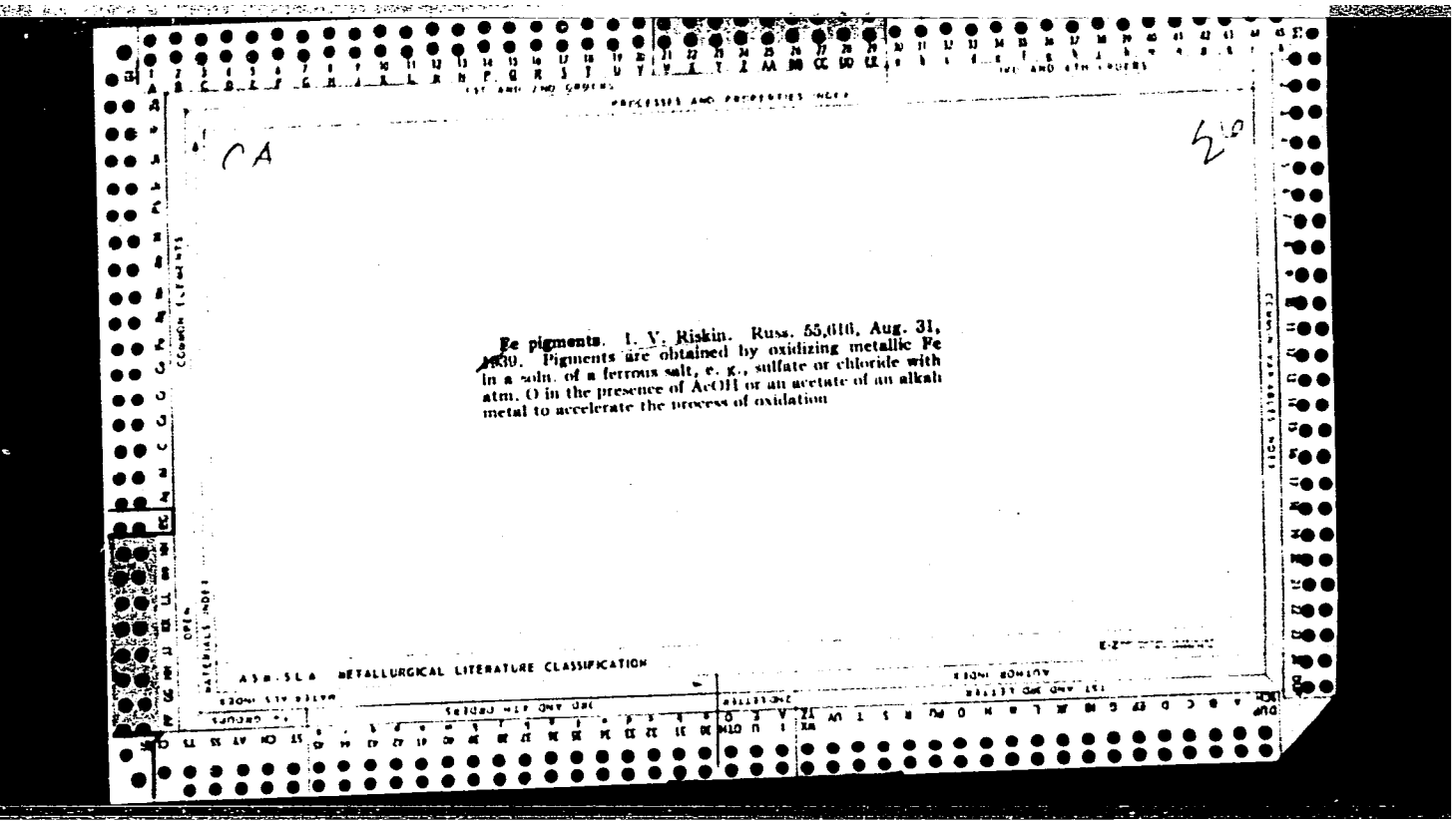
PROCESSES AND PROPERTIES INDEX

C 1

Z 2

Investigating conditions for the preparation of zinc chromates. II. I. V. Riskin and M. Kharik. *J. Applied Chem.* (U. S. S. R.) 12, 1681-90(in French, 1691)(1939).—Zinc chromates composed of $4ZnO.K_2O.4CrO_3.3H_2O$ and $4ZnO.CrO_3.3H_2O$ constitute the limiting range for the content in K, Zn and CrO_3. All the zinc chromates when treated with hot water are converted into $4ZnO.CrO_3.3H_2O$. Most probably K is present in the Zn chromates in the form of K_2CrO_4 and the Zn in the form of $ZnCrO_4$ and $Zn(OH)_2$. Thus the above chromates may be represented as $3ZnCrO_4.Zn(OH)_2.K_2CrO_4.2H_2O$ and $ZnCrO_4.3Zn(OH)_2$. A zinc chromate free of K, i. e., of the compn. $4ZnO.CrO_3.3H_2O$ can be obtained by treating ZnO with a calcd. amt. of $K_2Cr_2O_7$ and acid. Zn chromates obtained from $K_2Cr_2O_7$ have a low soly. in cold water in contradistinction to those prepd. from $Na_2Cr_2O_7$. The painting properties of zinc chromate are improved with increased content of K and CrO_3. A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

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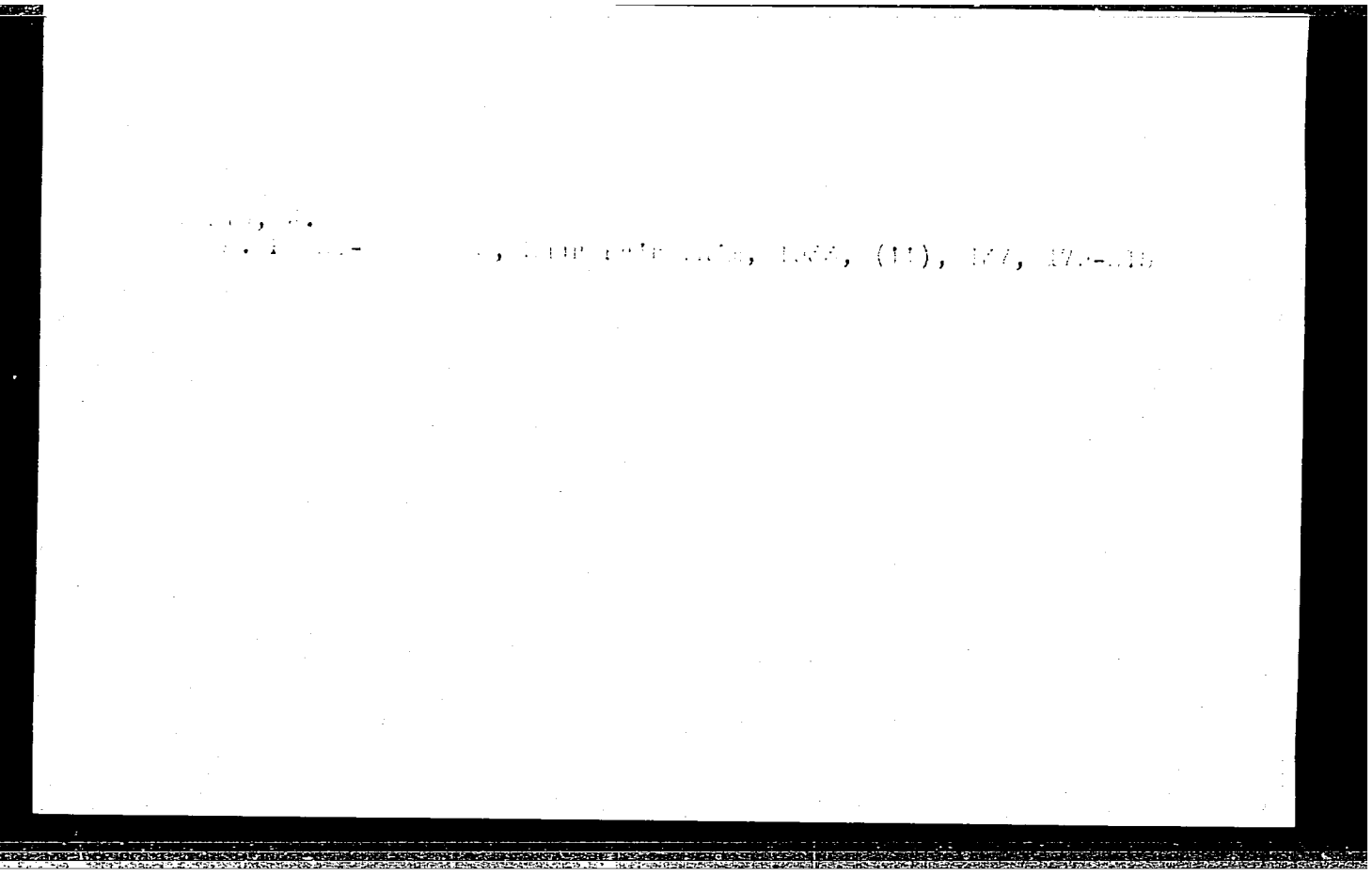
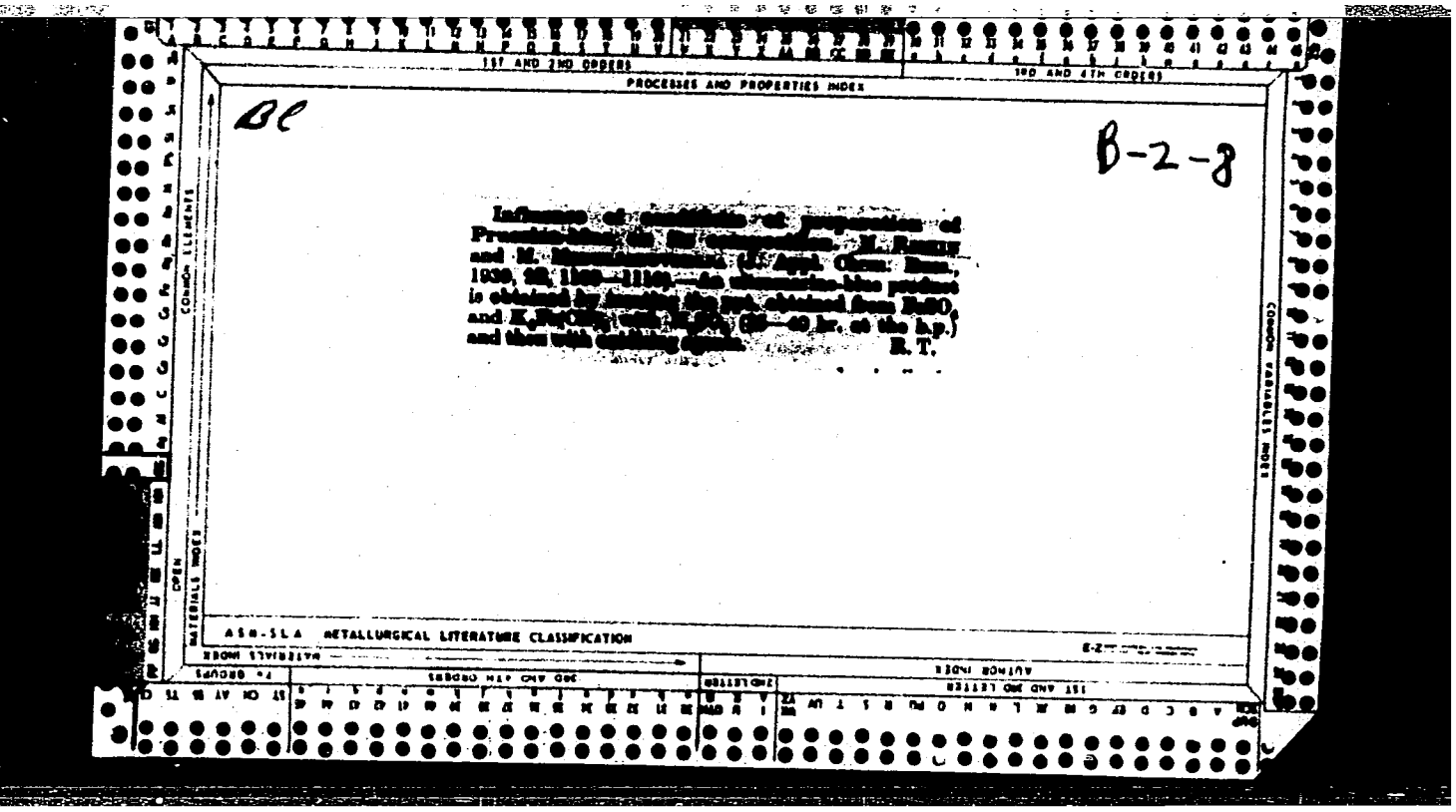
Fe pigments. I. V. Riskin. Russ. 55,016, Aug. 31, 1939. Pigments are obtained by oxidizing metallic Fe in a soln. of a ferrous salt, e. g., sulfate or chloride with atm. O in the presence of AcOH or an acetate of an alkali metal to accelerate the process of oxidation

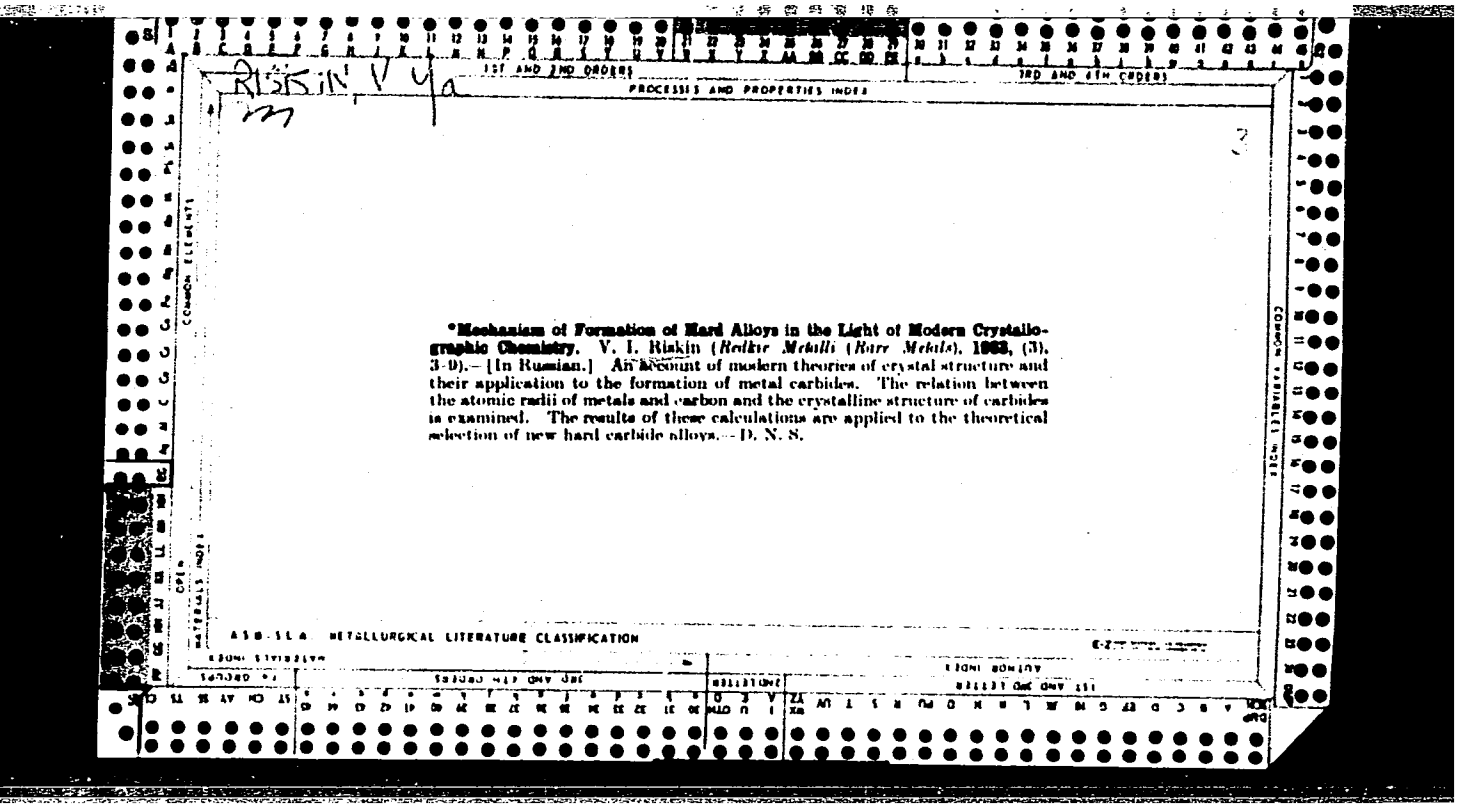
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





RISKIN, M.A.; SHPIL'BERG, B.A.; CETSKIN, L.S.

First plant testing of a flow sheet for refining sintered ore at zinc plants. TSvet. met. 37 no.12:38-43 D '64 (MIRA 18:2)



RISKIN, V Ya

1ST AND 2ND ORDERS

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3RD AND 4TH ORDERS

***Mechanism of Formation of Hard Alloys in the Light of Modern Crystallographic Chemistry.** V. I. Riskin (*Redkie Metalli* (*Rare Metals*), **1933**, (3), 3-9).—[In Russian.] An account of modern theories of crystal structure and their application to the formation of metal carbides. The relation between the atomic radii of metals and carbon and the crystalline structure of carbides is examined. The results of these calculations are applied to the theoretical selection of new hard carbide alloys.—D. N. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

RISKIN, V.Ya., kand.tekhn.nauk.

Our achievements and tasks. Zav.lab. 23 no.10:1243-1244
'57 (MIRA 10:12)

1.Rukovoditel' gruppy eksperimental'nogo tsekha Moskovskogo kombinata tverdykh splavov.
(Metallurgy)

AUTHOR: Riskin, V. Ya. 32-11-58/60

TITLE: On the Control of Quality in the Production of Hard Alloys (O kontrole kachestva pri proizvodstve tverdykh splavov).

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp. 1395-1395 (USSR).

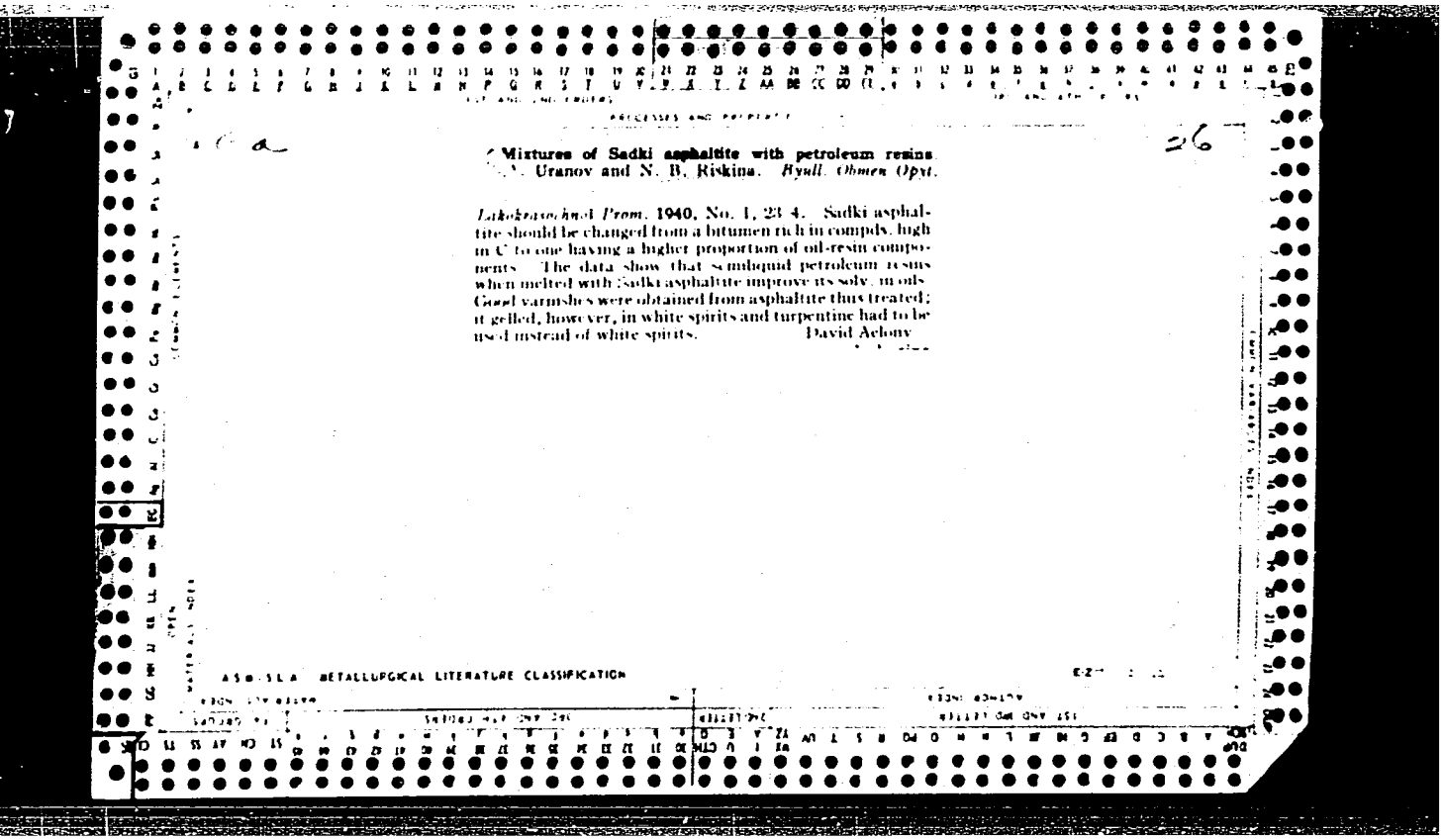
ABSTRACT: The present paper deals with the organization of control in the course of production - in particular with respect to the production of carbide in which the presence of W_2C - carbide components in pure WC-carbide may lead to faults in production. The carbon content in the mixture of carbon and tungsten, which is used for the production of carbide, is determined after crushing the mixture in a special crushing device. A control sample is burned in a closed can with the activators (of which it is said here that they are not precisely described) in a special apparatus, a "Kombustron" by means of induction heating. The tungsten carbide obtained is examined as to its content of carbonic gas and carbon, and this is done by the weight method. In order to find out whether the process of carbide formation has been completed satisfactorily, the samples are investigated by the method of x-ray structural analysis. In this case an x-ray spectrometer with a Geiger counter and an electron automatic writing

Card 1/2

26

A new constant characterizing varnish asphalts S. A Uranov and N. B. Riskina. *Byull. Obmen Opyt. Lakokrasochnoi Prom.* **1940**, No. 4, 19-21. A new const. F = oils resins asphaltenes carbenes carboids is proposed. This const. is claimed to be characteristic of various bitumens and is claimed to be a measure of their usefulness in varnishes. Bitumens with F not less than 1 have better varnish properties than those having F less than 1 (and particularly if F = 0.20-0.6). Although F = 0.7-0.8 is satisfactory for natural bitumens, this value gives unsatisfactory varnishes for petroleum bitumens. D. A.

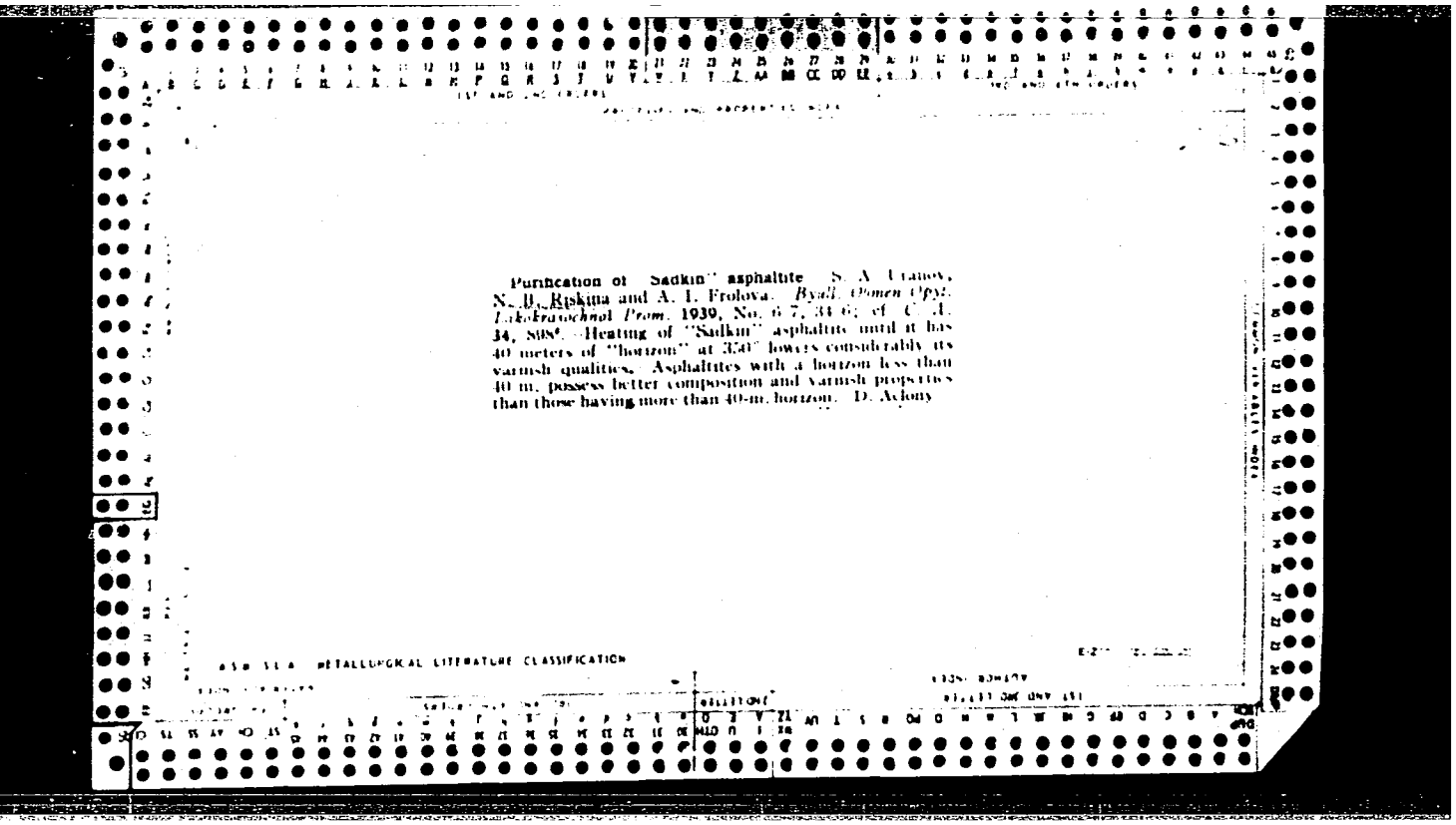
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



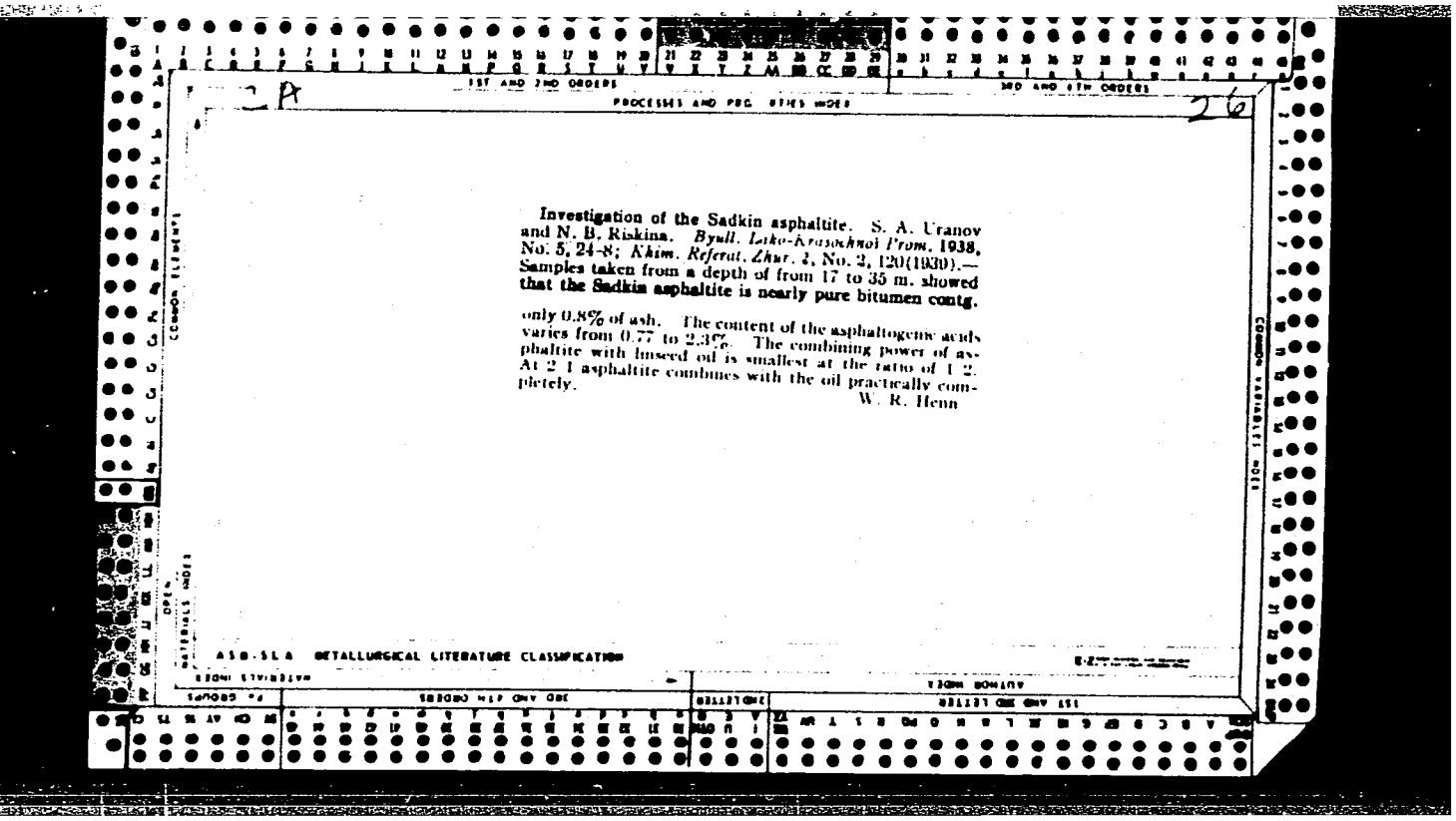
Mixtures of Sadki asphaltite with petroleum resins. V. Uranov and N. B. Riskina. *Bysll. Obmen Opyt.*

Lakokrasochnol Prom. 1940, No. 1, 23-4. Sadki asphaltite should be changed from a bitumen rich in compds. high in C to one having a higher proportion of oil-resin components. The data show that semiliquid petroleum resins when melted with Sadki asphaltite improve its solv. in oils. Good varnishes were obtained from asphaltite thus treated; it gelled, however, in white spirits and turpentine had to be used instead of white spirits. David Achony

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

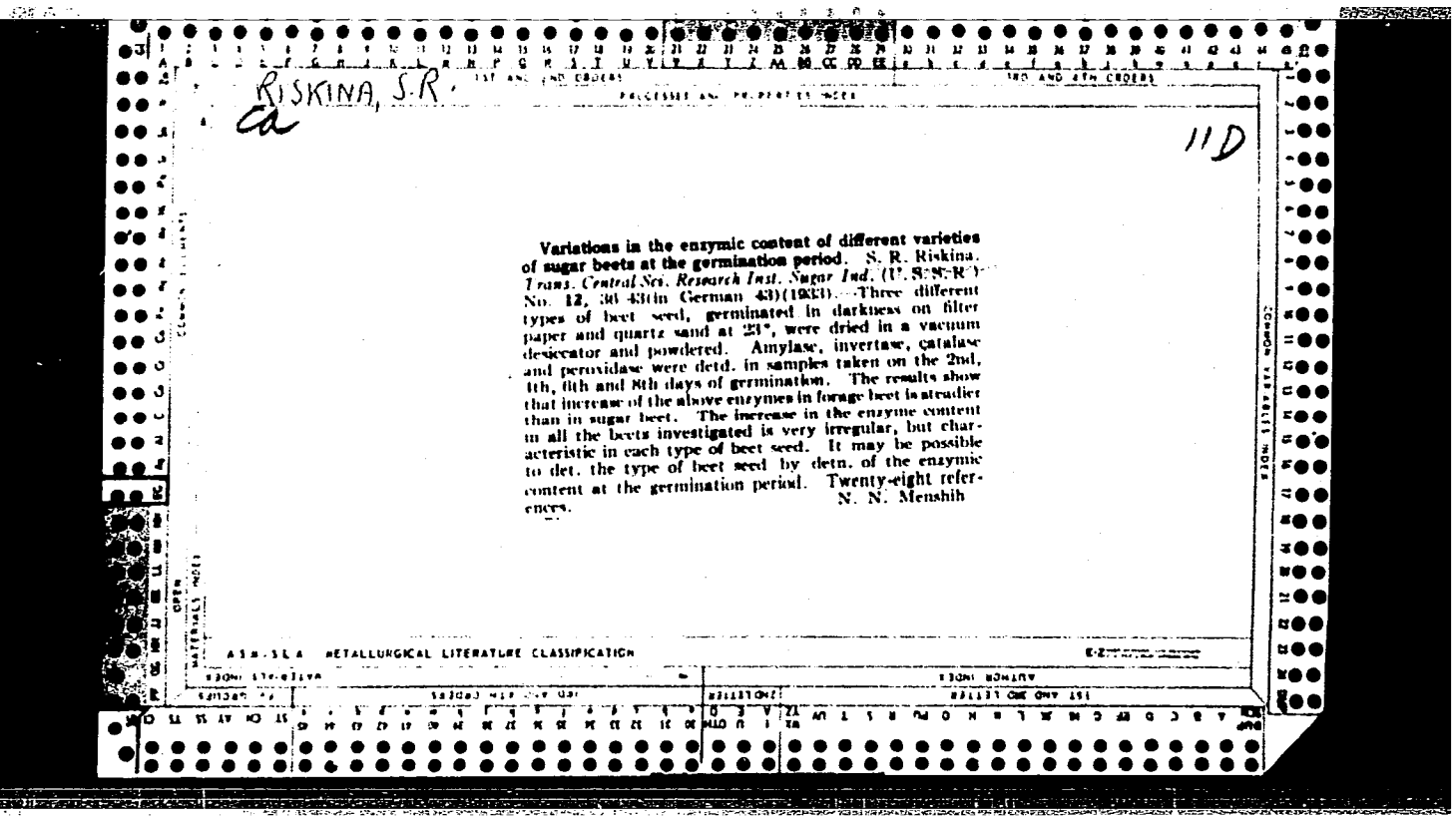


Purification of "Sadkin" asphaltite. S. A. Uranov, N. D. Riskina and A. I. Frolova. *Byull. Otmen Opyt. Lakokrasochnol Prom.* 1939, No. 6-7, 31-6; cf. C. A. 34, 808⁸. Heating of "Sadkin" asphaltite until it has 40 meters of "horizon" at 350° lowers considerably its varnish qualities. Asphaltites with a horizon less than 40 m. possess better composition and varnish properties than those having more than 40-m. horizon. D. Aclony



Investigation of the Sadkin asphaltite. S. A. Uranov and N. B. Riskina. *Byull. Leiko-Krasochnoi Prom.* 1938, No. 5, 24-8; *Khim. Referat. Zhur.* 3, No. 2, 120(1939).—Samples taken from a depth of from 17 to 35 m. showed that the Sadkin asphaltite is nearly pure bitumen contg. only 0.8% of ash. The content of the asphaltogenic acids varies from 0.77 to 2.3%. The combining power of asphaltite with linseed oil is smallest at the ratio of 1:2. At 2:1 asphaltite combines with the oil practically completely.

W. R. Henn



RISKINA, S.R.

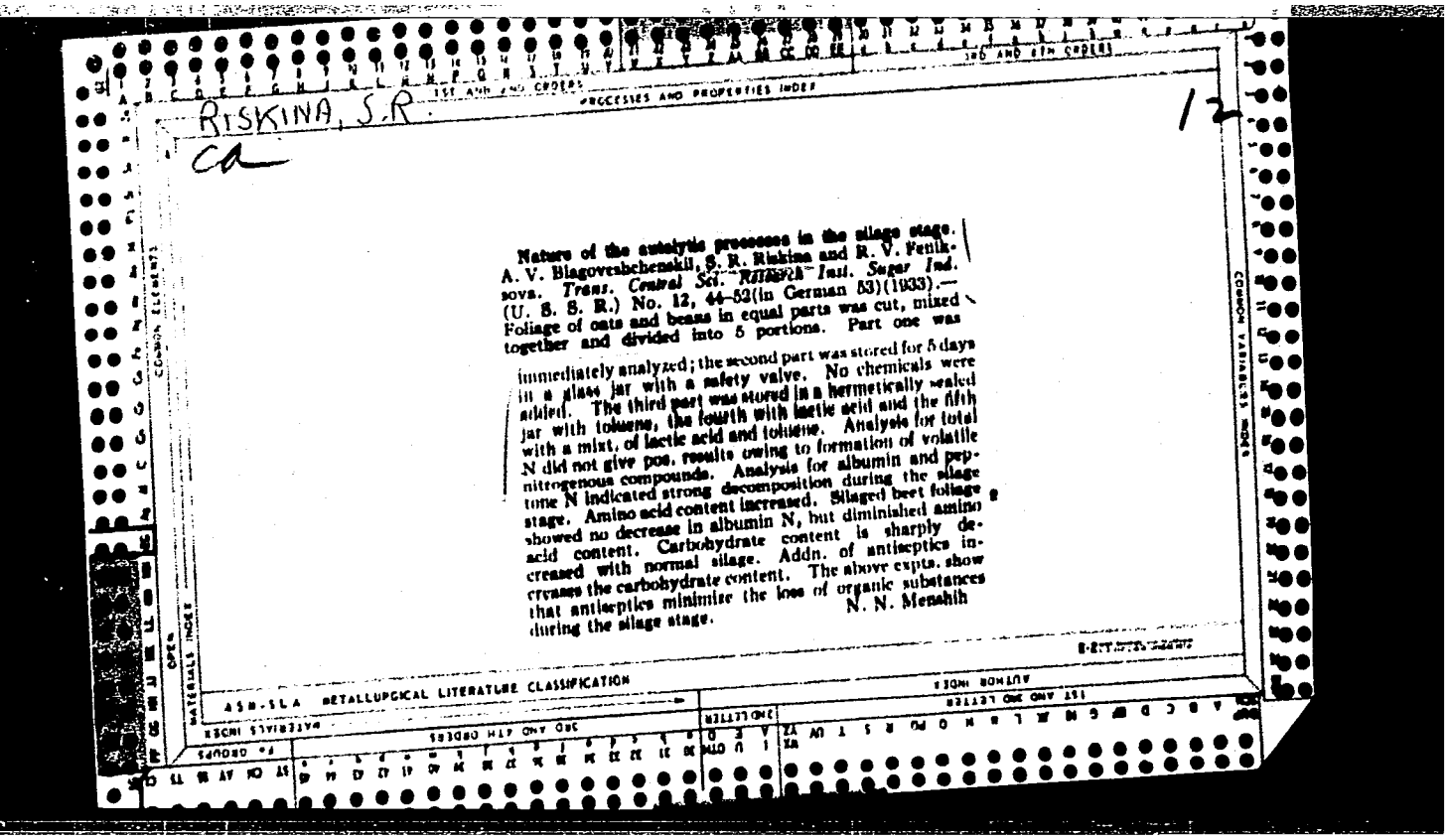
ca

11D

Variations in the enzymic content of different varieties of sugar beets at the germination period. S. R. Riskina. *Trans. Central Sci. Research Inst. Sugar Ind.* (U.S.S.R.) No. 12, 30-43(in German 43)(1933).—Three different types of beet seed, germinated in darkness on filter paper and quartz sand at 23°, were dried in a vacuum desiccator and powdered. Amylase, invertase, catalase and peroxidase were detd. in samples taken on the 2nd, 4th, 6th and 8th days of germination. The results show that increase of the above enzymes in forage beet is steadier than in sugar beet. The increase in the enzyme content in all the beets investigated is very irregular, but characteristic in each type of beet seed. It may be possible to det. the type of beet seed by detn. of the enzymic content at the germination period. Twenty-eight references.

N. N. Menshih

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



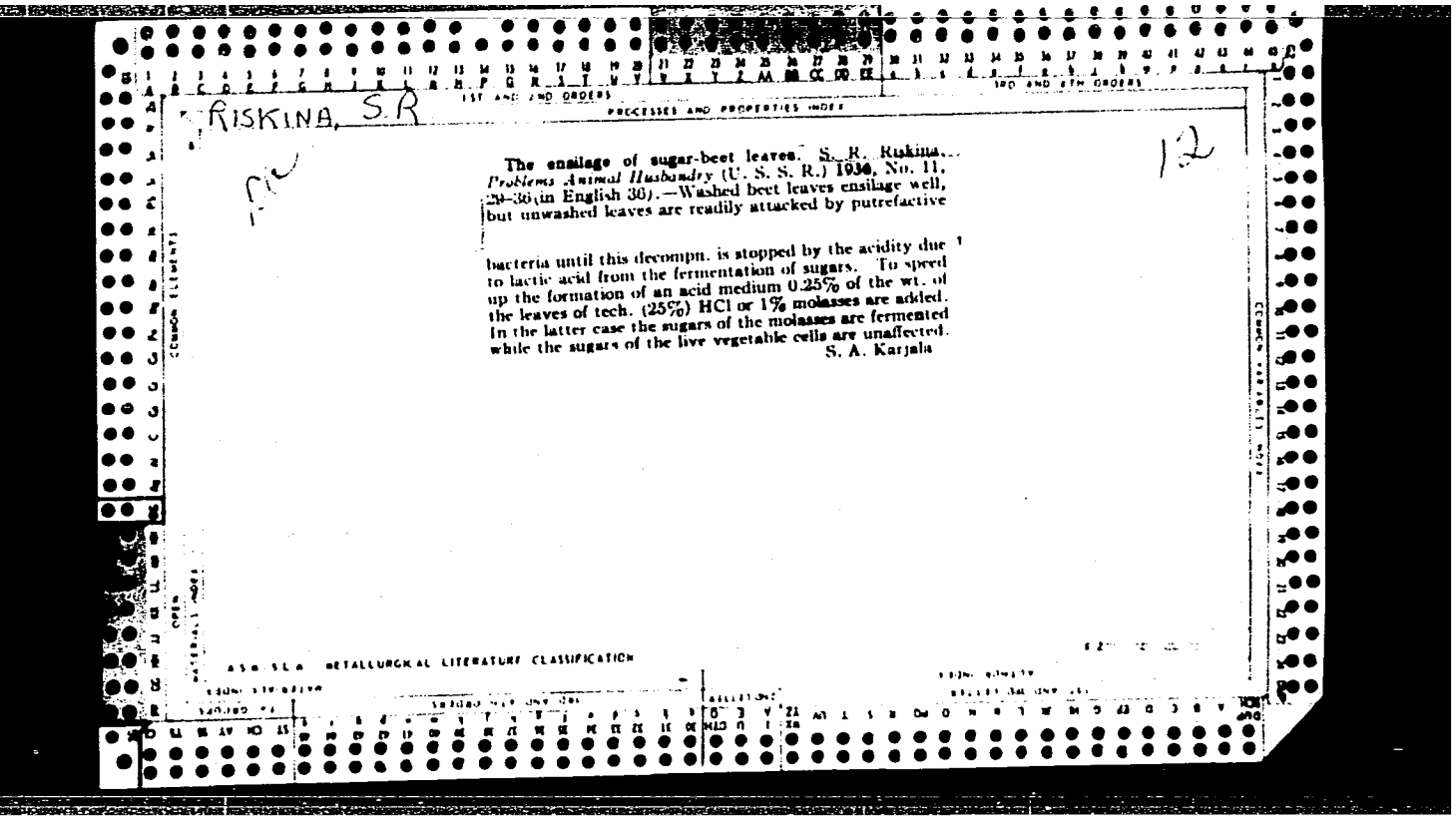
RISKINA, S.R.

12

Ca

Nature of the autolytic processes in the silage stage. A. V. Blagoveshchenskii, S. R. Riskina and R. V. Fenila-sova. *Trans. Central Sci. Research Inst. Sugar Ind.* (U. S. S. R.) No. 12, 44–52(in German 53)(1933).—Foliage of oats and beans in equal parts was cut, mixed together and divided into 5 portions. Part one was immediately analyzed; the second part was stored for 5 days in a glass jar with a safety valve. No chemicals were added. The third part was stored in a hermetically sealed jar with toluene, the fourth with lactic acid and the fifth with a mixt. of lactic acid and toluene. Analysis for total N did not give pos. results owing to formation of volatile nitrogenous compounds. Analysis for albumin and peptone N indicated strong decomposition during the silage stage. Amino acid content increased. Silaged beet foliage showed no decrease in albumin N, but diminished amino acid content. Carbohydrate content is sharply decreased with normal silage. Addn. of antiseptics increases the carbohydrate content. The above expts. show that antiseptics minimize the loss of organic substances during the silage stage.

N. N. Menshih



RISKINA, S.R

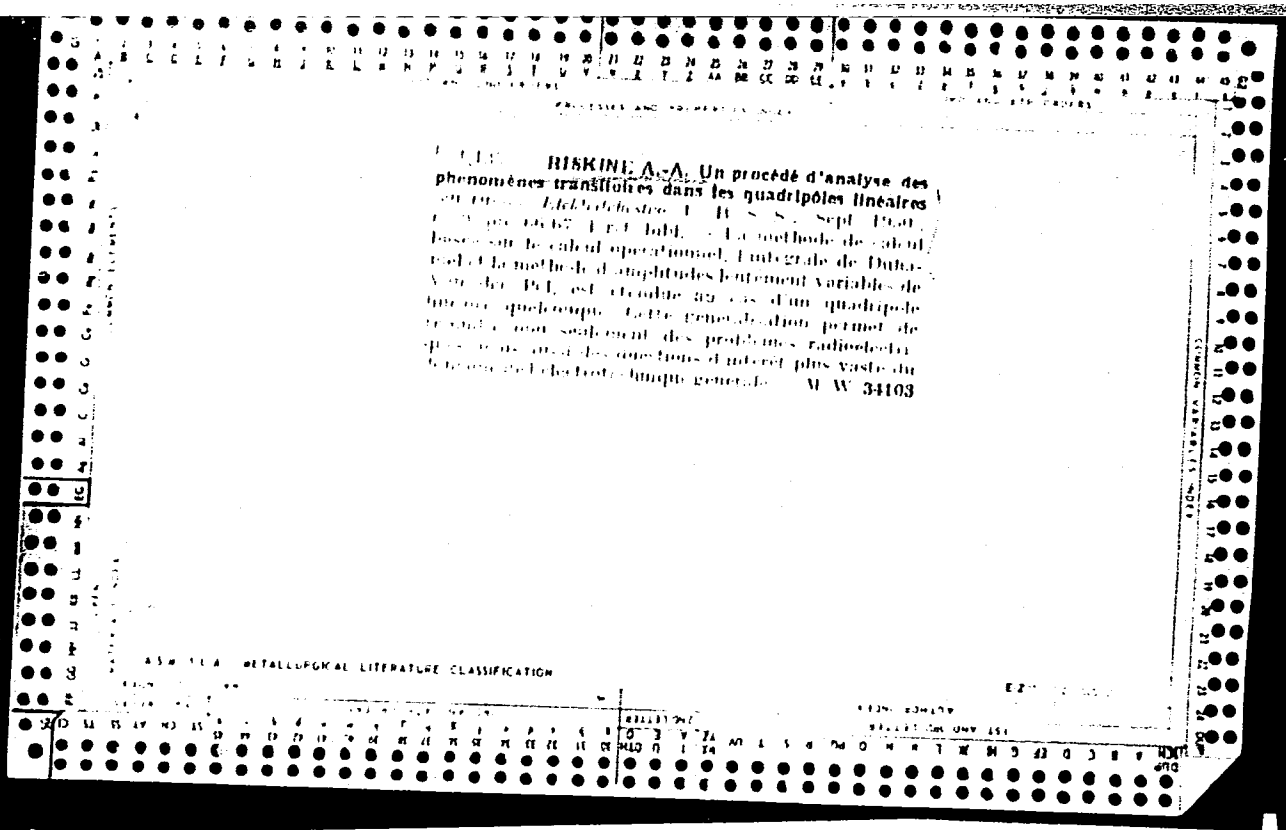
12

The ensilage of sugar-beet leaves. S. R. Riskina... *Problems Animal Husbandry* (U. S. S. R.) 1930, No. 11, 29–36 (in English 36).—Washed beet leaves ensilage well, but unwashed leaves are readily attacked by putrefactive bacteria until this decompn. is stopped by the acidity due to lactic acid from the fermentation of sugars. To speed up the formation of an acid medium 0.25% of the wt. of the leaves of tech. (25%) HCl or 1% molasses are added. In the latter case the sugars of the molasses are fermented while the sugars of the live vegetable cells are unaffected.

S. A. Karjala

NEMCHINOV, Vladimir Petrovich; SHUKHARDIN, S.V., otv. red.; RISKINA-RYSKO, S.Ya., red.

[Expansion of coal mining techniques; effect of technical progress on the development of methods of coal breaking in mines] Razvitie tekhniki dobychi uglia: vliianie tekhnicheskogo progressa na razvitie sposobov razrusheniia uglia v shakhtakh. Moskva, Nauka, 1965. 212 p. (MIRA 18:12)



RISKIN, A.-A. Un procédé d'analyse des phenomènes transitoires dans les quadripôles linéaires

[illegible] MW 34103

[illegible] METALLURGICAL LITERATURE CLASSIFICATION

HERMANN, Bela, dr.; IZSAK, Tibor, dr.; SZENTESZKY, Ilona, dr.; BENCZE, Gyula, dr.; RISKO, Rezso, dr.

Determination of vital capacity in bronchial asthma between [illegible] and in diseases of the cardiovascular and respiratory systems following application of atropine. Orv. hetil. 96:492-494 1 May 55.

1. A Gyulai Megyei Korhaz Belgyogyaszati Ostalyanak (foorvos: Hermann, Bela dr.) kozlemenye.

(RESPIRATION,
vital capacity in asthma & cardiovascular & resp. dis., eff. of atropine.)
(ASTHMA, physiology,
vital capacity, eff. of atropine.)
(CARDIOVASCULAR DISEASES, physiology,
vital capacity, eff. of atropine.)
(RESPIRATORY TRACT, diseases,
vital capacity in, eff. of atropine.)
(ATROPINE, effects,
on vital capacity in asthma & cardiovascular & resp. dis.)

RISKO, Tibor; VARGA, Laszlo

Significance of radiological symptoms in the therapy of psoas abscess. Magy. radiol. 9 no.4:220-224 Dec 57.

1. Az Allami Fodor Jozsef Tbc Gyogyintezet (igazgato-foorvos: Risko Tibor) kozlemenye.
(MUSCLES, PSOAS, abscess
diag., x-ray (Hun))

EXCERPTA MEDICA Sec 15 Vol 12/12 Chest Dis. DEC 59

2809. RESULTS OF THE COSTO-VERTEBROTOMY-SPONDYLODESIS OPERATION (CVS OPERATION) - Costo-vertebratomia-spondylodesis műtéteink eredményei - Riskó T. and Novoszel T. Állami Fodor József Tbc. Gyógyint., Budapest - ORV.HETIL. 1959, 100/13 (466-472) Illus. 9

Between 1953 and 1956, CVS operations were carried out in 103 patients with tuberculous spondylitis. On the basis of their experience, the authors recommend operative evacuation of the foci followed immediately, or after a short interval, by spondylodesis. It is stated that the conditions of survival are better for the extrafocally than for the intrafocally grafted strips of bone and, therefore, spondylodesis is to be preferred to corpodesis. The moment the operation is performed is an important element. Emphasis is laid on the responsibility which the orthopaedic surgeon shoulders when he treats suppurating, sequestrating processes with spondylodesis only, instead of with evacuation of the foci. By doing so, he lowers the chance of subsequent formation of a block vertebra after evacuation of the foci, which at a later stage becomes unavoidable anyhow. A report is given of the results of operation 2-5 yr. later; in 76% of the cases the abscess shadow had disappeared and in 57% of the cases a block vertebra was formed during the observation period. The importance of the time element is stressed: in 31 patients whose cases have been reported in 1956, there has been further improvement in the course of the last 2 yr. The complications of the operation are concisely discussed. (IX. 15, 19)

959. COMBINED OPERATION OF SPONDYLITIS TUBERCULOSA THORACALIS - Über die kombinierte Operation des Spondylitis tuberculosa thoracalis - Riskó T. and Deák P. Staatl. 'Fodor József' Tuberk. Heilanst., Budapest - SCHWEIZ. Z. TUBERK. 1957, 14/3 (193-204) Tables 6 Illus. 8

The authors combine the vertebrotomy of Kastert with the grafting operation (spondylodesis). Results on 37 cases. (XV, 9*)

RISKO, Tibor, dr.

Certain problems related with surgical therapy of semi-malignant tumors of the bone localized on the lower extremities. Orv. hetil. 102 no.18:827-830 30 Ap '61.

1. Allami Fodor Jozsef Tbc Gyogyintezet, I Sebeszeti osztaly.

(LEG neopl)

RISKO, Tibor, dr.

General diagnostic problems of chronic spinal osteomyelitis in adults. Orv. hetil. 106 no.47:2233-2234 21 N '65.

1. All. Fodor Jozsef Tbc Gyogyintezet, I. Sebeszeti Osztaly.

HEVER, Odon, dr.; RISKO, Tibor, dr.; DARVAS, Jeno, dr.

Concentrations of streptomycin in some blood and in cold abscesses. Tuberkulozis 12 no.12:271-274 D '59.

1. Az All. Fodor Jozsef Tbc Gyogyintezet (igazgato-foorvos: Sebok Lorand dr.) Laboratoriumanak (foorvos: Hever Odon dr.), I. Sebeszeti osztalyanak (foorvos: Risko Tibor dr.) es Chinoin Gyogyszer es Vegyeszeti Termekek gyara Mikrobiologiai Laboratoriumanak (osztalyvezeto: Darvas Jeno dr.) kozlemenye.
(STREPTOMYCIN metab)
(TUBERCULOSIS metab)

RISKO, Tibor, dr.; LISZKA, Viktor, dr.

Problems in the therapy of tuberculosis of the hip and knee joints by arthroplasty. Tuberk. kerdesei 9 no.5:229-234 Oct 56.

1. Az Allami Fodor Jozsef Tbc. Gyogyintezet, Budapest, (igazgato-foorvos: Risko, Tibor, dr.) kozlemenye.
(TUBERCULOSIS, OSTEOARTICULAR, surg.
hip & knee, arthroplasty (Hun))

RISKO, Tibor, Dr.; NOVOSZEL, Tibor, Dr.

Our surgical results with costo-vertebratomy-spondylodesis. Orv. hetil. 100 no.13:466-472 29 Mar 59.

1. Az Allami Fodor Jozsef Tbc. Gyogyintezet, Budapest (igazgato-foorvos: Sebok Lorand dr.) I. sz. Sebeszeti Osztalyanak (foorvos: Risko Tibor dr.) kozlemenye.
(TUBERCULOSIS, SPINAL, surg.
costo-vertebratomy-spondylodesis, technics ' results (Hun))

RISKO, Tibor, dr.

The significance of radiological changes of the knee in tuberculous coxitis in children. Gyermekgyogyaszat 5 no.11: 346-352 Nov 54.

1. Az Allami Fodor Jozsef TBC gyogyintezet (Budapest) kozlemenye.
(KNEE, radiography
in tuberc. coxitis in child.)
(TUBERCULOSIS, OSTEOARTICULAR, in inf. & child)
hip, knee x-ray manifest. in)

RISKO TIBOR, Dr.; NOVOSZEL, T. Dr.

Abductive resection in surgery of the hip. Magy. sebeszet 10 no.2 p.
133-137 Apr-June 57.

1. Az Allami Fodor Jazsef Tbc. Gyogyintezet (Budapest) kozlemenye
Igazgato-foorvos: Risko Tibor dr.
(HIP, surg.
abductive resection, technic (Hun))

RISKO, Tibor, Dr.

Surgery of coxitis tuberculosa in adults. Tuberkulozis 10 no.7-9:145-148 July-Sept 57.

1. Az Allami Fodor Jozsef Tbc. Gyogyintezet, Budapest (igazgato foorvos: Risko Tibor dr.) kozlemenye.
(TUBERCULOSIS, OSTEOARTICULAR, surg.
hip, indic. & technics (Hun))

RISKO, Ilona, dr.

Parturition in women with bone tuberculosis. Orv.hetil. 101 no.41:1450-1452 9 O '60.

1. Allami Fodor Jozsef Tbc. Gyogyintezet, I. sz. Sebeszeti Osztaly.
(TUBERCULOSIS OSTEOARTICULAR in pregn)

RISKO, Tibor, dr.; technikai munkatars: STOLZ, Laszlo, dr.

A device for bone biopsy. Orv.hetil. 102 no.35:1663-1664 27 Ag '61.

1. Allami Fodor Jozef TBC Gyogyintezet, I. Sebeszeti Osztaly.

(BONE AND BONES pathol) (BIOPSY equip & supply)

RISKOL, E. L.

[illegible]

The shape and spacial orientation of dark nebulae

Astronomical Journal
Vol. 27, No. 6, 1950, p.3[illegible]

From: Bull. of R. Trans. [illegible], Vol. 2, Sept. 1951, p.7

YUGOSLAVIA/Human and Animal Physiology. Metabolism. T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36092,

Author : Nikolic, V.P., Nikolic, B.P , Pavlovic, D , Riskovic, A.
Inst :
Title : Comparative Studies of Serum Proteins in Some Domestic and Laboratory Animals.

Orig Pub: Glasnik biol. sek Hrvatsko prirodosl. drustvo, 1953 (1955), Ser 2B, 7, 284-286.

Abstract: The total content of albumin, gamma-globulins (I), and various protein fractions (microelectro-phoresis) was determined in fresh nonhemolyzed serum (from 15-30 animals) of cows, sheep, horses, pigs, dogs, cats and rabbits. The content of total protein in the serum of all the investigated animals was in accord with data in the literature Individual and species variations were

Card : 1/3

noted to a considerable degree in the protein fractions content. The value of I obtained by the turbidity method of Popper and Erg as compared with those obtained by the method of electrophoresis were nearly the same for sera of horses, dogs, and cats; smaller for sera of pigs and cows by the first method, greater for sera of pigs and cows by the first method, greater for sera of sheep and rabbits. The values of I, when determined by the method of Kunkel, were much lower in all the investigated animals, with the exception of cows, than in man The comparison of data for I obtained by the method of precipitation by $CdSO_4$, as modified by the authors, and by the coagulation test of Wattman, with the data obtained by electrophoresis, demonstrated that the data of the first two methods depended not only on the content of the

YUGOSLAVIA/Human and Animal Physiology. Metabolism. T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36092.

various protein fraction in the serum but also on the physico-chemical condition and the colloido-chemical stability of the whole system of serum protein.

Card : 3/3

RISLO, T.; LISZKA, V.

Problems of the therapy of knee and hip tuberculosis by mobile joint. Acta med. hung. 11 no.1:73-85 1957.

1. Staatliche Fodor Jozsef tbc. Heilanstalt, Budapest.
(TUBERCULOSIS, OSTEOARTICULAR, surg.
hip & knee, arthroplasty, value of various methods (Ger))

HEICZINGER, J.; ROSENTHAL, S.; RISKO, T.

On the relationship between the dispensary and the district physician in the prevention of tuberculosis. Orv. hetil. 105 no.35:1671-1672 Ag 30 '64.

L 19722-65 EEO-2/FSS-2/EWT(1)/EWA(d)/EWA/EED-2/FCS(k) AFWL
ACCESSION NR: AP5000724 S/0018/64/000/012/0061/0063

AUTHOR: Risman, I. (Lieutenant Colonel)

TITLE: Artillery fire control with the aid of an airplane

SOURCE: Voyenny*y vestnik, no. 12, 1964, 61-63

TOPIC TAGS: artillery, artillery fire control, fire control instrument, aerial fire control, aerial spotting

ABSTRACT: The organization of reconnaissance and artillery spotting by aerial observation requires that the adjustment time be reduced to a minimum. Gross errors occur in determination of azimuth corrections when adjusting with sequential controls relative to compass points on a grid. The author therefore proposes adjustment with sequential controls relative to compass points by the use of a grid on the fire control instrument. This method will provide more accurate corrections (azimuth of 0-01 and range of 0-10 meters) and will take only one half to one third as much time. The additional 2 minutes for preparation of the fire control instrument, as now indicated in the Kurs strel'b (Handbook for Firing), is not required. A four-quartered grid (division value of 2 mm = 50 m, marked at 100 m intervals) is made on tracing paper or celluloid and fastened to the lower part of the instrument. The grid orientation relative to compass points must coincide with the fire

Card 1/2

L 19722-65
ACCESSION NR: AP5000724

control instrument's orientation. The center of the grid is considered to be the center of the target. Fire positions and estimated range and azimuth corrections are entered on the instrument, as are the target coordinates as received from the aircraft navigator. Range and declination from the base azimuth are determined. After the fire command is given and while the crews are loading, the range straightedge is fixed and a line is drawn across it, opposite the fire position. The mobile sector slide is fixed at the zero indicator of the immobile sector. Data received from the navigator during adjustment provides the center point of the bursts which is entered on the grid and by shifting the range straightedge to that point the correction is determined. Azimuth corrections are read directly from the angular scale opposite the indicator slide. Orig. art. has: 1 table and 1 drawing.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MS

NO REF SOV: 000 OTHER: 000

Card 2/2

RISMAN, I., kapitan.

Training mortar. Voen.vest. 36 no.5:70-71 My '56. (MLRA 9:8)
(Russia--Army--Artillery) (Ballistic instruments)

RISMAN, N.B. [Rysman, N.B.]; BAKALOR, M. Yu.; SHKOL'NIKOVA, N.B. [Shkol'nykova, N.B.]; GRABOVSKIY, P.A. [Hrabovs'kyi, P.A.]

Fusion sealing of seams and cuts on articles made from nylon fabrics. Leh. prom. no.2:51-52 Ap-Je '64 (MIRA 17:7)

ANDRONOVICI, Gh.; BADENSKI, A.; OLARIU, Tr.; IONESCU, R.; JONESCU, M.; RISNICU, V.

Epidemiological studies of an epidemic of dysentery in a community. Rev. igiena microb. epidem., Bucur. 1:26-40 Jan-Mar 55.

1. Lucrare efectuata in cadrul Sanepidului central al Capitalei.
(DYSENTERY, epidemiol.
epidemic in school in Rumania, etiol., develop. & prev. measures.

GOROKH, A.V.; KLOKOTINA, L.I.; RISPEL', K.N.

Behavior of molybdenite and its dissociation products on heating. Dokl. AN SSSR 158 no.5:1183-1185 O '64. (MIRA 17:10)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii. Predstavleno akademikom N.V.Belovym.

MOROZOV, A.N.; CHIRKOV, N.A.; FIRSOV, S.G.; KRASHCHENKO, L.S.; Prinimali uchastiye: RISPEL', K.N.; VAYNSHTEYN, O.Ya.; BUSHUYEV, A.P.; SNEZHKO, B.Ya.; MEL'NICHENKO, A.A.; ZHURAVLEV, V.M.

Alloying open-hearth steel with exothermic ferroalloys in the ladle. Stal' 25 no.5:412-414 My '65. (MIRA 18:6)

RISPEL', K.N.; DUBROVIN, A.S.

Exothermic materials with chromium and manganese for alloying steel in the ladle. Stal' 23 no.4:315-320 Ap '63. (MIRA 16:4)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.
(Steel—Metallurgy) (Iron-chromium-mangenese alloys)

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22095

Author : A.J. Risol', L.M. Utevskiy
Inst : Not given
Title : The duplication of the metal structure by aid of titanium films.

Orig Pub : Zavod. Laboratoriya, 1956, 22, No 5, 567-569

Abstract : This is a description of a method of obtaining a single-stage replica of the surface of metals by way of dusting technically pure (99%) Titanium on the sample under examination. A conical basket made of W-wire with a diameter of 0.5 m/m and a spread of 2 m/m between coils is used as a vaporizer. Ti-films possess a high chemical stability and a mechanical endurance. The disadvantage of Ti-replica lies in the possibility of a deposit of impurities on some parts of the electronic microscope, possibly resulting from the evaporation of Ti during the examination of the sample.

Card 1/1 -31-

MASAGUTOV, R.M.; GIMAYEV, R.N.; DANILOVA, R.A.; RISOV, B. a.; OLEFIR, N.A.

Test run of a high-temperature catalytic cracking unit using vacuum gas oil as the raw stock. Trudy BashNII NP no.7:29-35 '64. (MIRA 17:9)

MASAGUTOV, R.M.; BERG, G.A.; RISOV, B.Ya.; KONDARKOV, D.I.; GOLENKOVA, M.V.; KULINICH, G.M.; SKUNDINA, L.Ya.

Using gases of hydroforming processes. Trudy BashNII NP no.6:5-10 '63.

Using hydrogenation to purify a hydroforming product of catalysis. Ibid.:10-14 (MIRA 17:5)

RISOVANNYY, V. A. Cand Med Sci -- (diss) "On the problem of the pathogenesis and treatment of after-effects of intestinal obstructions." Rostov-on-Don, 1958. 18 pp (Rostov-on-Don State Medd Inst), 200 copies (KL, 52-58, 108)

SPITSYN, I.N., konstruktor; MIKHALEV, V.D., konstruktor; RISOVANNYY, A.I., konstruktor

Mechanical loader for loading bulk materials in railroad cars. Suggested by I.N.Spitsyn, V.D.Mikhalev, A.I.Risovannyi. Rats.i izobr.predl.v stroi. no.11:23-25 '59.
(MIRA 13:3)

1. Po materialam TSentral'nogo byuro tekhnicheskoy informatsii Permskogo sovnarkhoza.
(Loading and unloading) (Building materials--Transportation)

KOROBTSOV, I., dotsent; RISOVICH, A., starshiy gruppovoy inzhener

Objectives in the increase of labor productivity and the overall mechanization in ship repairs. Mor. flot 22 no.5:28-29 My '62. (MIRA 15:5)

1. Odesskiy institut inzhenerov morskogo flota (for Korobtsov).
(Merchant ships--Maintenance and repair)

RISOVICH, A.I.

Experimental study of the efficiency of streamlined ribs for GTU regenerators. Inzh.-fiz.zhur. no.5:24-30 My '60. (MIRA 13:8)

1. Institut inzhenerov morskogo flota, Odessa.
(Heat exchangers--Testing)

RISOVICH, A.I., inzh.

Optimum arrangement of heating surfaces consisting of circular tubes.
Teploenergetika 9 no.2:32-35 F '62. (MIRA 15:2)

1. Odesskiy institut inzhenerov morskogo flota.
(Heat--Transmission)

82589

S/170/60/003/005/004/017
B012/B056

24.5200

AUTHOR: Risovich, A. I.

TITLE: Experimental Investigation of the Efficiency of Streamlined Ribs for Regenerators of Gas Turbine Plants

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 5, pp. 24 - 30

TEXT: The problem of using streamlined ribs is investigated here. For the experiments described here, two series of rib profiles shown in Fig. 1 were developed: with a thickened nose and laminar profiles. In both cases, a smooth and continuous flow round the respective body was warranted. The calculations carried out showed that the efficiency of the rib round which the flow leads has a distinctly marked maximum. The position of the maximum is determined by the chord of the profile, the rate of the coolant, and the heat transfer coefficient of the rib metal. The investigation was carried out for the purpose of determining the thermal and aerodynamic characteristics of streamlined rib-packets, on the basis of which the most favorable form of ribs may be selected.

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Experimental Investigation of the Efficiency of Streamlined Ribs for Regenerators of Gas Turbine Plants

S/170/60/003/005/004/017
B012/B056

The experiments were carried out by the method of local thermal model-tests. Here, the method of dividing the convective heat exchange and the passage of heat through the rib metal was used. The scheme of the experimental arrangement is shown in Fig. 2 and described. The experiments are briefly described. The model ribs were made from polystyrene. Fig. 3 shows the evaluations of experiments in the form of $Nu_f/Pr^{1/3} = f(Re_f \cdot 10^{-3})$. A comparison of the rib-types investigated gave the following results: 1) Within the range of Re = 6000 ÷ 15,000, all rib-variants have the same efficiency. 2) With $Re_f < 6000$, the rib with a laminar profile is considerably less efficient. 3) With $Re_f > 15,000$, the profile with a thickened nose and a corridor-shaped distribution has the most favorable characteristics. 4) The use of artificial turbolizers deteriorates the characteristics of the ribs. Summarizingly, it is found that within the range of Re_f = 3000 ÷ 20,000, the ribs with a thickened nose and a checkerboardlike distribution are to be preferred. The

Card 2/3

82589

Experimental Investigation of the Efficiency of Streamlined Ribs for Regenerators of Gas Turbine Plants

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B012/B056

results obtained here are compared in Fig. 4 with other shapes of surfaces (Refs. 3,4). It is shown that streamlined ribs have a high efficiency. Preliminary calculations showed the following: The use of streamlined ribs with a chord length of 10 mm makes it possible, in comparison with a surface with through-going plate ribs, to decrease the volume by the 2- to 2.5-fold, and the surface of the regenerator front by the 2-fold of its former size (with conditions otherwise remaining equal). In comparison to a needle-shaped surface with a rib-diameter of 1 mm, this is possible by the 1.8- and 1.5-fold, respectively. In the scheme of Fig. 2 micromanometers by MMN and TsAGI are mentioned. There are 4 figures and 4 references: 2 Soviet and 2 US.

ASSOCIATION: Institut inzhenerov morskogo flota, g. Odessa (Institute of Engineers of the Merchant Marine, Odessa)

Card 3/3

KOROBTSOV, I., prepodavatel'; RISOVICH, A., prepodavatel'

Ways of increasing the effectiveness of the over-all mechanization and automatization of ship repairing. Mor.flot 21 no.1:35-38 Ja '61. (MIRA 14:6)

1. Kafedra organizatsii i tekhnologii sudoremonta Odesskogo instituta inzhenerov morskogo flota.
(Ships--Maintenance and repair)
(Automatic control)

RISOVICH, A.I., inzh.

Heat transfer and resistance of bundles of streamlined profiles and their effectiveness as elements of the finned surface of regenerators in gas turbine installations. Izv.vys. ucheb.zav.; energ. 3 no.3:110-118 Mr '60. (MIRA 13:3)

1. Odesskiy institut inzhenerov morskogo flota. Predstavlena kafedroy sudovykh silovykh ustanovok.
(Gas turbines)

PODGORNIK, Anton, dr. inz., docent; RISTOVSKI, Petar, inz.; KOSEC, Ladislav, inz.

Relations between the structural phenomena, parameters of basic cells, and hardening in the aging process of aluminum alloy with copper. Rud met zbor no. 2:139-142 '63.

1. Oddelek za montanistiko, Askerceva ul. 20, Ljubljana.

KALINCHEV, Ye. L., inzh.; RISP, S.M., kand.tekhn.nauk

Determining the time of cooling of the product in a mold in the extrusion of plastics. Khim.mash. no.2:22-26 Mr-Ap '60. (MIRA 13:6)

(Plastics--Thermal properties)

L 27304-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP4047951 S/0020/64/158/005/1183/1185

AUTHOR: Gorokh, A.V.; Klokotina, L.I.; Rispel', K.N.

TITLE: The behavior of molybdenite and the products of its dissociation during heating

SOURCE: AN SSSR. Doklady*, v. 158, no. 5, 1964, 1183-1185, and insert facing p. 1184

TOPIC TAGS: molybdenite, molybdenum refining, sintered molybdenite, molybdenum sulfide

ABSTRACT: Five samples of powdered Balkhash molybdenite concentrate were heated for 1 to 7 hrs. at 760C and 1-37 mm Hg and the oven temperature was gradually raised to 1170-1200, 1450-1520, 1470-1550, 1540-1650, and 1500-1700C, using alundum and molybdenum crucibles, in a study of the mechanism of molybdenite thermal dissociation. The sintered products, found to be in different stages of decomposition, were investigated microscopically, chemically and with the use of x-ray structural analysis. Thermal decomposition of molybdenite to Mo_2S_3, found to be complete in a reducing atmosphere at 760 mm and 1500C, was intensified by high-vacuum at lower temperatures. The Mo_2O_3 began to dissociate at temperatures in excess of 1500C at atmospheric pressure and at 1250-1300C at 1 mm Hg. The samples melted as the Mo/S ratio approached unity, and the

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L 27304-65

ACCESSION NR: AP4047951

formation of a metallic phase of dendritic or irregular form, the final product of dissociation, was observed as the ratio reached a value of 4:3. In a high vacuum of 1×10^{-2} to 1×10^{-4} mm Hg, dissociation of Mo_2S_3 was also found to take place in the solid phase at 1100 - 1200C. Orig. art. has: 5 photomicrographs and 1 table.

ASSOCIATION: Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii (Chelyabinsk metallurgical scientific research institute)

SUBMITTED: 09May64 ENCL: 0 SUB CODE: IC, MM

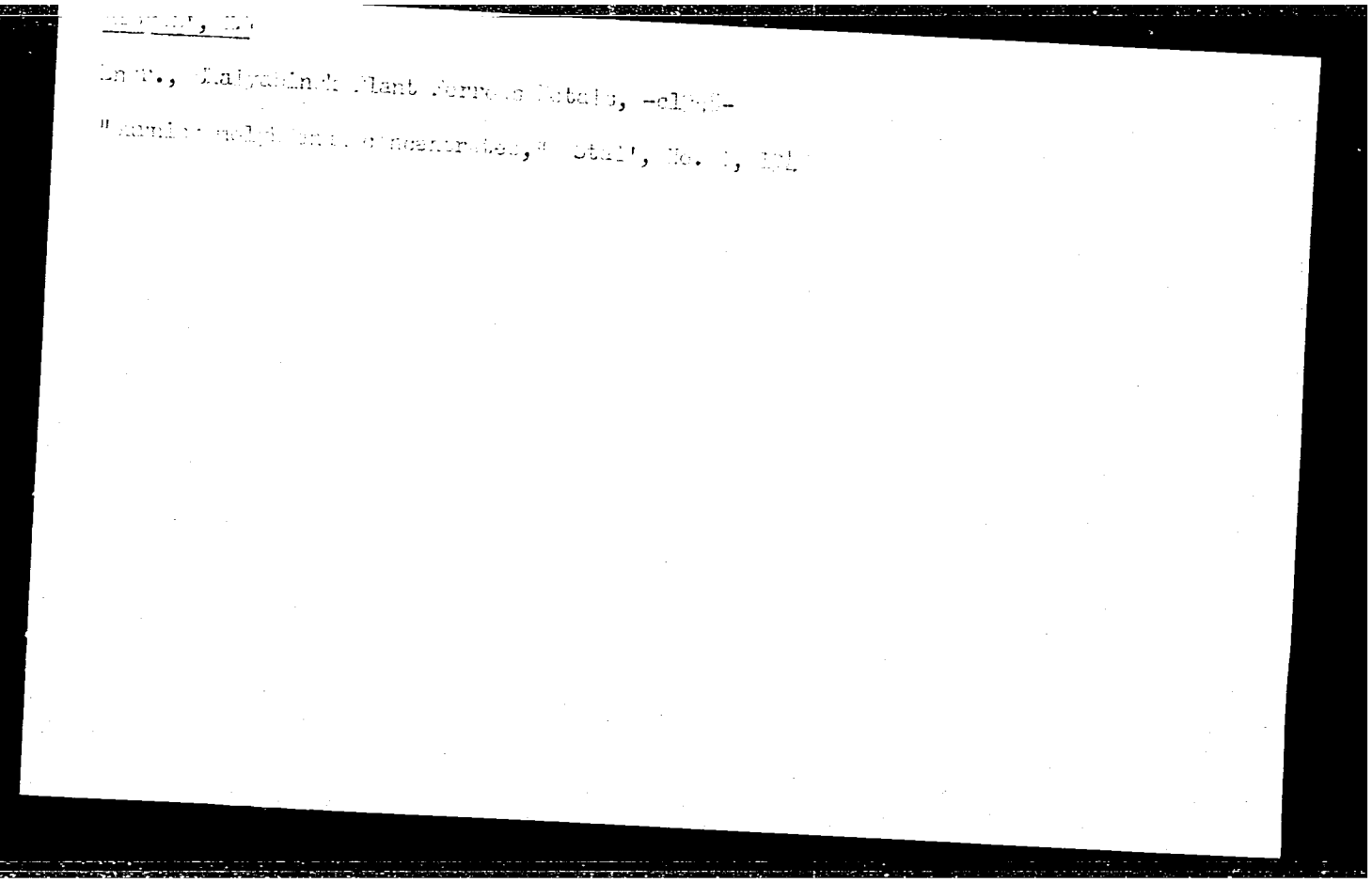
NO REF SOV: 003 OTHER: 000

Card 2/2

CHIKOV, S.A.; BUDNIKOV, I.D.; MEDVEDEV, A.P.; NISPEL', K.N.

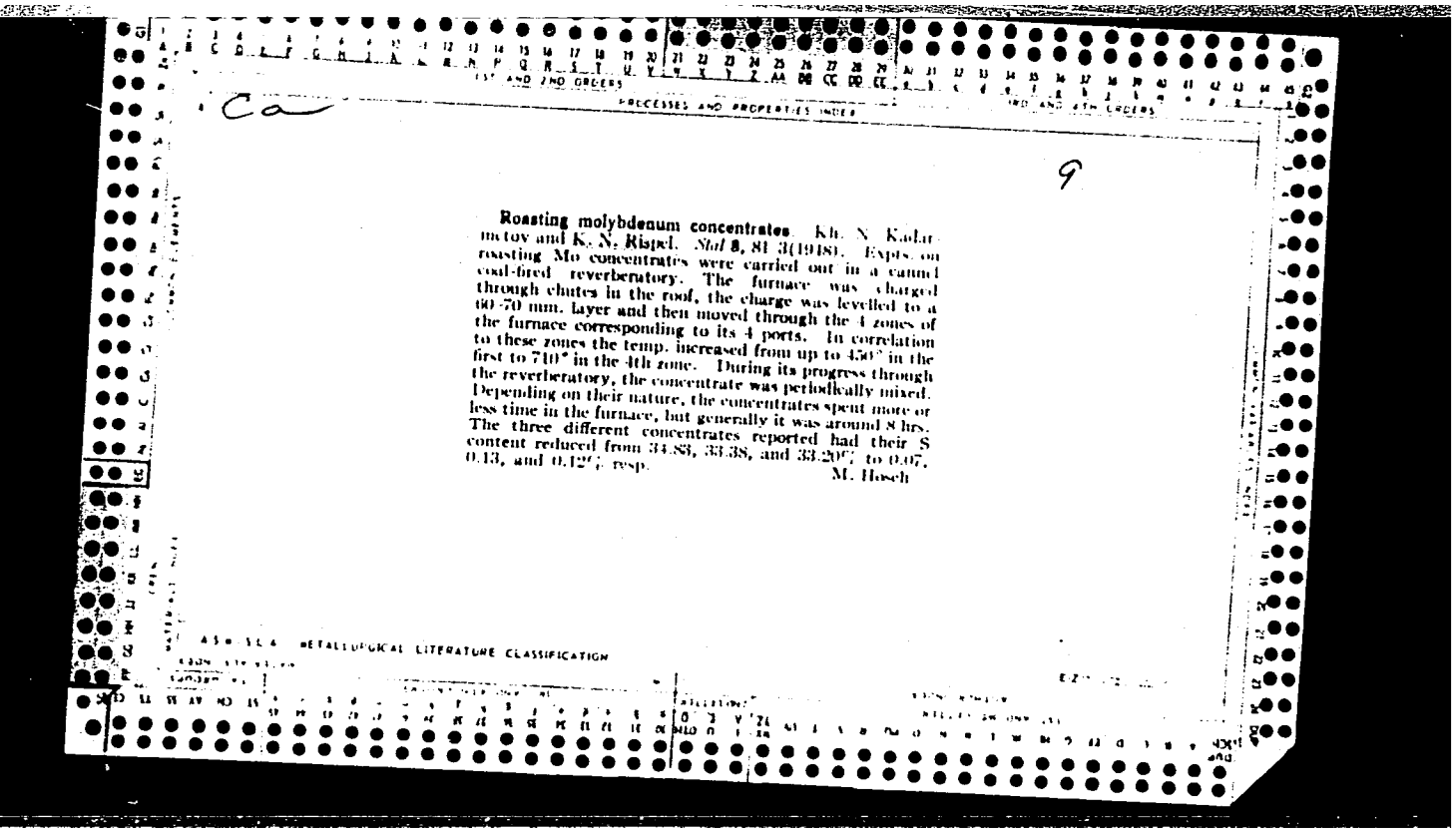
Production of 5KhNV steel with the use of briquettes and complex tungsten-containing briquets. Stal' 25 no.3:224-227 Mr '65. (MIRA 18:4)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii i Chelyabinskiy stankostroitel'nyy zavod.



RIBEL', K. N.

"Burning Molybdenum Concentrates", Stal', No 1, 1948.



Ca

9

Roasting molybdenum concentrates. Kh. N. Kadarmetov and K. N. Rispel. *Stal* **8**, 81-3(1948). Expts. on roasting Mo concentrates were carried out in a canal coal-fired reverberatory. The furnace was charged through chutes in the roof, the charge was levelled to a 60-70 mm. layer and then moved through the 4 zones of the furnace corresponding to its 4 ports. In correlation to these zones the temp. increased from up to 450° in the first to 710° in the 4th zone. During its progress through the reverberatory, the concentrate was periodically mixed. Depending on their nature, the concentrates spent more or less time in the furnace, but generally it was around 8 hrs. The three different concentrates reported had their S content reduced from 34.83, 33.38, and 33.20% to 0.07, 0.13, and 0.12%, resp.

M. Hoseh

KOPYRIN, I.A.; RAMNEV, G.G.; SMIRNOV, Yu.D.; CHERNOV, G.I.; BOGATENKOV, V.F.; BOKOV, I.I.; TSIPUNOV, A.G.; RISPEL', K.N.; AGARKOVA, N.A.; DAYKER, A.L.

Research by the Chelyabinsk Metallurgical Research Institute. Stal' 22 no.7:604,620-621,667,670 Jl '62. (MIRA 15:7)
(Metallurgical research)

[illegible], N. I.

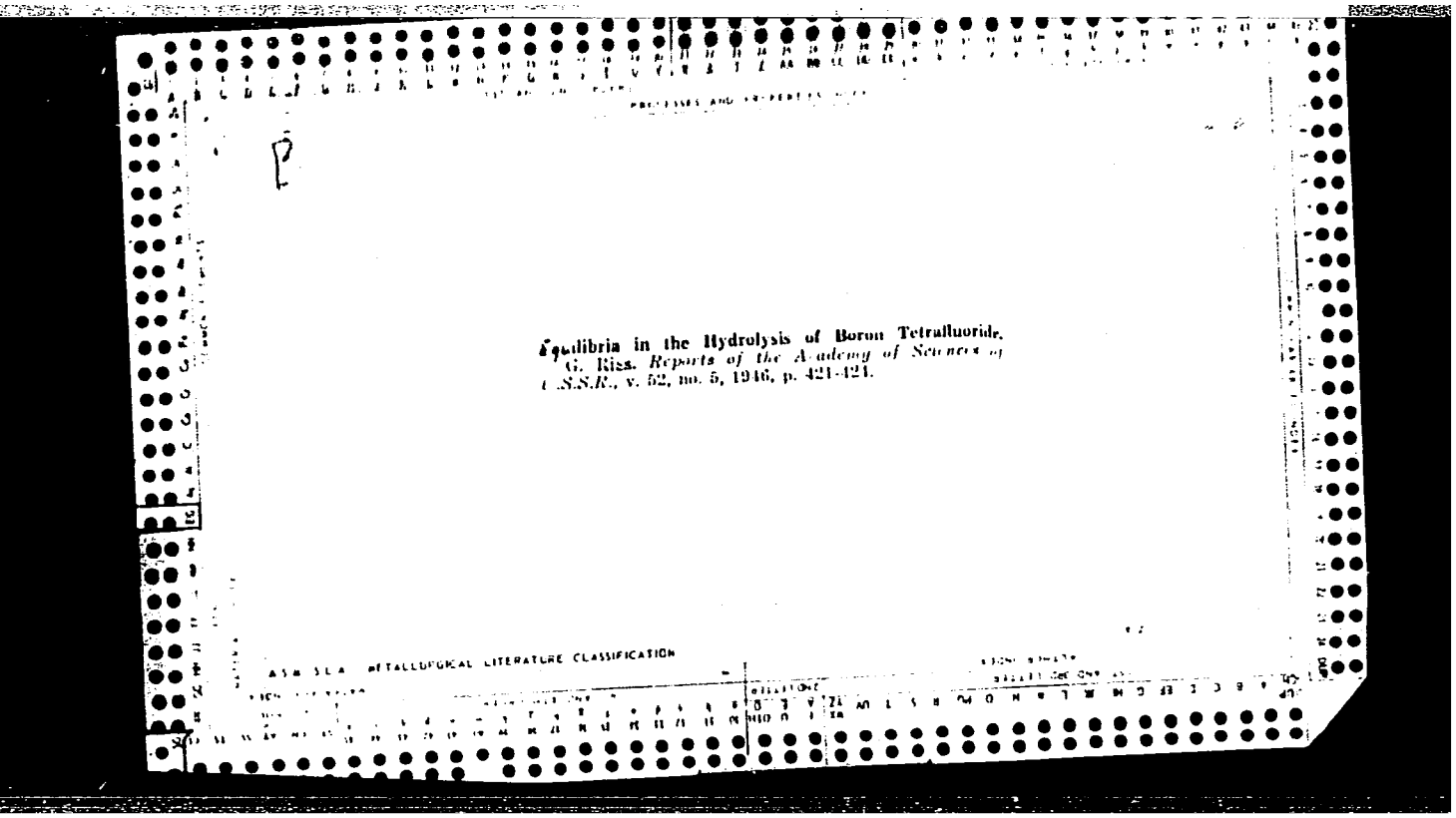
A. E. Arbuzov, V. M. Zoroastrova and N. I. Rizpolozhenskiy, About obtaining of some cyclic ethers of phosphorus acid and their properties. P. 205.

SO: Bulletin of the U.S.S.R. Academy of Sciences (Chemistry Series)
Izvestia Akad. Nauk, S.S.S.R., No.2, 1948.

RISS, F.

"On Some Basic Concepts of the General Theory of Linear Functionals" Uspekhi Matemat, Nauk 1, No. 2, 1946

Report U-1493, 27 Sep 1951

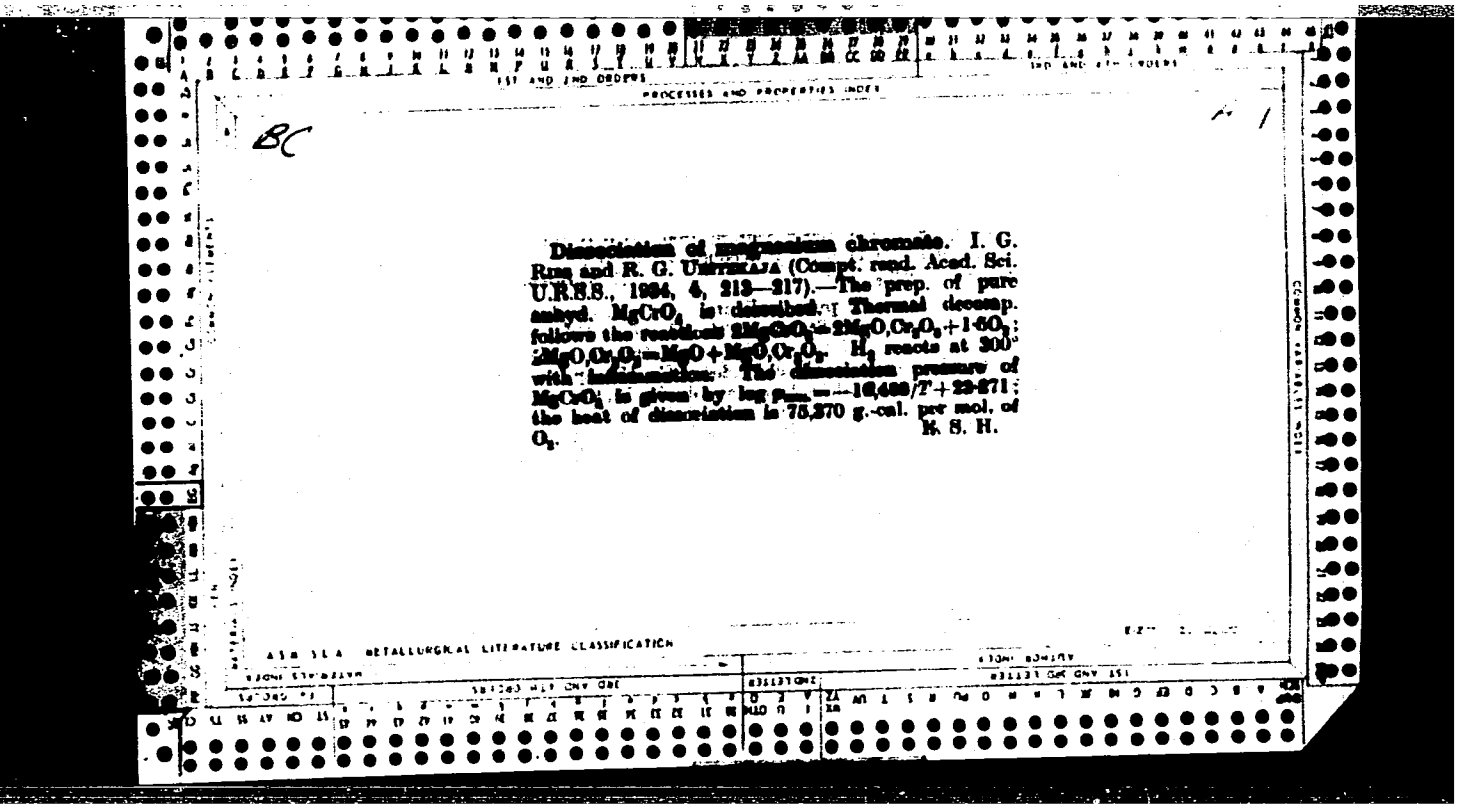


quilibria in the Hydrolysis of Boron Tetrafluoride.
G. Riss. *Reports of the Academy of Sciences of*
.S.S.R., v. 52, no. 5, 1946, p. 421-424.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

Preparation of crystalline chromic anhydride from calcium chromate. I. G. Riss, A. E. Zajarni, and A. I. Zelianskaja (*J. Appl. Chem. Russ.*, 1941, **14**, 46—62).— $CaCl_2$ is added in 20% excess to aq. Na_2CrO_4 at 100°, and the ppt. of $CaCrO_4$ is collected after 1 hr. The solubility of $CaSO_4$ in aq. CrO_3 rises with increasing $[CrO_3]$ to a max. at ~30 g. of CrO_3 per 100 g. H_2O, thereafter falling rapidly (25°, 60°, and 95°). 95% H_2SO_4 is added to an aq. suspension of $CaCrO_4$ at 100°, in such amount as to give a $[CrO_3]$ of 32%, and the solution is filtered. The filtrate is evaporated to a $[CrO_3]$ of 81%, again filtered, and cooled, when pure CrO_3 separates in good yield.

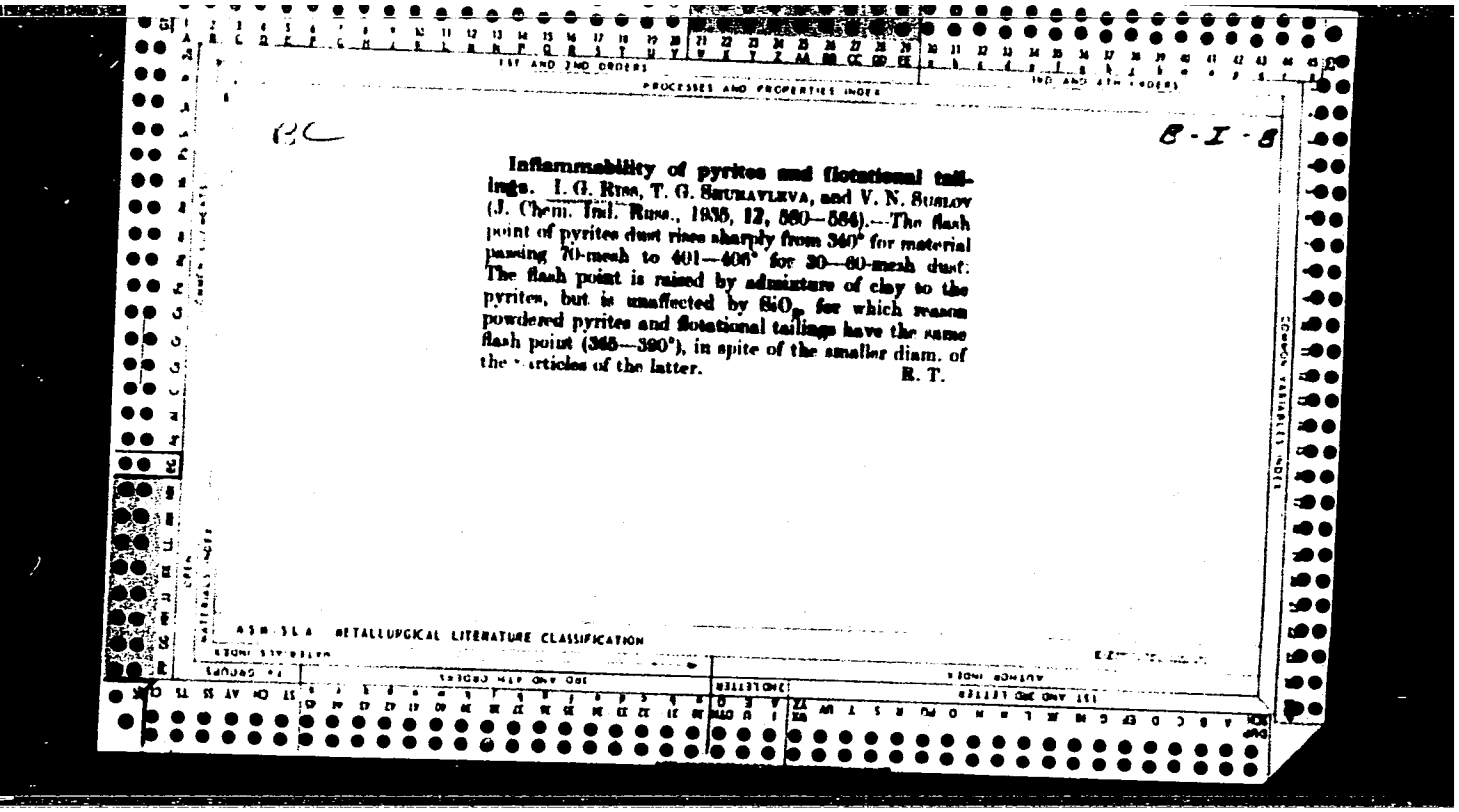
R. T.



BC

Dissociation of magnesium chromate. I. G. Rus and R. G. Ustinnaja (Compt. rend. Acad. Sci. U.R.S.S., 1954, 4, 213—217).—The prep. of pure anhyd. $MgCrO_4$ is described. Thermal decomp. follows the reactions $2MgCrO_4 = 2MgO,Cr_2O_3 + 1{\cdot}5O_2$; $2MgO,Cr_2O_3 = MgO + MgO,Cr_2O_3$. H_2 reacts at 300° with the former. The dissociation pressure of $MgCrO_4$ is given by $\log p_{atm.} = -16{,}488/T + 23{\cdot}871$; the heat of dissociation is 75,270 g.-cal. per mol. of O_2.

K. S. H.

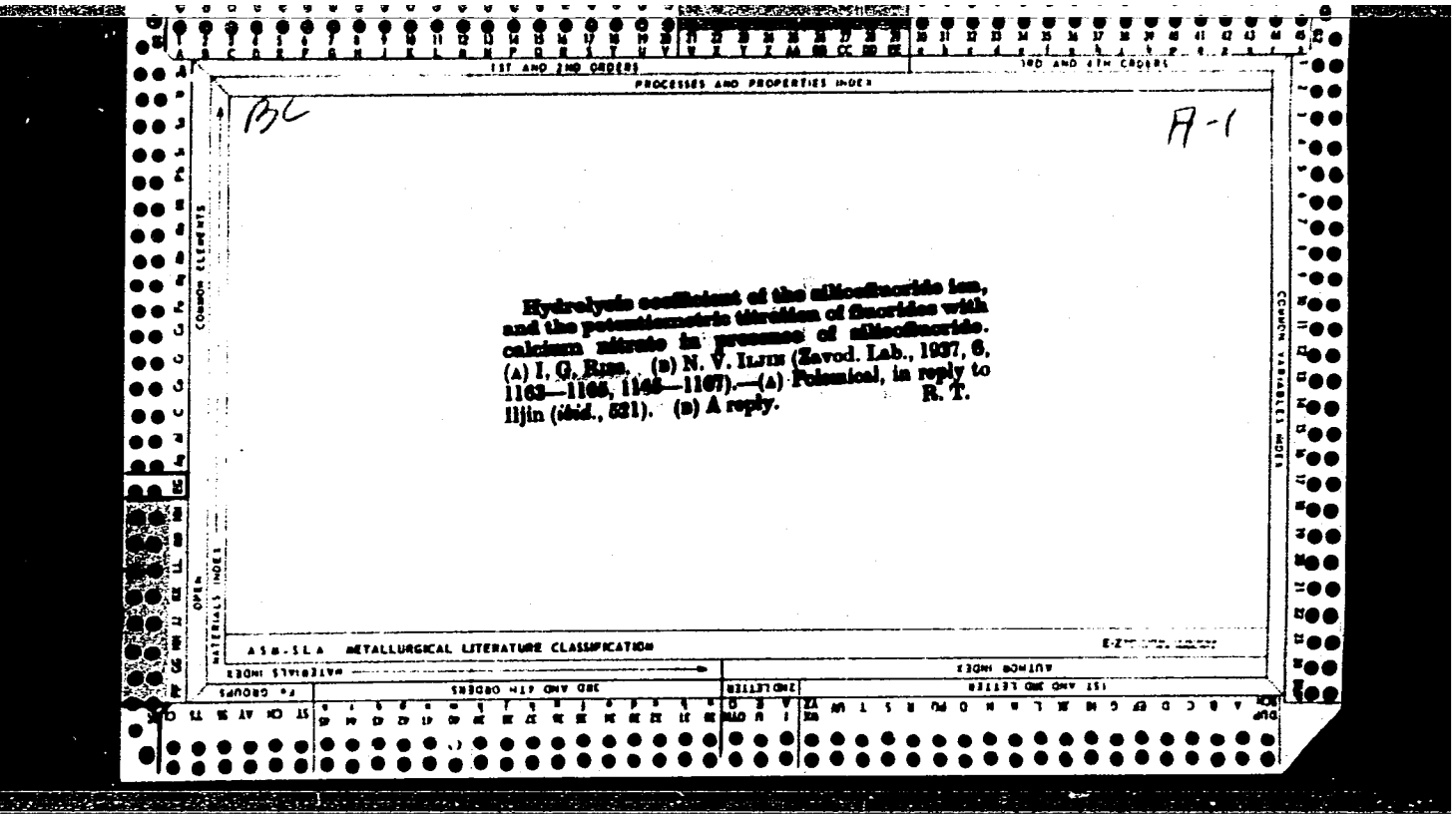


BC

B-I-8

Inflammability of pyrites and flotational tailings. I. G. Rtss, T. G. Shubavleva, and V. N. Subilov (J. Chem. Ind. Russ., 1935, 12, 580—584).—The flash point of pyrites dust rises sharply from 340° for material passing 70-mesh to 401—406° for 30—60-mesh dust. The flash point is raised by admixture of clay to the pyrites, but is unaffected by SiO_2, for which reason powdered pyrites and flotational tailings have the same flash point (365—390°), in spite of the smaller diam. of the particles of the latter.

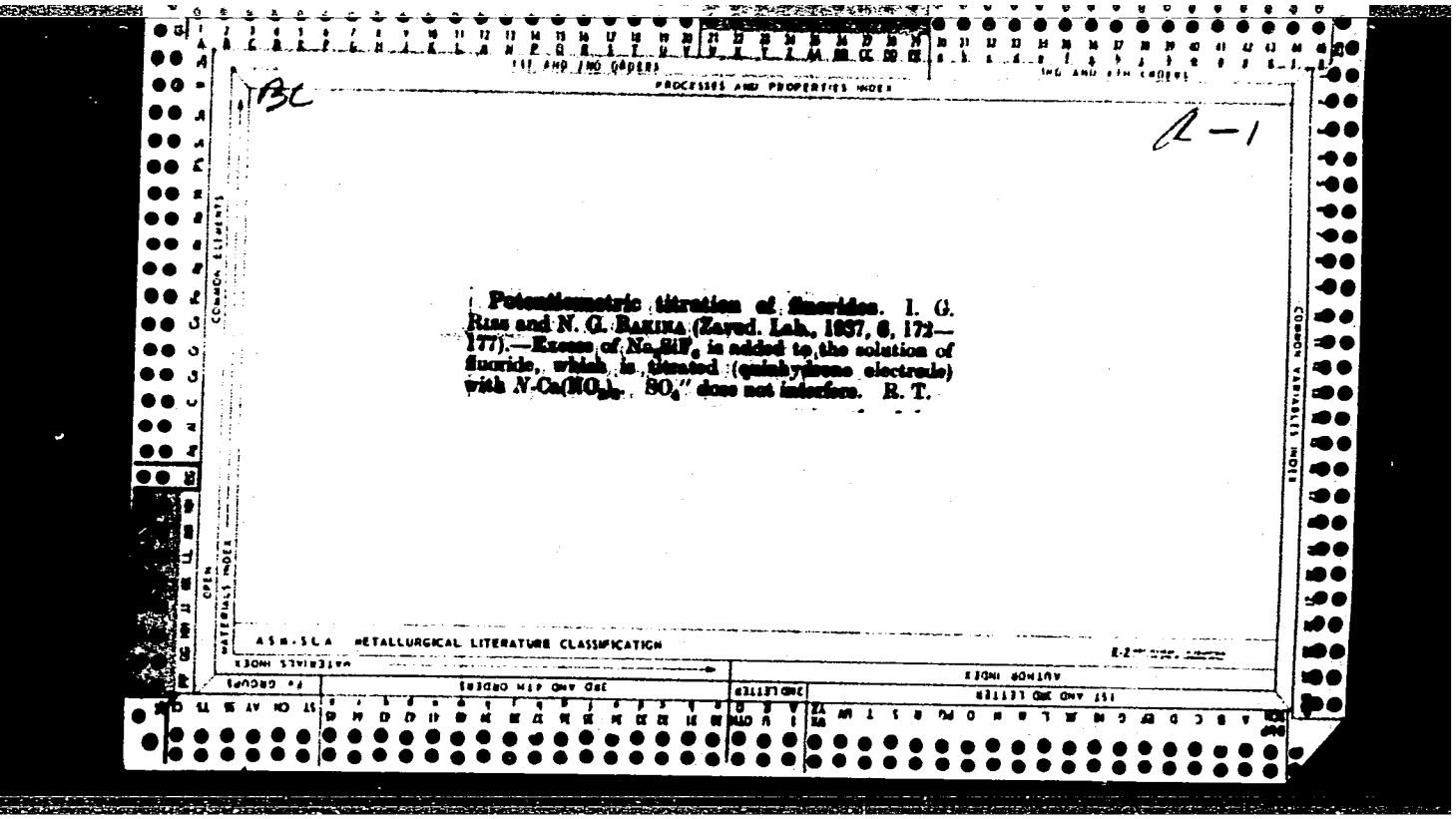
R. T.



BC

A-1

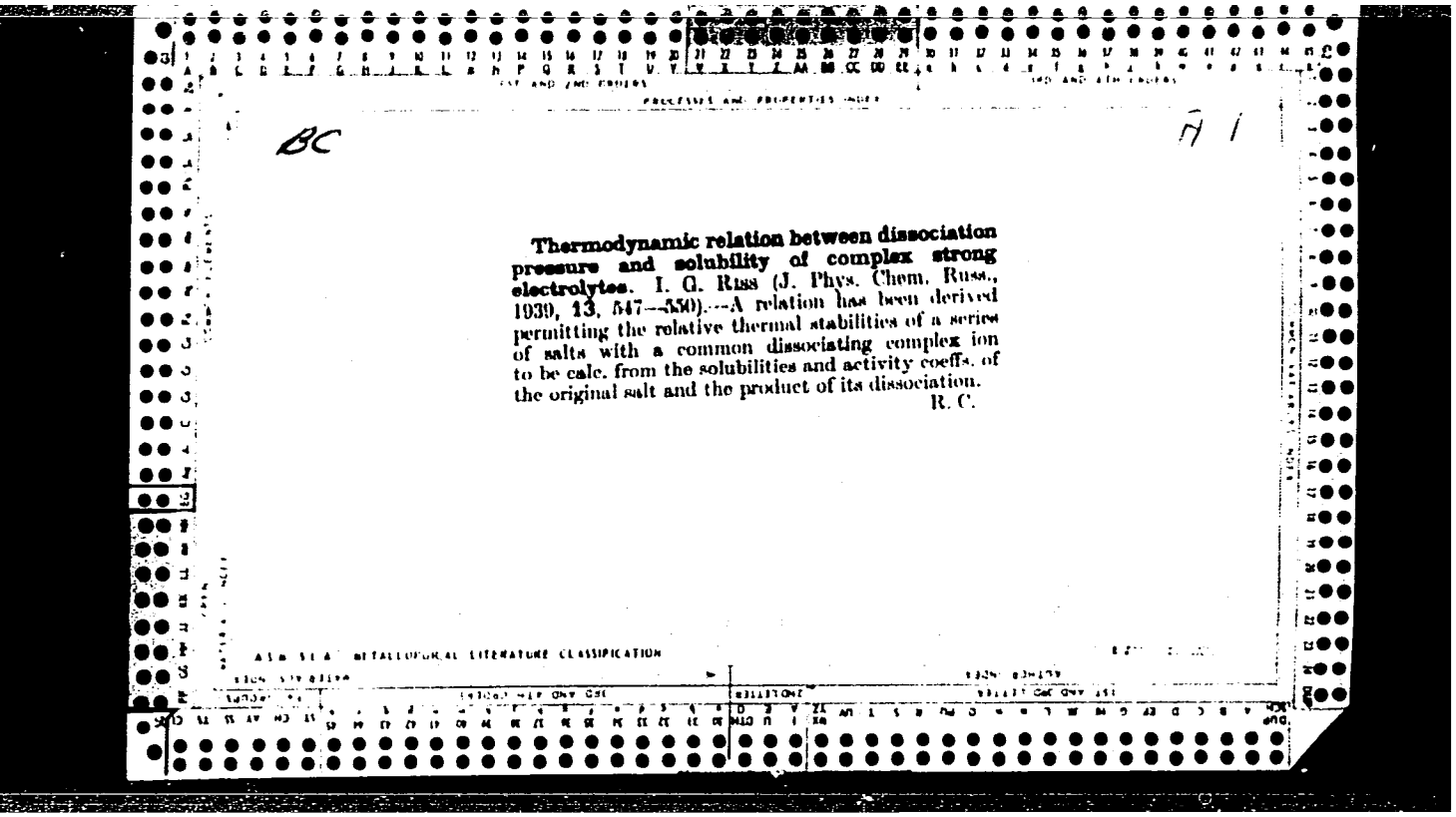
Hydrolysis coefficient of the silicofluoride ion, and the potentiometric titration of fluorides with calcium nitrate in presence of silicofluoride. (A) I. G. Rus. (B) N. V. Ilijin (Zavod. Lab., 1937, 6, 1163—1165, 1166—1167).—(A) Polemical, in reply to R. T. Iljin (ibid., 521). (B) A reply.



BC

A-1

Potentiometric titration of fluorides. I. G. Riss and N. G. Rakina (Zavod. Lab., 1957, 6, 172–177).—Excess of Na_2SiF_6 is added to the solution of fluoride, which is titrated (quinhydrone electrode) with N-$Ca(NO_3)_2$. SO_4'' does not interfere. R. T.



BC

A 1

Thermodynamic relation between dissociation pressure and solubility of complex strong electrolytes. I. G. Riss (J. Phys. Chem. Russ., 1939, **13**, 547—550).—A relation has been derived permitting the relative thermal stabilities of a series of salts with a common dissociating complex ion to be calc. from the solubilities and activity coeffs. of the original salt and the product of its dissociation.

R. C.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

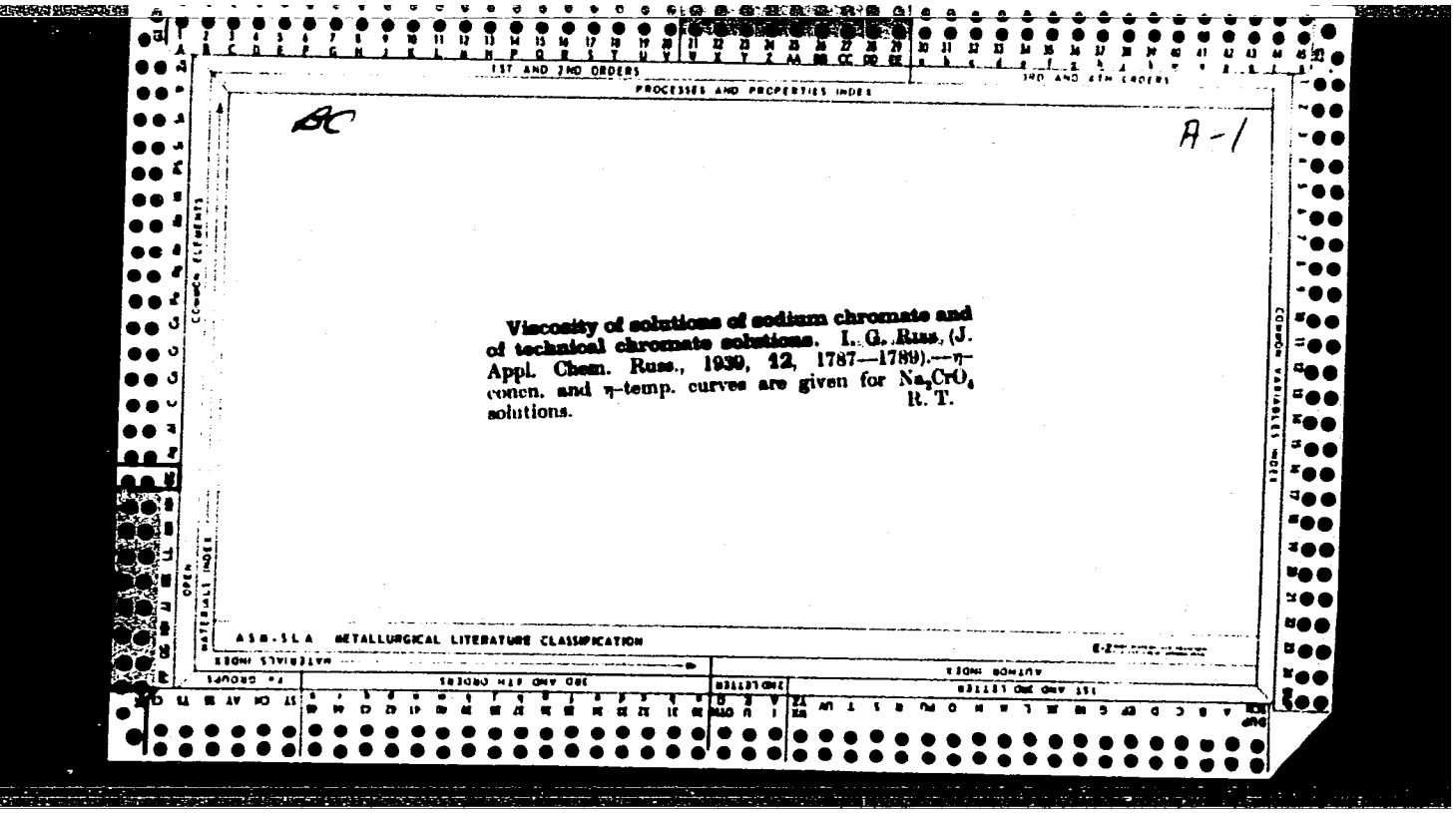
BC

b-1

Virtual entropy of silicon fluoride calculated from the molecular constants. I. G. Riss (Compt. rend. Acad. Sci. U.R.S.S., 1939, 24, 568—569).—The entropy of SiF_4 from 25° to 300° is tabulated. $(S_{total})_{25°}$ = [illegible] g.-cal. per degree per mol.

O. D. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

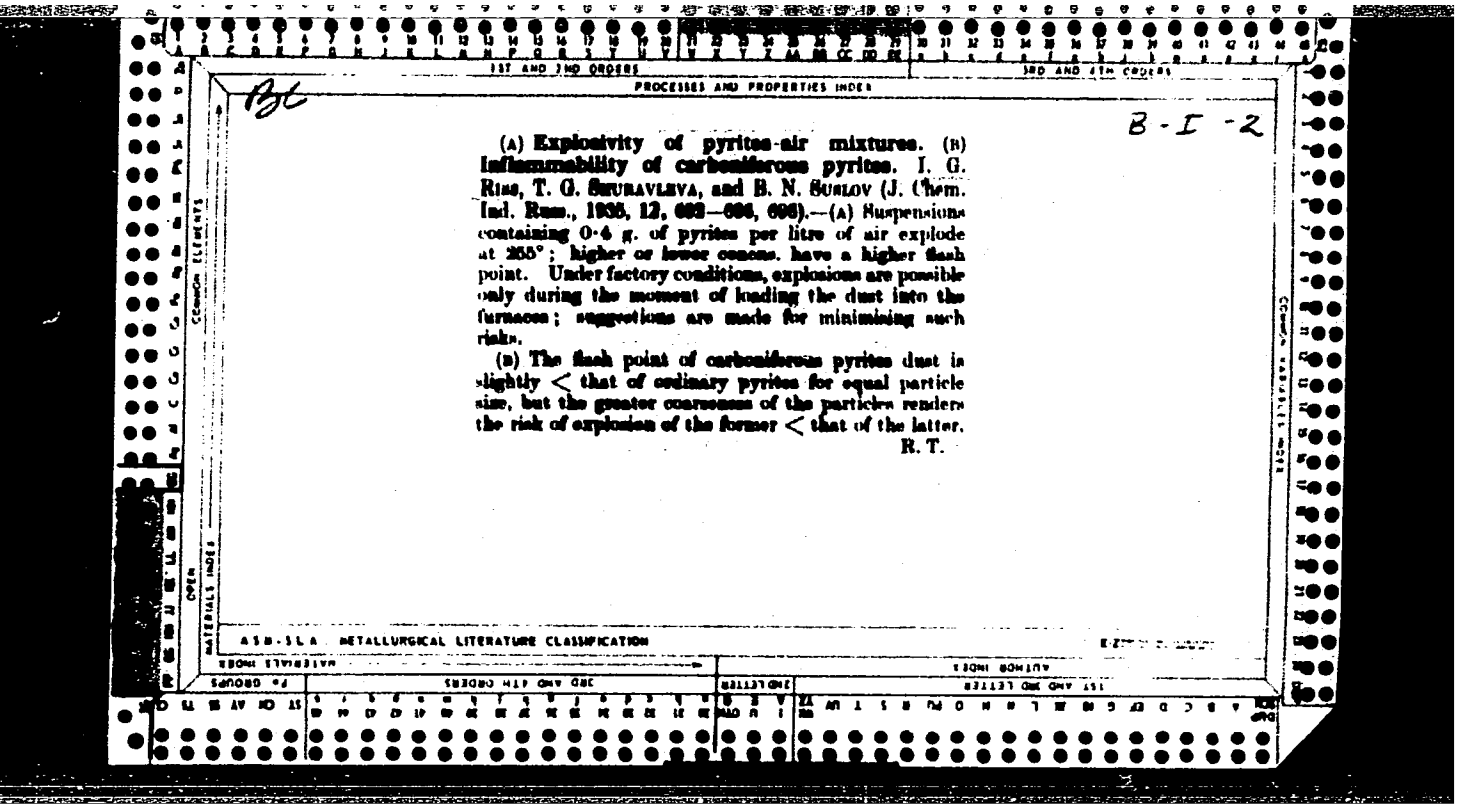


Viscosity of solutions of sodium chromate and of technical chromate solutions. L. G. Russ. (J. Appl. Chem. Russ., 1939, 12, 1787—1789).—η–concn. and η–temp. curves are given for Na_2CrO_4 solutions. R. T.

GTRSPL Vol. 5-No. 1 Jan. 1952

[illegible], M.M. and Vitukhnovskaya, B.S. (I.V. Stalin Dnepropetrovski Institute of Metallurgy). Equilibrium in the system sodium fluoride-borax-water at 25°, 287-9

Akademiya Nauk, S.S.S R., Doklady Vol. 78, No. 2



PROCESSES AND PROPERTIES INDEX

B-I-2

(A) **Explosivity of pyrites-air mixtures.** (B) **Inflammability of carboniferous pyrites.** I. G. Rius, T. G. Shubavleva, and B. N. Suslov (J. Chem. Ind. Russ., 1935, 12, 603—604, 606).—(A) Suspensions containing 0·4 g. of pyrites per litre of air explode at 255°; higher or lower concns. have a higher flash point. Under factory conditions, explosions are possible only during the moment of loading the dust into the furnaces; suggestions are made for minimising such risks.

(B) The flash point of carboniferous pyrites dust is slightly < that of ordinary pyrites for equal particle size, but the greater coarseness of the particles renders the risk of explosion of the former < that of the latter.

R. T.

RISS, J.; KLIR, J.

"Terminology in the field of electronic computers." P. 403.

SLABOPROUDY OBZOR. (Ministerstvo presneho strojirenstvi, Ministerstvo spoju a Vedecka technicka spolecnost pro elektrotechniku pri CSAV). Praha, Czechoslovakia, Vol. 20, No. 6, June 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

NISS, J.

TECHNOLOGY

Periodicals: SLABOVAGI TECHNIKA Vol. 6, no. 9, Sept. 1958

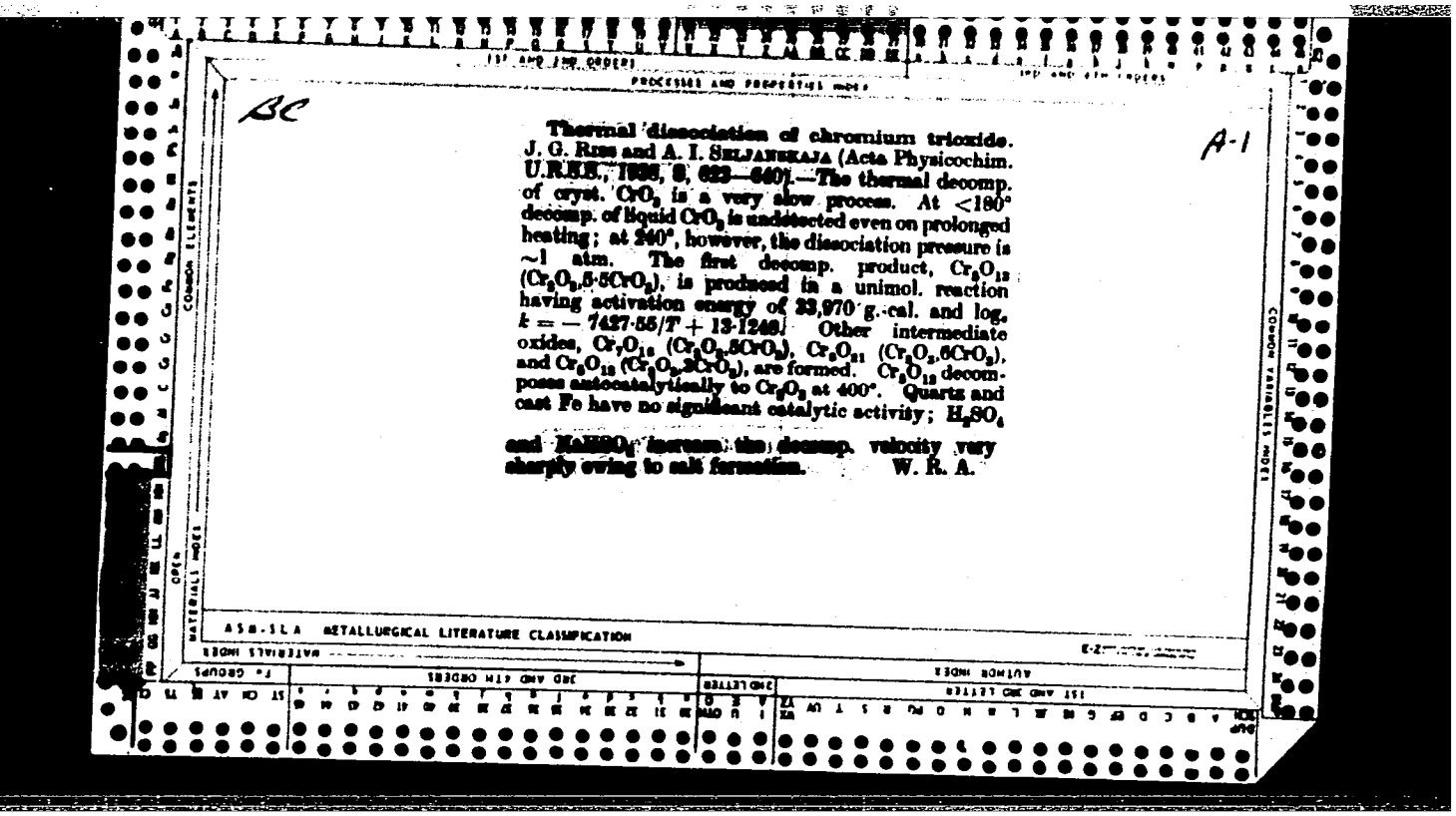
NISS, J. Analogue multiplier using the Hall effect. p. 346.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

RI[illegible], J.

RISS, J. The number of brook trout should be increased by building a reservoir at the source of the Vistula River. p. 11. Vol. 7, no. 9, Sept. 1955, GOSPODARKA RYBNA. Warszawa, Poland.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957



BC

A-1

Thermal dissociation of chromium trioxide. J. G. Rüs and A. I. Seljanskaja (Acta Physicochim. U.R.S.S., 1936, 8, 623—640).—The thermal decomp. of cryst. CrO_3 is a very slow process. At <180° decomp. of liquid CrO_3 is undetected even on prolonged heating; at 240°, however, the dissociation pressure is ~1 atm. The first decomp. product, Cr_5O_{13} ($Cr_2O_3.3CrO_3$), is produced in a unimol. reaction having activation energy of 33,970 g.-cal. and log. $k = -7427{\cdot}55/T + 13{\cdot}1248$. Other intermediate oxides, Cr_7O_{18} ($Cr_2O_3.5CrO_3$), Cr_3O_{21} ($Cr_2O_3.6CrO_3$), and Cr_9O_{12} ($Cr_2O_3.3CrO_3$), are formed. Cr_5O_{13} decomposes autocatalytically to Cr_2O_3 at 400°. Quartz and cast Fe have no significant catalytic activity; H_2SO_4 and $NaHSO_4$ increase the decomp. velocity very sharply owing to salt formation. W. R. A.

RISS, O. V.

25611 RISS, O. V. Vydayushchiysya Ruskiy Moryak-Geograf A. I. Chirikov. (K 200-Letiyu So Dnya Smerti). Voprosy Geografii, Sb 12, 1949, S 243-46

So: Letopis' Zhurnal'nykh Statey, Vol. 34, Moshva, 1949

RISS, O. V.

25611 RISS, OV Vydayushchiysya Russkiy Moryak-Grograf A.I. Chirikov. (K 200-Letiyu so dnua smerti). Voprosy Georgrafii, SB 12, 1949. S. 243-46.

S): Letopis' Zhurnal' Nykh Statey, Vol. 34, Moskva, 1949.

PI[illegible], [illegible] V.

[illegible]

[illegible] Russkiy Moryak-Geograf A. I. Chirikob ([illegible]).
V [illegible] Geografii, no. 12, 1949, C. [illegible].

[illegible]

RISS, S.M.

Basic problems of liver cirrhosis. Suvr. med. 13 no.6:3-12 '62.

1. Iz terapevtichnata klinika pri Leningradskiia Sanitarno-khigienen institut (Zavezhdasht prof. S.M. Riss). Chlen-korespondent pri AMN SSSR.
(LIVER CIRRHOSIS)

RISS, V.P.

PHASE I BOOK EXPLOITATION SOV/5660

Mashino-tekhnicheskaya obshchestvo mashinostroitel'noy promyshlennosti.
Tsentral'noye pravleniye. Sektsiya remonta i modernizatsii oborudovaniya

Modernizatsiya i remont oborudovaniya mashinostroitel'nykh zavodov (Modernization and Repair of Machine-Building Plant Equipment) Moscow, Mashgiz, 1959.
251 p. Errata slip inserted. 6,100 copies printed.

Ed. (Title page): R.A. Roskin, Candidate of Technical Sciences; Ed. (Inside book): A.P. Popov, Engineer; Tech. Ed.: V.D. El'kind; Managing Ed. for Literature Metalworking and Machine-Tool Construction (Mashgiz): R.D. Boyarshina, Engineer.
Editorial Board: R.A. Roskin (Chairman), Candidate of Technical Sciences; Yu.S. Borisov, Engineer; V.D. Fletnev, Engineer; V.I. Mikhaylovskiy, Engineer; and V.P. Golov, Engineer.

PURPOSE: This collection of articles is intended for technical personnel dealing with modernization and overhaul of equipment.

COVERAGE: The articles in this collection deal with the basic trends and a number of specific problems in the modernization of the machine industry. Modernization of foundry, forging-shop, and crane equipment and problems in the automation of equipment repair are discussed. Information is given on the use of multiple-unit subassemblies in the modernization of metal-cutting machine tools, on measures for prolonging the life of forging hammers, on methods of automatic vibro-electric hard facing of worn parts, on nullification, and on vibroisolation of forging-hammer foundations. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

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S/169/62/000/012/026/095
D228/D307

AUTHOR: Riss, Yu.A.

TITLE: First trial small-scale geophysical surveys using air transport in the almost impenetrable areas of West Siberia

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1962, 40, abstract 12A328 (Tr. In-ta geol. i geofiz. Sib. otd. AN SSSR, no. 11, 1961, 167-174)

TEXT: In conditions of the almost impenetrable areas of the West Siberian Plain regional surveys on a scale of 1:1,000,000 can be expediently carried out with the use of air transport, principally helicopters. Light hydroplanes or AH-2 (AN-2) aircraft with floats may also be employed in areas with a developed system of lakes. AN-2 aircraft on skis can be used in winter in polar regions. In swampy areas personnel and equipment are landed from hovering helicopters. The simultaneous use of 3 gravimeters is recommended for surveying purposes; the best is the ГАК-3М (GAK-ZM)

Card 1/2

First trial small-scale ...

with a scale value of 6-8 milligals/revolution. The observation grid density was 1 point over 200 km^2. The grid was made twice as dense in areas adjoining trunk rivers; along these rivers it was brought to the requisite density for 1:200,000-scale surveying. The distance between points was 10-15 km on the ordinary grid and 100-150 km on the reference grid. Ordinary grid observations were made in 1-day traverses. These were begun and closed at reference grid points and represented a loop like a figure of 8 with a repetitive observation at the point of intersection. 1-2 points of previous traverses were usually included in the traverse polygon as control and repetitive points. In the precision of their determinations ordinary grid points correspond to the Class II reference points used in 1:200,000-scale surveying. The determinations at reference points can be regarded in their accuracy as being Class I reference points. In plan, the observation points my be tied in through 1:100,000-scale topographic maps and air-photo survey material. Barometric leveling with 3 aneroids is recommended for tying in the points in elevation.

[Abstracter's note: Complete translation]

Card 2/2