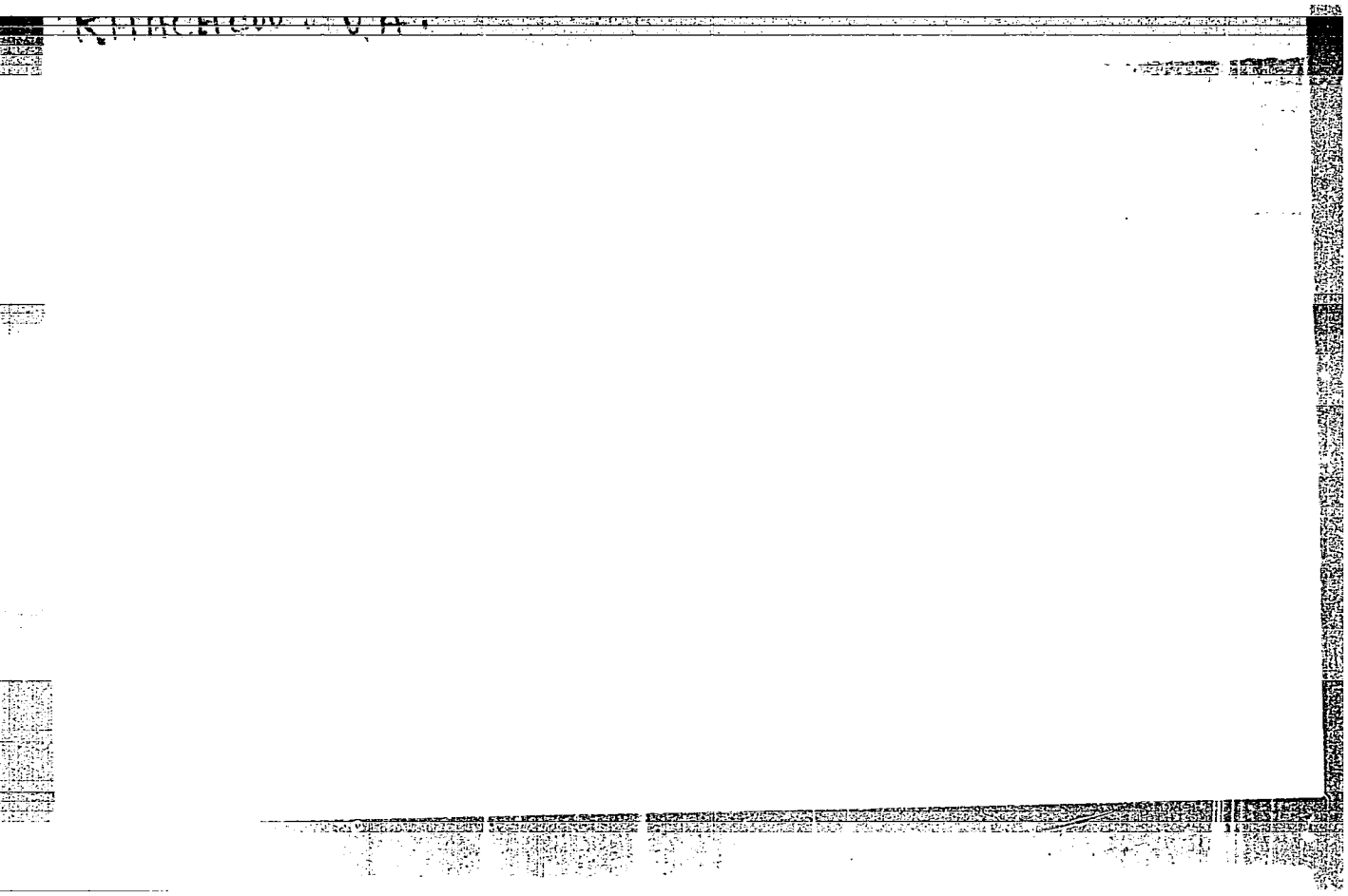


APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721630002-0"

KHACHOYAN, G.; SUCHKOV, I.

Organizational work of the city committee. Voen.znan. 36 no.5:21-22 My '60. (MIRA 13:4)

1. Zamestitel' predsedatelya Tashkentskogo oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu (for Khachoyan). 2. Starshiy instruktor oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu (g.Tashkent) (for Suchkov).
(Tashkent Province--Military education)

KHAN, B.Kh.; TARANOV, Ye.D.; Prinimali uchastiye: ALEKSANDROVICH, L.B.; GITARTS, G.M.; KLIBUS, Yu.V.; NOSOVA, Ye.M.; REZENBLAT, I.M.; KHACHT, A.I.

Deoxidation and alloying of acid electric steels in the ladle. Izv. vys. ucheb. zav.; chern. met. 6 no.4:50-55 '63. (MIRA 16:5)

(Steel—Electrometallurgy)

11(2) PHASE I BOOK EXPLOITATION SOV/2253

Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnykh gazov

Razrabotka i ekspluatatsiya gazovykh mestorozhdeniy, transport gaza (Development and Exploitation of Gas Fields, Transportation of Gas) Moscow, Gostoptekhizdat, 1959, 353 p. (Series: Its: Trudy, vyp. 5/13/) Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Glavnoye upravleniye gazovoy promyshlennosti pri Sovete Ministrov SSSR.

Eds.: Ye. M. Minskiy and V.N. Raaben; Exec. Ed.: M.P. Martynova; Tech. Ed.: A.S. Polosina.

PURPOSE: This collection of articles is intended for scientists, engineers, and technicians associated with the gas industry.

COVERAGE: The articles discuss the development of gas fields, natural gas recovery, gas transportation, and subsurface gas conservation. Gas field operating conditions are analyzed from the commercial point of view. The author notes that due to the specific geological conditions prevailing in the Soviet Union the application of gas extraction methods of the type used in the USA is not always advantageous. Individual articles discuss problems of the development of gas fields with narrow oil containing fringes, the theory of gas inflow, the study of gas well performance, gas filtration dynamics, and the study of gas condensates. A number of articles are devoted to the study of unstabilized gas flow in pipelines, and discuss theoretical problems connected with the performance of gas ejectors and compressors. The authors also deal with corrosion of the inner surface of gas pipelines. Conclusions made by the authors are supported by mathematical calculations. No personalities are mentioned. References accompany each article.

Khodanovich, I.Ye., and V.I. Tumpel'. On the Automodel Determination of Gas Flow in Pipelines

Khodanovich, I.Ye., and V.A. Mamayev. Some Calculations on Gas Pipelines With an Unstabilized Gas Flow

Khodanovich, I.Ye., and V.A. Mamayev. Accurate Determination of the Gas Pipeline Throughput Capacity

Khodanovich, I.Ye. and V.P. Bakaleyev. Effect of Connecting Rings on the Throughput Capacity of a Gas Pipeline

Gorodetskiy, Y.I. On the Theory of Unstabilized Gas Stream Flowing Under Uniform Pressure Through a Long Stretch of Pipeline

Portnov, I.G. Steadiness of Stationary Operating Conditions of a Supersonic Gas Ejector

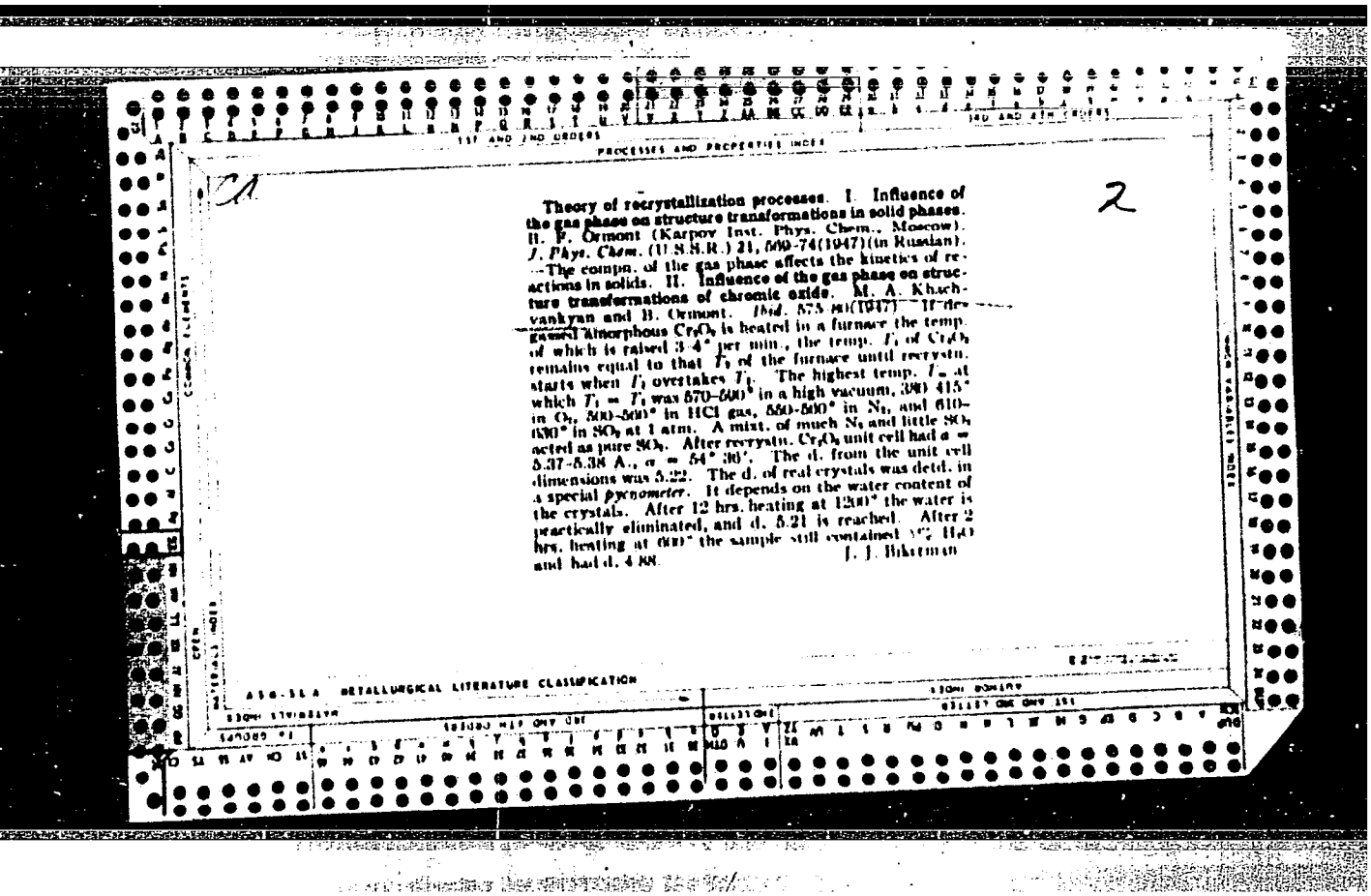
Portnov, I.G. and G.A. Zotov. Successive Operations of Gas Ejectors Under Stationary Supercritical Conditions

Khachaturyan, S.A. Study of the Acoustic Supercharging of a Piston Compressor, Carried Out With the Aid of a Variable Volume Resonator

Bokserman, Yu.I., K.S. Zarembo, and Ye.P. Okhrimenko. Study of the Distructive Corrosion of the Inner Surface of the Gas-Line Steel Pipes

Zarembo, K.S., Ye.P. Okhrimenko, and A.A. Tumanova. Study of the Process of Oil Spray Used for the Anticorrosive Protection of the Inner Surface of Gas Pipelines

Shevlev, B.P., and K.S. Zarembo. Experience Gained in Mastering the Production of Oil Spray, and Its Utilization in a Municipal Gas Distributing Network



PROCESSES AND PROPERTIES INDEX

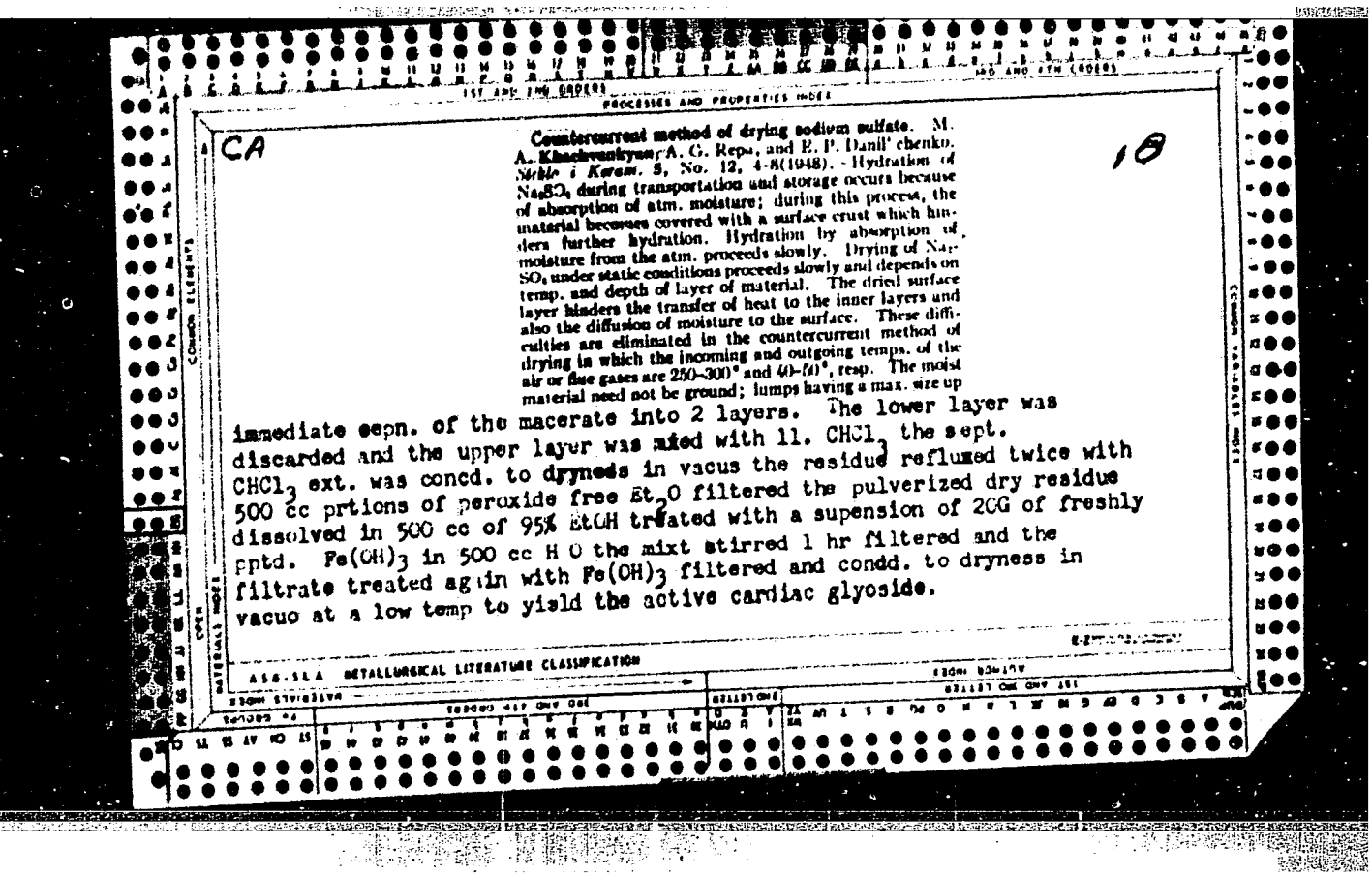
C1

2

Theory of recrystallization processes. I. Influence of the gas phase on structure transformations in solid phases. II. V. Ormont (Karpov Inst. Phys. Chem., Moscow). *J. Phys. Chem.* (U.S.S.R.) 21, 509-74(1947)(in Russian). --The compn. of the gas phase affects the kinetics of reactions in solids. II. **Influence of the gas phase on structure transformations of chromic oxide.** M. A. Khachvankyan and B. Ormont. *Ibid.* 575-80(1947). If the gummed amorphous Cr_2O_3 is heated in a furnace the temp. of which is raised 3-4° per min., the temp. T_1 of Cr_2O_3 remains equal to that T_2 of the furnace until recrystn. starts when T_2 overtakes T_1. The highest temp. T_m at which $T_1 = T_2$ was 570–600° in a high vacuum, 380–415° in O_2, 500–500° in HCl gas, 550–600° in N_2, and 610–630° in SO_2 at 1 atm. A mixt. of much N_2 and little SO_2 acted as pure SO_2. After recrystn. Cr_2O_3 unit cell had a = 5.37–5.38 A., α = 54° 30'. The d. from the unit cell dimensions was 5.22. The d. of real crystals was detd. in a special *pycnometer*. It depends on the water content of the crystals. After 12 hrs. heating at 120° the water is practically eliminated, and d. 5.21 is reached. After 2 hrs. heating at 600° the sample still contained 1% H_2O and had d. 4.88.

J. J. Bikerman

A56-51A METALLURGICAL LITERATURE CLASSIFICATION



CA

10

Countercurrent method of drying sodium sulfate. M. A. Khachevatskyan, A. G. Repa, and E. P. Danil'chenko. *Stekło i Keram.* 5, No. 12, 4-8(1948). - Hydration of Na_2SO_4 during transportation and storage occurs because of absorption of atm. moisture; during this process, the material becomes covered with a surface crust which hinders further hydration. Hydration by absorption of moisture from the atm. proceeds slowly. Drying of Na_2SO_4 under static conditions proceeds slowly and depends on temp. and depth of layer of material. The dried surface layer hinders the transfer of heat to the inner layers and also the diffusion of moisture to the surface. These difficulties are eliminated in the countercurrent method of drying in which the incoming and outgoing temps. of the air or flue gases are 250–300° and 40–50°, resp. The moist material need not be ground; lumps having a max. size up

immediate sepn. of the macerate into 2 layers. The lower layer was discarded and the upper layer was mixed with 1l. $CHCl_3$ the sept. $CHCl_3$ ext. was concd. to dryness in vacus the residue refluxed twice with 500 cc prtions of peroxide free Et_2O filtered the pulverized dry residue dissolved in 500 cc of 95% EtOH treated with a supension of 20G of freshly pptd. $Fe(OH)_3$ in 500 cc H_2O the mixt stirred 1 hr filtered and the filtrate treated again with $Fe(OH)_3$ filtered and condd. to dryness in vacuo at a low temp to yield the active cardiac glycoside.

CA

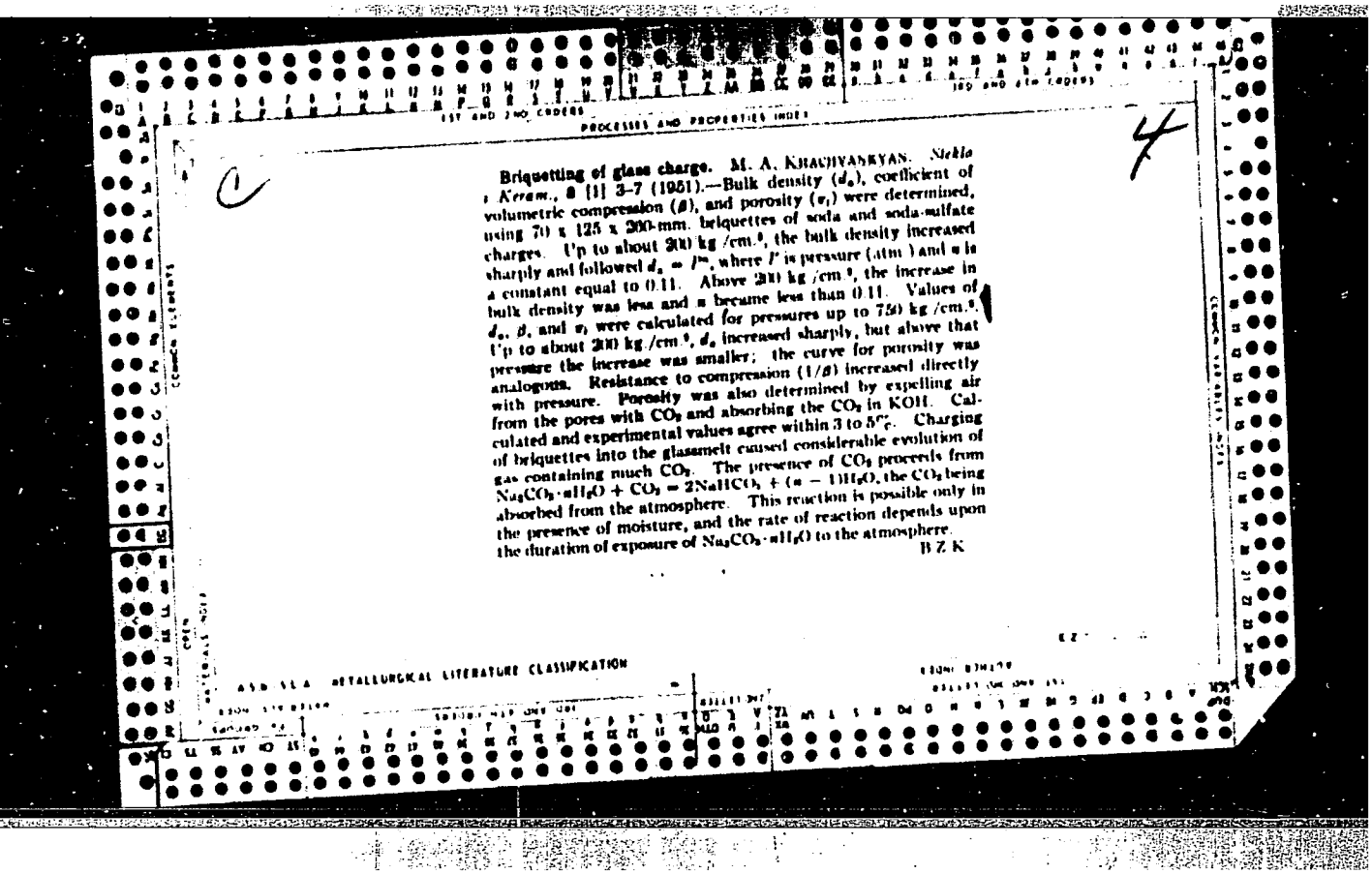
The cationic complex adsorbed by clays in equilibrium with several types of natural waters. M. A. Khachmankyan (Hydrochem. Inst., Novocherkassk). *Gidrokhim. Materialy* (Hydrochem. Materials) 16, 69–78(1946).—Gypsum water from the mineral waters of Krainka, sea water from the Black Sea at Sochi, brine from a drying-up basin near the sea (Lake Sasyk-Sivash), and sulfate water from a deep boring, upper Devonian deposit, were mixed with carbonate-free clay, 500 g. in 3 l. of the resp. waters. The mixt. was stirred daily until the Ca content of the supernatant liquid was const., indicating equil. Then the supernatant liquid was analysed for pH, Na, K, Mg, Ca, Cl, SO_4, and HCO_3. The clays thus treated were subjected to pressure to remove the excess of equil. soln. This was followed by leaching the clay with a 1.0 *N* soln. NH_4Cl. At the same time the moisture of the pressed clay was detd. by drying at 105–110°. To obtain the true value of the adsorbed cations it is necessary to det. the vol. of the cations in the equil. soln. between the clay particles. To get this value the vol. of the physically held water which is not a solvent has to be subtracted from the total vol. of H_2O. Since the physically held water depends on the concn. of the equil. soln., each type of mineral water had to be analysed for this phys. water by detg. the Cl titer. A sample of the air-dry clay was treated with 120 ml. of the equil. soln. and stirred for 30–40 min., centrifuged, and in the soln. the Cl concn. was detd. The quantity of physically combined H_2O was calcd. by the following equation:

$$X = \frac{100\left[\left(V_0 - V_0\frac{C_1}{C_0}\right) + a\right]}{a - b}$$

X = physically combined H_2O in g./100 g. of dry clay; V_0 = original vol. of soln.; C_0 = original concn. of Cl; C_1 = concn. of Cl after the expt.; a = the clay sample in g.; b = the H_2O content of the clay at 105–110° in ml. H_2O per 100 g. of dry clay. The gypsum water contained 12.16 ml. physically combined water per 100 g. clay; the Black Sea water 7.13 ml.; the Sasyk-Sivash 1.67 ml.; deep boring water 19.76 ml. With these figures it was possible to calc. the complexes of adsorbed cations on the clay which correspond to the equil. conditions with the cations of the 4 types of water analysed. These data may be used in detg. the type of soln. in which the clays formed. I. S. Joffe

Reaction between caustic soda and sand M. A. Khachvankyan. *Stekło i Keram.* 7, No. 6, 8-11(1950).—Mixts. of NaOH and SiO_2 in the ratios of 2/1, 1/1, 1/1.5, 1/2, 1/3.7, and 1/4.8 for Na_2O/SiO_2 were held for different time intervals at 500 and 700°, then dissolved in water, and the residual sand was detd. to est. the rate of silicate formation. The reaction stopped after several min., without completion. Even for Na_2O/SiO_2 = 1/1, a portion of the sand and an equiv. amt. of NaOH did not react. The rate increased only slightly with time; it increased with temp., but even at 900° the reaction was not complete. The extent of silicate formation was less than the theoretical amt. except for sand finer than 0.074 mm.; as the proportion of sand was increased, the difference between the theoretical and actual values became smaller. With sand finer than 0.074 mm., the extent of silicate formation was generally greater and for Na_2O/SiO_2 = 1/1.25, the theoretical and actual curves were about the same. The difference between actual and theoretical results was due to the formation of a growing film of Na_2SiO_3 on the sand which hindered and finally stopped the diffusion of the NaOH. Approx. calcns. showed that the film on quartz sand was not over 0.08 mm. In order to obtain 100% silicate formation, sand with grains not over twice the thickness of the film should be used, or admixts. (so-called accelerators) should be added to convert the solid film into a low-melting eutectic. Addn. of NaOH to the batch should accelerate melting of glass.

B. Z. K.



PROCESSES AND PROPERTIES INDEX

Briquetting of glass charge. M. A. KHACHVANSKYAN. *Steklo i Keram.*, 8 [1] 3–7 (1951).—Bulk density (d_a), coefficient of volumetric compression (β), and porosity (v_1) were determined, using 70 x 125 x 200-mm. briquettes of soda and soda-sulfate charges. Up to about 200 kg /cm.^{2}, the bulk density increased sharply and followed $d_a = P^m$, where P is pressure (atm.) and m is a constant equal to 0.11. Above 200 kg /cm.^{2}, the increase in bulk density was less and m became less than 0.11. Values of d_a, β, and v_1 were calculated for pressures up to 750 kg /cm.^{2}. Up to about 200 kg /cm.^{2}, d_a increased sharply, but above that pressure the increase was smaller; the curve for porosity was analogous. Resistance to compression ($1/\beta$) increased directly with pressure. Porosity was also determined by expelling air from the pores with CO_2 and absorbing the CO_2 in KOH. Calculated and experimental values agree within 3 to 5%. Charging of briquettes into the glassmelt caused considerable evolution of gas containing much CO_2. The presence of CO_2 proceeds from $Na_2CO_3 \cdot nH_2O + CO_2 = 2NaHCO_3 + (n-1)H_2O$, the CO_2 being absorbed from the atmosphere. This reaction is possible only in the presence of moisture, and the rate of reaction depends upon the duration of exposure of $Na_2CO_3 \cdot nH_2O$ to the atmosphere.

B Z K

ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KHACHVANKYAN, M. A.

2398. Thermal and melting properties of a briquetted soda batch—M. A. KHACHVANKYAN (*Stek. Keram.*, 8, No. 6, 7, 1951). The author (*Abstr.* 2008, 1951) reported that, in soda batch briquettes stored in the air, crystallization of $NaHCO_3$ with absorption of CO_2 from the air takes place. Such briquettes cause foaming on the surface of the glass. But the same briquettes do not cause foaming if they have been stored for 1-2 days after preparation before being tested. To clear this up, expts. were carried out with briquetted and loose soda batches of the same comp. in pots. No acceleration of the melting process with briquettes was observed. The fining time of glass melted from briquettes that had been stored in the air (*i.e.* containing $NaHCO_3$) was 1-1·5 hr. (*i.e.* 13% of the time required for melting). It is concluded from this that briquettes pressed at *c.* 1,420 lb/sq. in. do not accelerate melting. This was confirmed by other Russian authors. Data on the changes in porosity during pressing show that at 1,420 lb/sq. in. the porosity is reduced only by 30% in comparison to the loose batch. Probably such a small reduction is not sufficient for any noticeable increase of contact surface of the reacting components. In addition, during heating of the glass batch the carbonates decompose and evolve CO_2 which leads to a porosity increase. Temps. in the briquetted and loose batches, are distributed in exactly the same way, so that the rates of reaction will also be the same. The thermal properties of the glassy melt do not differ from those of the batch. It is concluded that briquettes of prismatic shape of small sizes (½ or ¼ of the normal brick) are most suitable for blanket charging, since they give the highest packing density. (2 figs., 1 table.)

Card 1/1

ACC NR: AP7006020 SOURCE CODE: UR/0203/66/006/005/0921/0922

AUTHOR: Kaminer, N. S.; Khadakhanova, T. S.

ORG: Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Annual variations of the cosmic ray neutron component and the temperature effect

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 5, 1966, 921-922

TOPIC TAGS: solar activity, cosmic radiation, atmospheric temperature

ABSTRACT: In a recent study (N. P. Chirkov, Geomagnetizm i Aeronomiya, 6, No. 5, 920, 1966) it is stated that the annual intensity wave detected in the neutron component of cosmic rays can be caused by anisotropy of primary radiation and not by a contribution of the atmospheric temperature effect. It also is noted that the difference between the experimental and theoretical values of the temperature effect in the neutron component decreased from 1957 to 1962, that is, with a decrease of solar activity. Accordingly, Chirkov cites arguments to the effect that the annual wave can arise due to the presence in interplanetary space of a cosmic ray density gradient relative to the plane of the solar equator. The purpose of the communication cited below is to emphasize that Chirkov's arguments do not exclude the possibility of a temperature effect inthe neutron component. Facts are presented confirming the presence of such a temperature effect. The seasonal change of intensity in the middle latitudes is $\sim 0.3\%$. The seasonal change of intensity caused by the humidity effect attains $\sim 0.15\%$, that is -- only half the above value. [JPRS: 38,937]

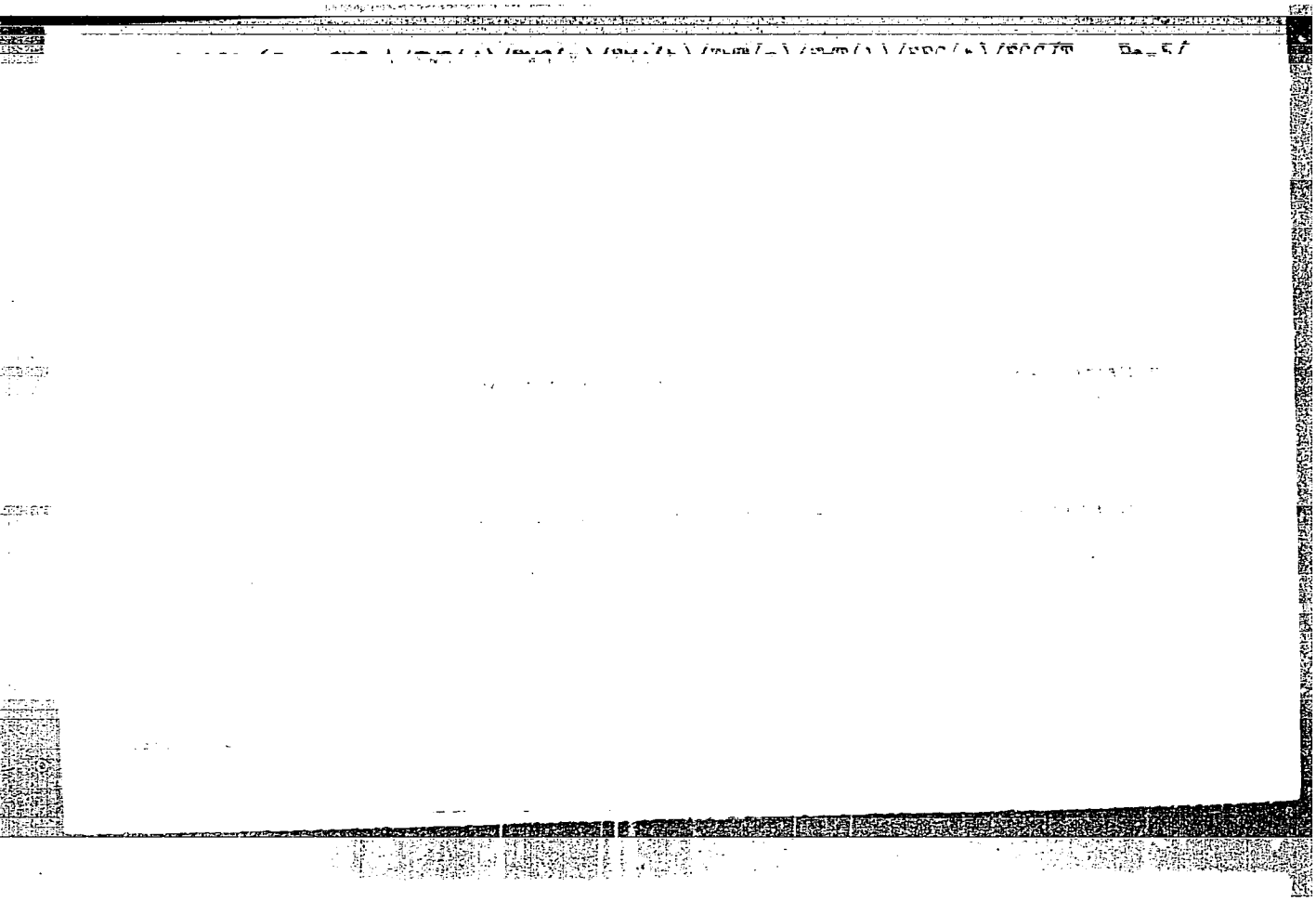
SUB CODE: 03, 04 / SUBM DATE: 14May66 / ORIG REF: 006 / OTH REF: 002

Card 1/1 UDC: 523.165

KAMINER, N.S.; ILGACH, S.F.; KHADAKHANOVA, T.S.

Temperature effect of the neutron component of cosmic rays in a period of high solar activity. Geomag. i aer. 4 no.5:946-947 S-O '64. (MIRA 17:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR i Irkutskiy gosudarstvennyy universitet imeni Zhdanova.



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2

Institut zemnogo magnetizma

OTHER

BUMYANTSEV, G.N., redaktor; BORISOV, M.I., redaktor; BUYANTUYEV, B.B., redaktor; KROTOV, V.A., redaktor; RAZUMOV, I.M., redaktor; KHADALOV, P.I., redaktor; SHNIPER, R.I., redaktor; AKHANOV, Ts.B., tekhnicheskiy redaktor.

[Studies on the production forces of the Buryat-Mongolian A.S.S.R.] Materialy po izucheniiu proizvoditel'nykh sil Buriat Mongol'skoi ASSR. Ulan-Ude, Buriat-Mongol'skoe kn-vo. no.1. 1954. 425 p. (MLRA 9:5)
(Buryat-Mongolia--Economic geography)

USSR/Farm Animals - Small Horned Cattle. Q-3

Abs Jour : Ref Zhur - Biol., No 18, 1958, 83407

Author : Khadanovich, I.V.

Inst : All-Union Scientific Research Institute of Sheep and Goat Husbandry.

Title : Effects of Various Feeding Levels in Pregnant Ewes upon Wool Yields and Sheep Progeny.

Orig Pub : Byul. nauchno-tekhn. inform. Vses. n.-i. in-t ovtsevodstva i kozovodstva, 1956 (1957), No 3 (25), 138-146.

Abstract : The first group of pregnant Soviet merino ewes received 0.87 kg of feed units, 107.2 gr of albumin, 136.3 gr of protein, 10.16 gr of Ca, 2.95 gr of P; the second group received, respectively: 1,05, 134.9, 171.9, 12.9, and 3.71; and the third group received, respectively: 1.17, 148.0, 186.0, 13.09, and 4.1. In the first group 12 twins

Card 1/2

Khadanovich I.V.

USSR / Farm Animals. Small Horned Stock. Q-2

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105715.

Author : Khadanovich, I. V.
Inst : Not given.
Title : Fattening of Sheep in the Kolkhozes of Stravopol'ye by Pasturing and Wintertime Feeding.

Orig Pub: Ovtsevodstvo, 1956, No 9, 36-39.

Abstract: The article deals with the utilization of pastures and ways of grazing the sheep and with the expedient organization of wintertime fattening.

ZAMALIN, Vladimir Samsonovich; EYDEL'MAN, B.I., red.; KHADASEVICH, Yu.G., mlad. red.; GERASIMOVA, Ye.S., tekhn. red.

[Planning standardization and normalization] Planirovanie standartizatsii i normalizatsii. Moskva, Izd-vo "Ekonomika," 1964. 197 p. (MIRA 17:3)

GREDITOR, M.A.; PECHENKIN, V.I.; IOFFE, I.S.; BOBYLEVA, L.V., red.; KHADASEVICH, Yu.G., mlad. red.

[Mechanization and automation of production; organization of work] Mekhanizatsiia i avtomatizatsiia proizvodstva; organizatsiia rabot. Moskva, Ekonomika, 1964. 214 p. (MIRA 18:1)

KHADELER, Karl-Peter

Spectra of normal operators. Dokl. AN SSSR 157 no. 2:284-287 Jl '64. (MIRA 17:7)

1. Predstavleno akademikom P.S.Novikovym.

KHADEYEV, V. A.

Talipov, Sh. T. and Khadeyev, V. A. "Physico-chemical analysis of systems having analytical importance. The system BaF_2-KF-H_2O at 25 degrees", Izvestiya Akad. nauk UzSSR, 1948, No. 4, p. 85-102, (Resume in Uzbek), - Bibliography: 15 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

TALIPOV, Sh.T.; KHADEYEV, V.A.

Physicochemical analysis of ternary aqueous solutions consisting of alkaline earth and magnesium fluorides and alkali metal fluorides. Ternary systems MgF_2 -- KF -- H_2O and MgF_2 -- NaF -- H_2O at 20°. Trudy SAGU no.15:85-100 '50. (MLRA 9:5)
(Fluorides) (Solution (Chemistry))

2

CA

Physicochemical analysis of ternary aqueous systems of fluorides of alkaline earth metals and alkali metals. I Ternary systems BaF_2-KF-H_2O and BaF_2-NaF-H_2O. Sh. T. Talipov and V. A. Khadeev (Central Asian State Univ., Tashkent). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 774-82(1950); *J. Gen. Chem. U.S.S.R.* 20, 813-21 (Engl. translation).—The ternary systems were investigated by analyzing satd. solns. and wet residues according to the Schreinemakers method, all at 25°. No double salts or solid solns. are formed in either system. The soly. of BaF_2 in KF and in NaF was detd. at concns. of alkali fluoride up to 0.5 *M*. The exptl. results agree well with those predicted by the Debye-Hückel theory in its 2nd approximation. Values for KF concn. (*M*) and for the soly. of BaF_2 (*M*) are, resp.: 0.0, 9.23×10^{-3}; 1.087×10^{-2}, 0.20×10^{-2}; 5.011×10^{-2}, 1.00×10^{-2}; 0.1001, 7.5×10^{-2}; 0.5020, 2.2×10^{-2}. The values obtained for the soly. of PbF_2 in NaF are similar. **II. Ternary systems SrF_2-KF-H_2O and SrF_2-NaF-H_2O.** *Ibid.* 783-8.—No double salts or solid solns. are formed in either system, the diagrams being qualitatively identical with those for the corresponding Ba compds. Soly. of SrF_2 was studied at concns. of NaF and KF up to 0.01 *M*. Values of NaF concn. (*M*) and SrF_2 soly. (*M*) are, resp.: 0.00, 9.62×10^{-4}; 1.905×10^{-3}, 4.51×10^{-4}; 3.000×10^{-3}, 2.00×10^{-4}; 6.082×10^{-3}, 9.3×10^{-4}; 1.000×10^{-2}, 5.0×10^{-4}. Data obtained with KF are similar.

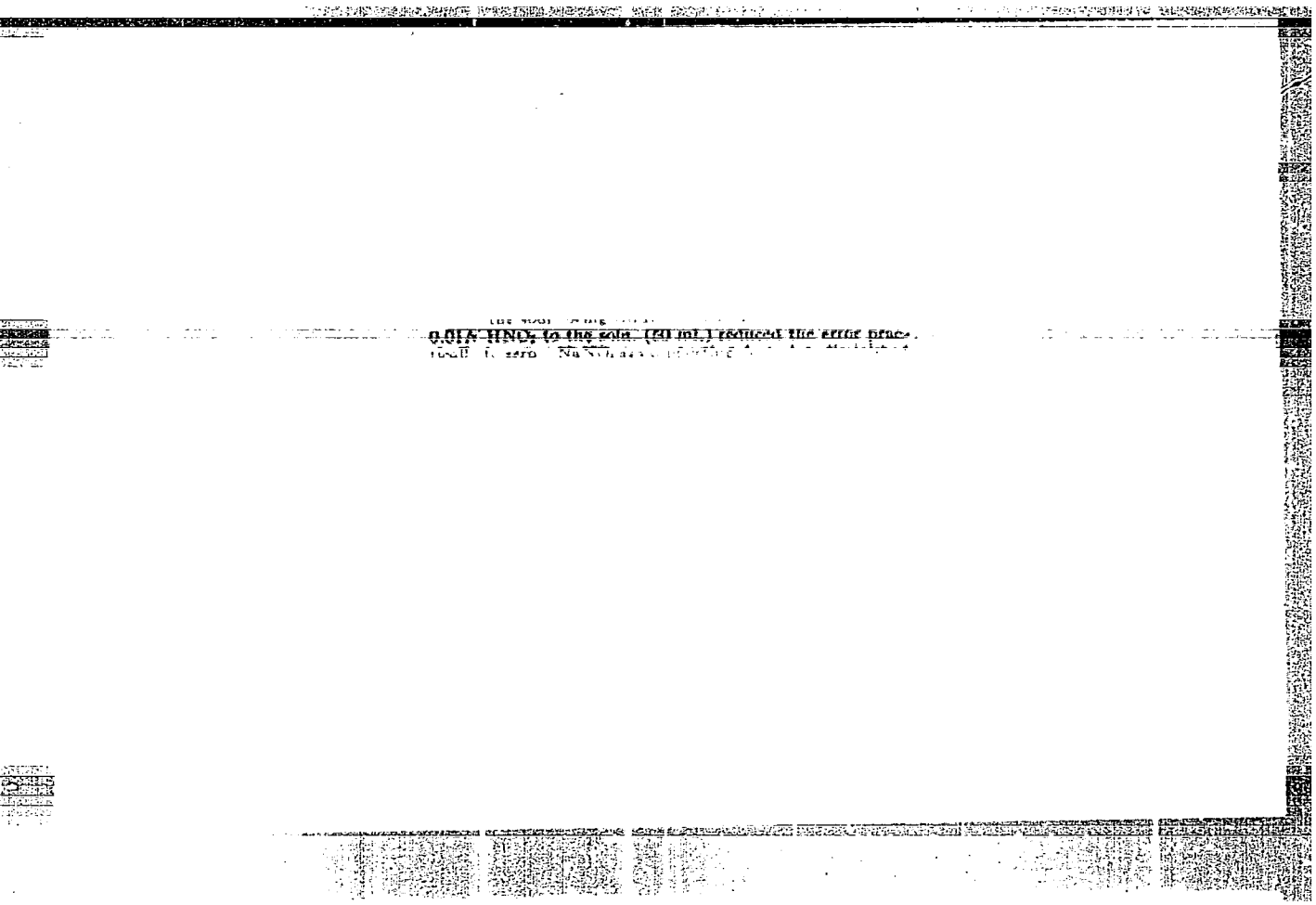
Arthi J. Muller

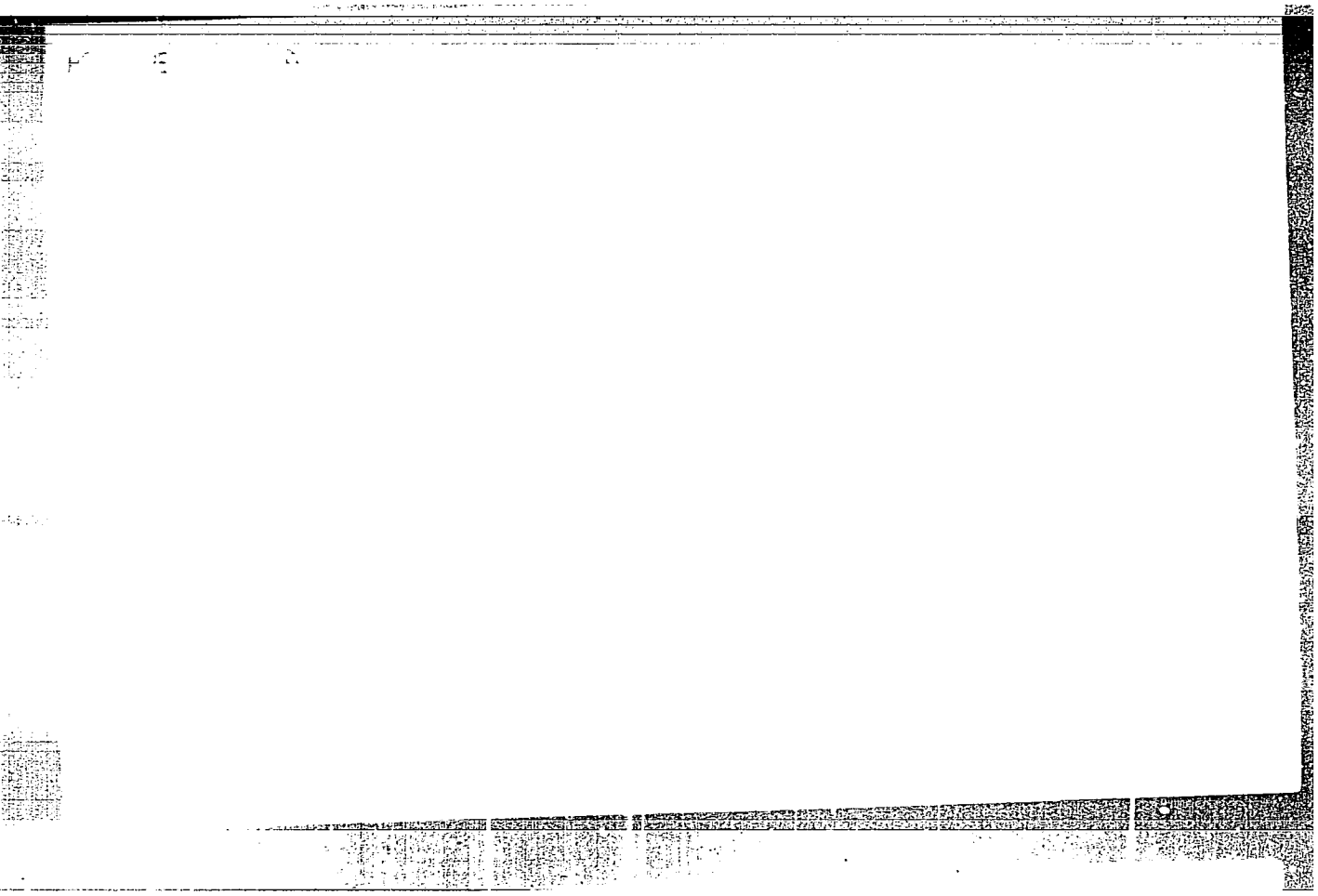
B. A.

#1 - 4

Physico-chemical analysis of ternary aqueous systems containing fluorides of alkaline earth metals and magnesium and fluorides of alkali metals. II. Ternary systems strontium fluoride–potassium fluoride–water and strontium fluoride–sodium fluoride–water at 25°. Sh. T. Tahipov and V. A. Khadeev (*J. gen. Chem. USSR*, 1950, **20**, 783—788 [U.S. transl., 823—827]).—Isotherms at 25° are determined for the systems SrF_2–KF–H_2O at KF concn. up to 0·009*M*. and SrF_2–NaF–H_2O at NaF concn. up to 0·01*M*. No compounds of mixed crystals are formed. The solubility of SrF_2 in aq. KF or NaF is accurately represented by the Debye-Hückel formula for the activity coeff. The solubility of SrF_2 in H_2O at 25° is $9·62 \times 10^{-4}$ g.-mol. per l.

O. D. SALTMARSH.





KHADEYEV, V.A.

5000

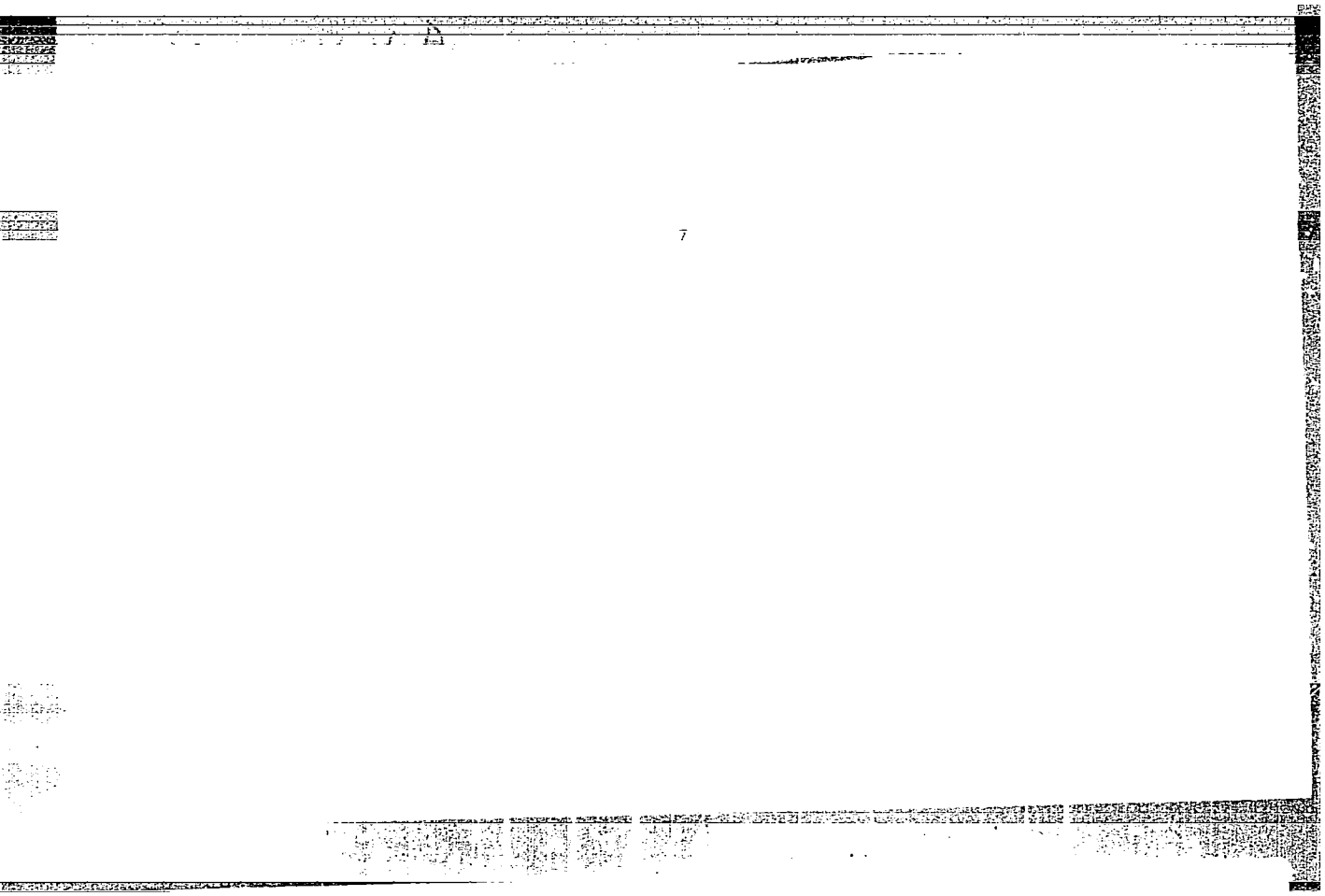
606 Amperometric titration of bismuth. A. K. Zhdanov, V. A. Khadeev and G. F. Mal'chenko. (V. I. Lenin Central Asia State University, Tashkent.) Zavod. Lab. 1955, 21 (5), 514–515. Bismuth in the presence of 8-hydroxyquinoline and sufficient acid to prevent hydrolysis of the bismuth salt and ppte. of bismuth oxinate is titrated amperometrically with a dropping mercury electrode or a rotating platinum-wire electrode at −0·9 V vs. the S.C.E. (bismuth cathodic current) or at + 0·10 V and + 0·45 V, respectively (iodine anodic current), with 0·6 or 0·4 *N* KI. Sulphate and nitrate in large concn. have no effect and chloride does not interfere at concn. ≯ 0·1 *M* if the acidity is sufficiently high. There is no interference by Al, Zn, Co, Ni, Cr and Mn in large amounts. Lead interferes but in 2·5 *N* HNO_3 with excess of Na_2SO_4 it can be titrated satisfactorily in the presence of the ppte. $PbSO_4$; Cd and Cu must be absent.

G. S. Smith

KHADEYEV, V.A.

927. Amperometric titration of copper with rubeanic acid. A. K. Zhdanov, V. A. Khadeev and O. K. Vyakozina (Gorki State Univ.). Zavod. Lab., 1955, 21 (8), 913–916.—Rubeanic acid shows two polarographic waves. The first is well defined and has a half-wave potential vs. the S.C.E. of 0·470 V in 0·1 M sodium acetate and 0·750 V in aq. M NH_4 soln. The half-wave potentials of the second wave are 0·930 and 1·5 V, respectively. The amperometric determination of Cu with rubeanic acid can be carried out at 0·3 V. Large amounts of SO_4'', NO_3', acetate, Zn, Pb, Al, Cd or Mn have no effect on the titration. Large amounts of Cl' interfere. Small amounts of Co, Ni and Cr do not interfere. Ions of Fe^{II} and Fe^{III} are harmful, but Fe^{III} up to 0·01 M can be tolerated if just enough tartrate is added to form a complex. To determine Cu in brass, 0·2 g is dissolved in 5 ml of conc. HNO_3, 20 ml of water are added, the soln. is boiled to remove oxides of N, 2 N NaOH is added until the soln. is slightly acid, then the soln. is made up to 250 ml and 25 ml are taken. To determine Cu in duralumin, 1 g is dissolved in 30 ml of 20 per cent. NaOH, 30 ml of H_2SO_4 (1 + 5) and 6 ml of conc. HNO_3 are added, and the soln. is boiled to dissolve the Cu. Sodium hydroxide is added until a cloudiness appears, the soln. is made up to 250 ml and 25 ml are taken. In either case sodium acetate soln. is added to give a 0·1 to 1 M soln. and also methylene blue as max. suppressor. With duralumin, 0·5 ml of tartrate soln (concn. not given) is added. Oxygen is removed by the passage of H and the Cu is titrated at 0·3 V with rubeanic acid (concn. not stated) in acetic anhydride, in which it is more sol. and more stable than in ethanol.

G. S. SMITH



KHADEYEV, V. A.

Category: USSR/Analytical Chemistry - Analysis of inorganic substances. G-2

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30979

Author : Zhdanov A. K., Khadeyev V. A., Makritskaya Ye. K.
Inst : not given
Title : Amperometric Titration of Cadmium with Potassium Iodide in the Presence of Excess Pyramidon

Orig Pub: Zavod. laboratoriya, 1956, 22, No 11, 1286-1291

Abstract: Reaction of Cd^{2+} with pyramidon (I) in the presence of I is utilized for direct amperometric titration of Cd^{2+} with a solution of KI; optimal conditions of titration: concentration of I exceeding that of Cd^{2+} by 5-10 times. pH of analyzed solution prior to addition of I within 2-5 (acidity of solution is conveniently ascertained with methyl orange), concentration of Cd at least 0.002 M; titration is not interfered with by large amounts of Zn^{2+}, Mn^{2+}, Ni^{2+}, Co^{2+}, NH_4^+, SO_4^{2-}, NO_3^-, CH_3COO^-

Card : 1/2 -18-

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Card : 2/2 -19-

KHADEYEV, V.A.; ZHDANOV, A.K., otvetstvennyy red.; AYRAPETYAN, A., red. izd-va; BADEYAN, A., tekhn. red.

[Questions on the theory of amperometric] Nekotorye voprosy teorii amperometricheskogo metoda titrovaniia. Erevan, Izd-vo Erevanskogo univ. 1957. 177 p. (Tashkent. Universitet. Trudy Sredneaziatskogo gosudarstvennogo universiteta, no.92. Khimicheskie nauki, no.11). (Conductometric analysis) (MIRA 11:6)

KHADEYEV, V.A.

Amperometric, conductometric, photometric, and radiometric titration by precipitation. Izv. AN Uz. SSR. Ser. khim. nauk. no.3:29-43 '57. (MIRA 11:9)

(Titration)

KHADEYEV, V.A.

New means for determining from the experimental titration curve the end point titration, solubility of the formed product, and other factors. Izv. AN. Uz. Ser. khim. nauk no.4:55-66 '57. (MIRA 11:9)
(Titration) (Chemistry, Physical and theoretical)

KHADEYEV V. A.

AUTHOR: Zhdanov, A. K., Khadeyev, V. A., Khalilova, V. Kh. 75-6-5/23

TITLE: The Ammetric Titration of Bismuth With Potassium Iodide in the Presence of Pyramidon(Amperometricheskoye titrovaniye vismuta yodidom kaliya v prisutstvii piramidona).

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1957, Vol. 12, Nr 6, pp. 695-698 (USSR)

ABSTRACT: The possibility of an ammetric titration of bismuth in strong acid solutions in the presence of surplus pyramidon with potassium iodide is shown. With this reaction a compound of bismuthite tetraiodide is formed. The titration was carried out by means of an ordinary polarograph with a dropping mercury electrode. The presence of zinc-, manganese, nickel-, cobalt-, iron-, aluminum- and magnesium-ions in the bismuth-solution to be titrated does not disturb the determination of bismuth, even if their concentration exceeds 50 to 100 times the value of the bismuth concentration. Only lead-ions act disturbingly on the titration. Even 60 times higher concentrations of sulphates, nitrates, chlorides, phosphates and acetates have no disturbing effect on the titration.

Card 1/2

The method of titration of bismuth was also tried out with synthetic mixtures of cadmium and bismuth.
There are 4 tables, and 3 references, 3 of which are Slavic.

ASSOCIATION: Central Asian University imeni V. I. Lenin, Tashkent (Sredneaziatskiy universitet im. V. I. Lenina, Tashkent).

SUBMITTED: October 18, 1956

AVAILABLE: Library of Congress

1. Bismuth-Ammetric titration 2. Potassium iodide-Applications
3. Pyramidon-Applications

Card 2/2

SOV/137-58-11-23808

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 276 (USSR)

AUTHORS: Zhdanov, A. K., Khadeyev, V. A., Kats, A. L.

TITLE: Amperometric Titration of Trivalent Iron With Ascorbic Acid and Sodium Versenate B (Amperometricheskoye titrovaniye trekhvalentnogo zheleza askorbinovoy kislotoy i trilonom B)

PERIODICAL: Uzb. khim. zh., 1958, Nr 1, pp 27-34

ABSTRACT: More precise procedures are given for titrating Fe^{3+} with ascorbic acid (I) and sodium versenate B (II). The experiments were carried out on an ordinary visual polarographic apparatus with a revolving Pt microelectrode. It is shown that the titration of Fe^{3+} with I can be carried out within a broad range of acidity up to pH ~ 0. The optimum concentration of acid is 0.28 - 1 mole/liter. The lowest rate at which equilibrium is attained was observed close to the point of equivalence. The presence of air O_2 has no effect on the results of titration of Fe^{3+} with I. Small amounts of Fe titrate better than large amounts. The optimum condition leading to the titration of Fe^{3+} with II is an acidity of 0.1 mole/liter HCl, overrated results are produced at a higher acidity. Titration of small amounts of Fe is best done in the presence

Card 1/2

Amperometric Titration of Trivalent Iron With Ascorbic Acid and (cont.)

of an acetate buffer. A study of the effect of foreign ions showed that the results of the titration of Fe are affected by Ni and Cu and impeded by Zn and Cd only when their amount is 10-20 times higher than the Fe contents. A comparison is made between the ascorbic acid and the chelatometric methods of the titration of Fe as to their precision, reproducibility, and selectivity, as well as speed and convenience.

Yu. B.

KHADEYEV, V.A.; NIKURASHINA, A.G.

Amperometric titrations of lead in the set-up with rotating platinum microelectrode. Uzb. khim. zhur. no.2:11-20 '58. (MIRA 11:8)

1.Sredneaziatskiy gos.universitet im. V.I. Lenina.
(Lead) (Conductometric analysis)

KHADEYEV, V.A.; ZHDANOV, A.K.

Amperometic titration method for determining copper and zinc in brass and bronze type alloys. Uzb. khim. zhur. no.3:57-63 '58. (MIRA 11:9)

1. Sredneaziatskiy gosudarstvennyy universitet im. V.I. Lenina.
(Copper) (Zinc) (Conductometric analysis)

5(4)

AUTHORS: Zhdanov, A. K., Khadeyev, V. A., Mirzabekov, F. M.

SOV/75-13-6-7/21

TITLE: A Simplified Diaphragm Method of Internal Electrolysis (Uproshchennyy diafragmennyy metod vnutrennego elektroliza)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol 13, Nr 6, pp 661-663 (USSR)

ABSTRACT: In the internal electrolysis methods with diaphragm are used very rarely since there are many apparatus necessary and the process of electrolysis requires a long time because of the high electric resistance of the electrolyzer. The authors of the present paper have devised a method with diaphragm that permits a sufficiently quick separation of medium and large quantities of metals, and thus eliminates the most considerable disadvantage of this method. In order to accelerate the separation of the metal a coarsely porous glass diaphragm Nr 1 was used, the introduction of which into the electrolyzer does not cause any considerable increase in the electric resistance. The penetration of the catholyte into the anode space is avoided by producing a slight flow of the anolyte against the catholyte. This measure is only necessary during

the first 10 - 15 minutes of the electrolysis, as long as the main quantity of the metal to be determined separates from the solution. After this period a possible mixing of the solutions is no more dangerous because in view of the low concentration of the metal to be determined no cementation takes place any longer. The apparatus used are illustrated in the paper and described in detail. The operational method of this apparatus is also described in detail. As an example, copper was separated at a platinum wire-gauze cathode. Solutions of KCl and KNO_3 were used as anolytes.

It was found that the method described permits the separation of medium and even large amounts of copper. In the use of zinc or an iron anode, which is immersing into a saturated KCl solution the dissolution of the anode took place slowly and without noticeable gas formation. When using an aluminum anode, intense dissolution of the anode occurred under separation of considerable hydrogen quantities. In order to prevent the anolyte from being expelled from the anode space by the escaping gas, which would cause an interruption of the current, a spherical enlargement is provided for the reception of the

developed gas. In further experiments it was proved that the presence of iron in the form of ferrous sulfate even in double quantity does not affect the results of copper determination. Instead of potassium chloride also other alkali metal salts can be used as anolyte. The applicability of this method was tested by analyses of copper alloys which yielded very satisfactory results. There are 1 figure, 2 tables, and 3 Soviet references.

ASSOCIATION: Sredneaziatskiy gosudarstvennyy universitet im. V. I. Lenina, Tashkent (Tashkent Central Asian State University imeni V. I. Lenin)

SUBMITTED: May 29, 1957

KHADEYEV, V.A.

AUTHORS: Zhdanov, A. K., Khadeyev, V. A., Moiseyeva, G. P. 32-2-4/60

TITLE: The Amperometric Titration of Cobalt With Potassium Ferric Cyanide with Rotating Micro-Platinum Electrode (Amperometricheskoye titrovaniye kobal'ta ferritsianidom kaliya na ustanovke s vrashchayushchimsya platinovym mikroelektrodom)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 137-140 (USSR)

ABSTRACT: The experimental conditions of the method mentioned in the title were investigated and the authors found that up to 0,1 - 0, 065 mg of cobalt can be titrated with sufficient exactness. The presence of other anions does not disturb titration, as can be seen from a table, even when it is present to the 50 - 100 fold concentration of cobalt. Also the action of other metal ions was studied and it was found that by means of the addition of tartaric acid as complex former the partial precipitation of nickel with ferric cyanide (at nickel concentrations amounting to more than the

Card 1/2

The Amperometric Titration of Cobalt with Potassium Ferric Cyanide with Rotating Micro-Platinum Electrode 32-2-4/60

50-fold of that of cobalt) is made impossible and that it permits the presence of an amount of copper up to 10-times as great, as well as of an amount of iron^{3+} and chromium of up to 20 times as much. The addition of citric acid makes possible a titration in the presence of greater amounts of lead (150-fold) and bismuth (80-fold). Sodiumsulfosalicylate proved to be a good complex former for iron and other metals, while chromium with ammoniumpersulfate can be oxidized to dichromate, on which occasion cobalt can not be oxidized. Chromate-, as well as zinc- and cadmium ions do not disturb the cobalt titration. There are 1 figure, 3 tables, and 6 references, 3 of which are Slavic.

ASSOCIATION: Central Asian State University imeni V. I. Lenin (Srednaziatskiy Gosudarstvennyy universitet imeni V. I. Lenina)

AVAILABLE: Library of Congress

Card 2/2

1. Cobalt-Determination 2. Potassium ferric cyanide-Applications 3. Titration

KHADEYEV, V.A.; OKOLOVA, Ya.I.

Effect of dissolved oxygen on the results of amperometric titrations. Trudy SAGU no.134:23-41 '58. (MIRA 12:4)
(Conductometric analysis) (Oxygen)

KHALEYEV, V.A.

Methods for the determination of the end point of amperometric titration and the diffusion current constant, applicable in some particular instances. Uzb. khim. zhur. no.2:27-35 '59. (MIRA 12:7)

1.Sredneaziatskiy gos. universitet im. V.I. Lenina.
(Conductometric analysis)

KHADEYEV, V.A.; GLAZUNOVA, L.A.

Amperometric titration of copper, palladium, and cobalt with α-nitroso-β-naphthol using of rotating tantalum electrode. Uzb. khim. zhur. no.3:24-33 '59. (MIRA 12:9)

1.Sredneaziatskiy gos.universitet im. V.I. Lenina.
(Conductometric analysis) (Naphthol)

KHADEYEV, V.A.; OBEL'CHENKO, P.F.

Possibility of using a tantalum microelectrode in amperometry.
Dokl.AN Uz.SSR. no.6:31-32 '59. (MIRA 12:9)

1. Sredneaziatskiy gosuniversitet im. V.I.Lenina. Predstavleno akademikom AN UzSSR S.Yu.Yumusovym.
(Electrodes) (Conductometric analysis)

ZHDANOV, A.K.; KHADEYEV, V.A.; SHAMAKHMUDOVA, T.B.

Amperometric titration of microgram amounts of copper. Zav. lab. 25 no.9:1036-1039 '59. (MIRA 13:1)

1. Sredneaziatskiy gosudarstvennyy universitet im. V.I.Lenina.
(Copper--Analysis)

5 (2)

AUTHORS: Zhdanov, A. K., Khadeyev, V. A., Yakovenko, G. D. SOV/75-14-3-23/29

TITLE: Ammetric Determination of Cobalt by Means of an Iodometric Method on a Rotating Platinum Micro Electrode (Amperometricheskoye opredeleniye kobal'ta yodometricheskim metodom s vrashchayushchimsya platinovym mikroelektrodom)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 3, pp 367-369 (USSR)

ABSTRACT: Recently (Ref 1) an iodometric method for the determination of cobalt in ammoniacal medium was suggested where no partial oxidation of cobalt by atmospheric oxygen takes place. This suggestion was further developed by the authors on the basis of a device previously described with rotating micro electrode (Ref 2) in which connection the endpoint of the titration is determined ammetrically. Since the reaction proceeds too slowly when the excess iodine is missing, iodine is added in excess and titrated back with sodium arsenite. Table 1 shows the average values of an analysis series, table 2 the small influence exercised by foreign anions and cations. There are 2 tables and 2 references, 1 of which is Soviet.

Card 1/2

Ammetric Determination of Cobalt by Means of an Iodometric Method on a Rotating Platinum Micro Electrode SOV/75-14-3-23/29

ASSOCIATION: Sredneaziatskiy gosudarstvennyy universitet im. V. I. Lenina, Tashkent (Central Asia State University imeni V. I. Lenin, Tashkent)

SUBMITTED: March 18, 1958

Card 2/2

5(2)

AUTHORS: Khadeyev, V. A., Nikurashina, A. G. SOV/32-25-3-8/62

TITLE: Determinations of Lead According to the Anodic Ammetric Method (Opredeleniye svintsa anodnym amperometricheskim metodom)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, pp 283 - 285 (USSR)

ABSTRACT: An anodic-ammetric method is described according to which lead is titrated with potassium bichromate. It is based on the formation of a polarographic current which forms due to the oxidation of the lead-ions to lead oxide on the Pt-microanode. A titration at pH<4 may take place in the presence of an acetate ionic excess. The titration was carried out by means of a regular apparatus with a rotating Pt-microanode (800 rpm) and a calomel element as a standard electrode. The obtained titration curves revealed a marked L-shape. At lead concentrations below 0.2 mg/ml titration must be carried out with an addition of 10-15% alcohol. A content of only 0.05 mg/ml Pb can be determined (Table 1). Ions such as Ca, Sr, Mg, Zn, Cu, and Cd as well as the anions Cl^-, NO_3^-, and

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CH_3COO^- do not disturb titration (Table 2). In the presence of iron or aluminum an acetate buffer must be added to the hot solution to be titrated since the lead ions are adsorbed by the brine of the cold iron acetate (or Al acetate). Small amounts of manganese and nickel produce no disturbances. Cobalt has a disturbing effect also in small concentrations. A method of analyzing lead bronzes (4.33% Pb) was devised. There are 2 tables and 2 references, 1 of which is Soviet.

ASSOCIATION: Sredneaziatskiy gosudarstvennyy universitet im. V. I. Lenina (Central Asian State University imeni V. I. Lenin)

SOV/32-25-9-4/53

5(2)

AUTHORS: Zhdanov, A. K., Khadeyev, V. A., Shamakhmudova, T. B.

TITLE: Amperometric Titration of Microgram Quantities of Copper

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 9, pp 1036-1039 (USSR)

ABSTRACT: In the present case, experiments of a titration of microquantities of copper with rubeanic acid (R) were carried out in a common apparatus with rotating platinum microelectrodes, the application of solid microelectrodes in amperometric titration being more advantageous as compared to the Hg-drop-electrodes. Alcoholic (R)-solutions, and in some cases, aqueous, or solutions of (R) in acetic acid anhydride were used. Sodium acetate served as the polarographic background. The experiments showed that the alcoholic and aqueous solutions of (R) change the titre when settling, so that the titre must be controled periodically. The solutions of (R), in acetic acid anhydride, are more stable, they may not, however, be used for the titration of small quantities of copper. Titrations of various quantities of copper in 0.15 m sodium acetate solutions were carried out to test the reproducibility and accuracy of the

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method. The results show that (Table 1) a considerable increase in sensitivity was attained by the exchange of the Hg-drop-electrode with a rotating platinum electrode. The cations of the following elements did not disturb the titration: Mg, Ca, Sr, Ba, Zn, Mn, Al, Pb, nor did the following anions: SO_4^{2-}, NO_3^-, Cl^-, CH_3COO^-. Instead of sodium acetate a biphthalate solution with sodium fluoride (Ref 5) must be used in the presence of larger quantities of nickel, cobalt, chromium, or iron (Table 2). The method described was tested on samples of duralumin 69a and steel (rapid-cutting-tool-steel 197); in the latter, copper was separated electrolytically (Ref 7). The separated copper was dissolved in nitric acid and titrated according to the present method (Table 3). There are 3 tables and 7 references, 6 of which are Soviet.

ASSOCIATION: Sredneaziatskiy gosudarstvennyy universitet im. V. I. Lenina ((Soviet) Central Asia State University imeni V. I. Lenin)

Card 2/2

KHADEYEV, V.A.; ZHDANOV, A.K.; RECHKINA, L.G.

Use of chloramine-T in amperometry. Uzb. khim. zhur. no.6:28-37 '60. (MIRA 14:1)

1. Tashkentskiy gosuniversitet im. V.I.Lenina.
(Chloramine-T) (Conductometric analysis)

30659
S/153/60/003/02/07/034
B011/B003

5.5400

AUTHORS: Khadeyev, V. A., Kvashina, F. F.

TITLE: Direct Ammetric Titration of Zirconium by Means of Complexon III and a Rotating Tantalum Microelectrode

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 2, pp. 250-257

TEXT: In the article under review the authors intended to develop the above titration method. For this reason they examined the polarographic behavior of the complexon III in the anodic region on a platinum- and on a tantalum electrode. Thus, they proved that complexon is capable of oxidation in acid and neutral solutions, i.e., at a potential which is more negative by some tenths of volts than the potential at which oxygen begins separating. The authors established the possibility and the optimum conditions of the titration of zirconium on the basis of the anodic current of the complexon III. The rotating tantalum electrode was

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Direct Ammetric Titration of Zirconium by Means of Complexon III and a Rotating Tantalum Microelectrode

S/153/60/003/02/07/034
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used as an indicator electrode. This method enabled the titration of both small and large amounts of zirconium in a medium of sulfuric acid, nitric acid and hydrochloric acid with a high degree of accuracy. Finally, the authors studied the influence of several strange anions and cations on the titration of zirconium. They are as follows: Sulfates of aluminium, zinc, cobalt, manganese, beryllium, titanium, cadmium and hydrazine, nitrates of chromium, thorium, lead, copper (with or without sodium tartrate), mercury (II) (with ot without NaCl); chlorides of nickel, cerium (III), and hydroxyl amine; of uranyl acetate, ammonium vanadate, ammonium molybdate, and sodium tungstate with sodium tartrate (Table 3). Most of the ions mentioned do not disturb the determination of zirconium by means of the method suggested. The volt-ampere curves of the complexon III are shown on the background of 1 N sulfuric acid in Fig. 1. The construction of the rotating tantalum electrode is represented in Fig. 2. The titration curves of zirconium with complexon III at various concentrations of the sulfuric acid in the solution to be titrated are given in Fig. 3. The results of titration

ZHDANOV, A.K.; KHADEYEV, V.A.; ISHANKHODZHAYEV, S.D.

Amperometric titration of bismuth by means of a complexonometric anode method employing a tantalum microelectrode. Uzb. khim. zhur. no.3:29-35 '60. (MIRA 13:10)

1. Sredneaziatskiy gosudarstvennyy universitet imeni V.I. Lenina.
(Bismuth--Analysis) (Tantalum)

KHADEYEV, V.A.; KVASHINA, F.F.

Direct amperometric titration of zirconium by complexon III with a rotating tantalum microelectrode. Izv.vys.ucheb.zav.; khim.i khim.tekh. 3 no.2:251-257 '60. (MIRA 14:6)

1. Srednеaziatskiy gosudarstvennyy universitet imeni V. I. Lenina, kafedra analiticheskoy khimii.
(Zirconium--Analysis)
(Tantalum)

ZHDANOV, A.K.; KHADEYEV, V.A.; KUBRAKOVA, A.I.; BONDARENKO, N.V.

Amperometric titration of some reducing agents by means of iodine chloride in an apparatus with a rotating platinum microelectrode. Uzb.khim.zhur. no.2:44-50 '61. (MIRA 14:10)

1. Tashkentskiy gosuniversitet imeni Lenina.
(Conductometric analysis) (Iodine chloride)

KHADEYEV, V.A.; SARAYEVA, O.P.

Determination of small quantities of fluorine by the modified volumetric Starck method. Uzb.khim.zhur no.3:11-14 '61. (MIRA 14:11)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
(Fluorine--Analysis)

KHADEYEV, V.A.

Determination of the solubility of lead fluoride, fluochloride, and fluobromide from curves of the amperometric titration of sodium fluoride with lead nitrate. Uzb.khim.zhur. no.5:32-36 '61. (MIRA 14:9)

1. Tashkentskiy gosuniversitet im. V.I. Lenina.
(Lead halide) (Solubility)

KHADEYEV, V.A.

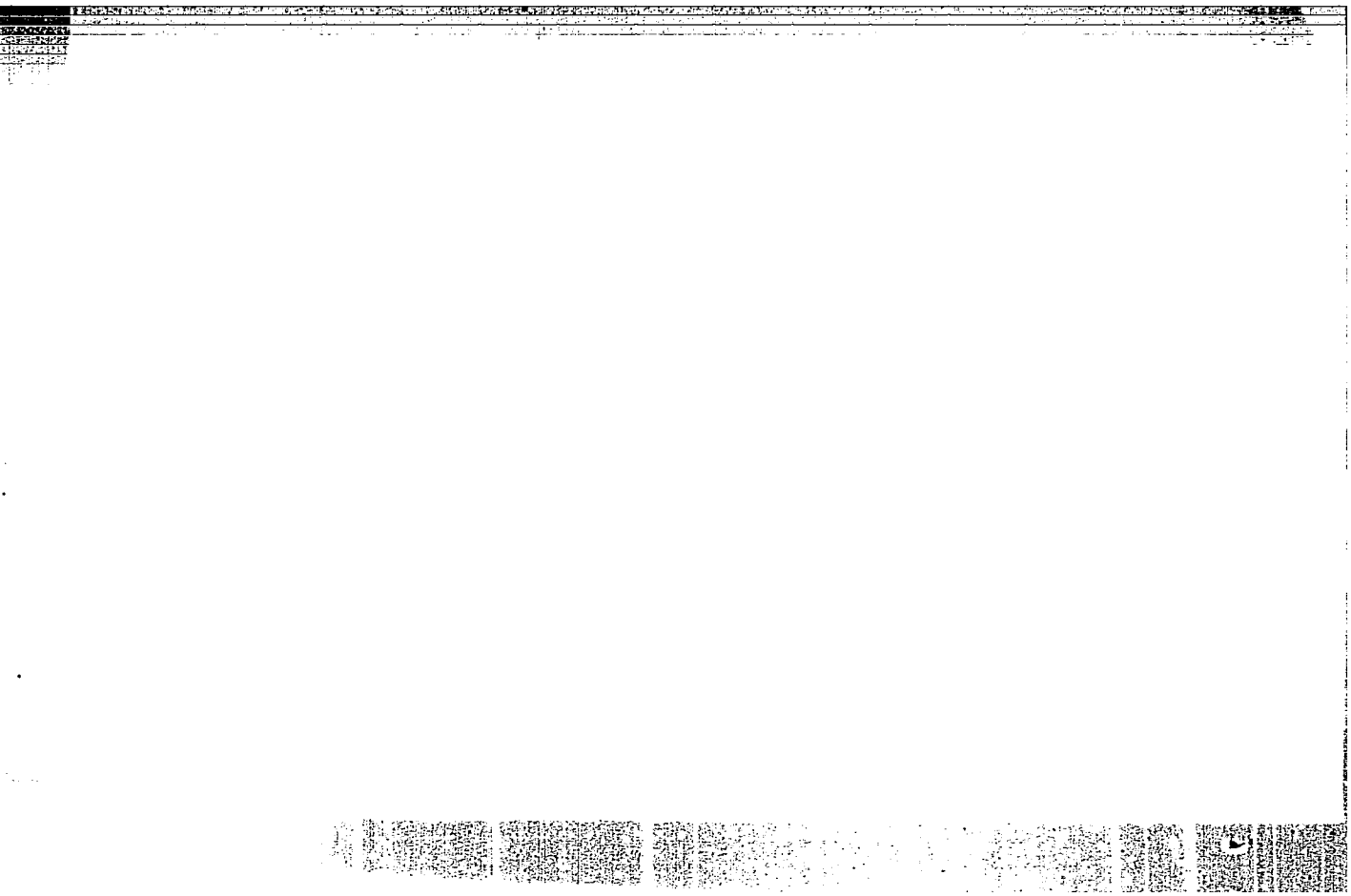
Trilonometric titration of trivalent thallium by the anodic amperometric method. Zav.lab. 28 no.8:913-917 '62. (MIRA 15:11)

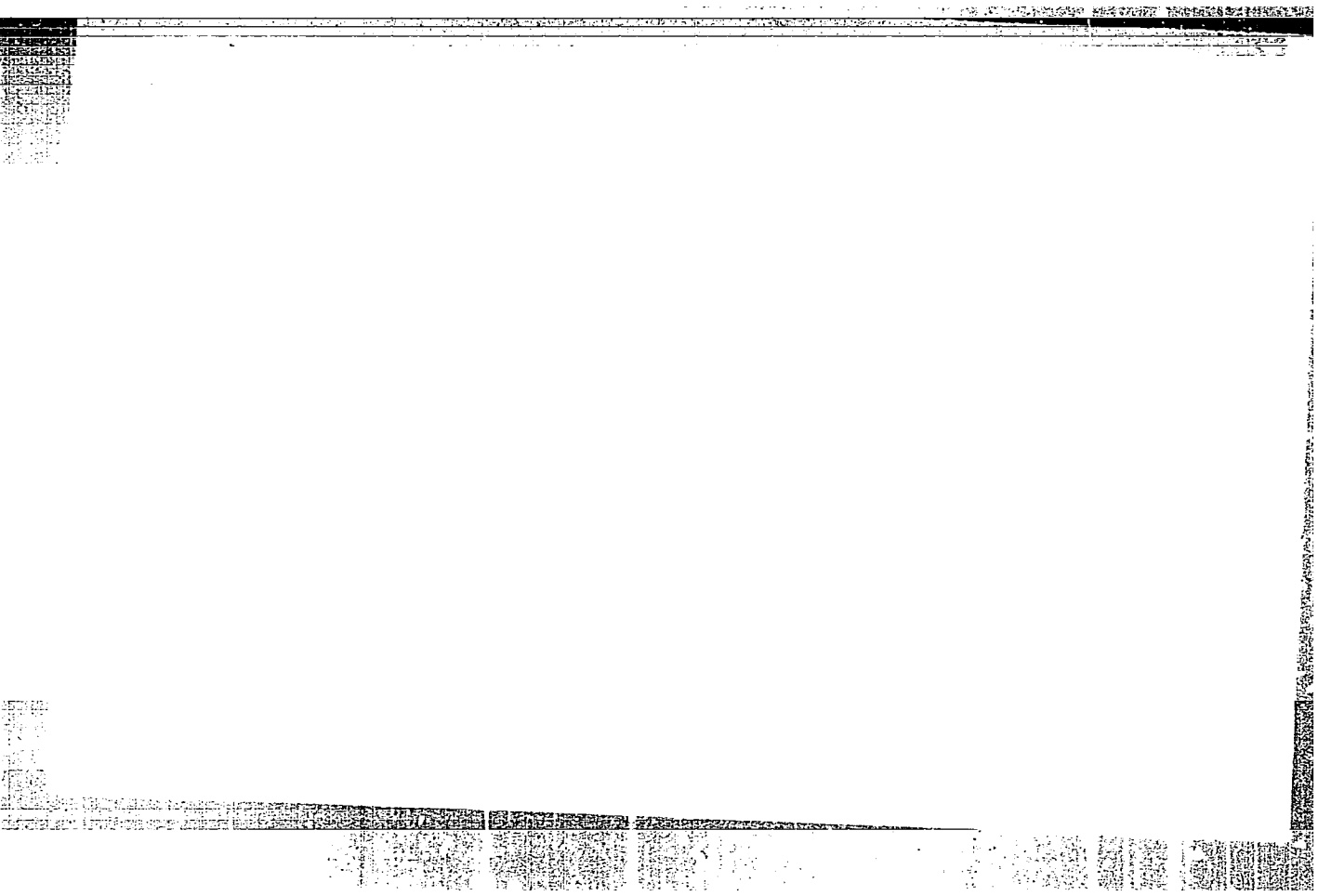
1. Tashkentskiy gosudarstvennyy universitet imeni V.I.Lenina.
(Thallium--Analysis) (Conductometric analysis)

KHADEYEV, V.A.; BAZAROV, I.

Anode amperometric method of the direct titration of indium with complexon III. Uzb.khim.zhur. 6 no.5:47-53 '62. (MIRA 15:12)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
(Indium—Analysis) (Conductometric analysis) (Complexons)





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KHADIYEV, R.A.

Geographical distribution of cotton-growing in the northeastern districts of Kashka-Dar'ya Province. Uch.zap. Tashk.gos.ped.inst. no.18:59-72 '59. (MIRA 13:9)
(Kashka Dar'ya Province--Cotton-growing)

KHADKEVICH, TARAS

Description - Minsk

Regenerated city. Mol. kolkh., No. 7, 1952

Monthly List of Russian Accessions, Library of Congress November 1952 UNCLASSIFIED

GRAKHOVSKIY, S.[Hrakhouski,S.]; KARPOV, Ul.[Karpau, Ul.]; SABALENKA, R.; KHADKEVICH, T.; GONCHAROV, I. [Hancharou, I.], red.

[We will tell about Minsk] My raskazham pra Minsk. Minsk, Belarus', 1964. 241 p. (MIRA 18:8)

KRAVCHENKO, Ivan Sergeyevich [Krauchanka, I.]; ROMANOVSKIY, M. [Romanouski, M.]; KHADKEVICH, T.

[White Russian Soviet Socialist Republic] Belaruskaia Savetskaia Satsyialistychnaia respublika. Minsk, Dziar.vyd-va BSSR, 1958. 294 p. (MIRA 13:2)

(White Russia)

KHADKEVICH, Taras; LUK'YANOVICH, I., red.; SLAVYANIN, L., tekhn. red.

[White Russia, my homeland] Maia Belarus'. Minsk, Derzh. vyd-vo BSSR. Red. masava-palit.lit-ry, 1961. 98 p. (MIRA 15:1)
(White Russia--Description and travel)

KHADKEVICH, Taras; LUK'YANOVICH, I., red.; STEPANOVA, N., tekhn. red.

[My White Russia; a sketch] Moia Belorussiia; ocherk. Minsk, Izd-vo "Belarus'," 1963. 158 p. (MIRA 17:3)

KHAD'NASH

RUMANIA/Chemical Technology - Electro-Chemical Industries. H.
Electroplating. Chemical Current Sources.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54552

Author : Khad'nash, Angel

Inst : Politehn. Bucuresti.

Title : Behavior of Nickel Plated Anodes in Potassium Permanganate Derivation.

Orig Pub : Bul. Inst. politehn. Bucuresti, 1956, 18, No 3-4, 199-204

Abstract : Nickel plating of anodes was made at 70-80°C and Dk = 10 á/m^2 in an electrolyte containing (in g/l): $NiSO_4 \cdot 7H_2O$ -350, and H_2SO_4 -5). The anodes were heated up to 300°C. for one hour and then kept at 950-1000°C. for 20-60 minutes in order to decrease the porosity and to increase the strength of the plating on the

Card 1/2

H.

RUMANIA/Chemical Technology - Electro-Chemical Industries, Electroplating, Chemical Current Sources.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54552

steel. When nickel plated anodes (NA) were used, the BT of K_2MnO_4 was increased 15%, independent of the electrolyte concentration. The largest BT corresponds to a temperature of 60°C. The relative corrosion resistance of steel, nickel and NA each having a various thickness of Nickel coating was studied by the technique of immersing them into a solution of the following composition (in g/l): K_2MnO_4 92, KOH 350. The electrolysis takes palce at 60°C. and D_a = 8 a/ m^2. The corrosion of the anodes was determined gravimetrically. Steel amodes corrode 20 to 40 times faster than NA. When the nickel layer on NA is 200μ thick and to which thermal treatment was applied, its resistance approaches the resistance of nickel cathodes.

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On L. I. Kadaner's Proposed Criteria for Uniform Cathodic Distribution of Metals. N. P. Ganelin and G. G. Khaĭmasn (*Zhur. Prikład Khim.*, 1952, 25, (10), 1114–1117 (in Russian); *J. Appl. Chem. U.S.S.R.*, 1952, 25, (10), 1177–1179 (in English).—A criticism of the work of K. (*ibid.*, 1951, 24, 1033; preceding abstract). M/M_1 cannot be equivalent to n'/n both on dimensional grounds and on consideration of the case in which the current efficiency is independent of c.d. Many of the expressions which K. derives are incorrect, owing to the wrong sign being introduced during differentiation, but apart from this K.'s method for obtaining the relation between D and l is needlessly complex. Although K. criticizes the errors of Haring and Blum (*Trans. Amer. Electrochem. Soc.*, 1923, 44, 313; see *J. Inst. Metals* (Abstracts), 1923, 29, 743), he himself repeats them in his work.—G. V. E. T.

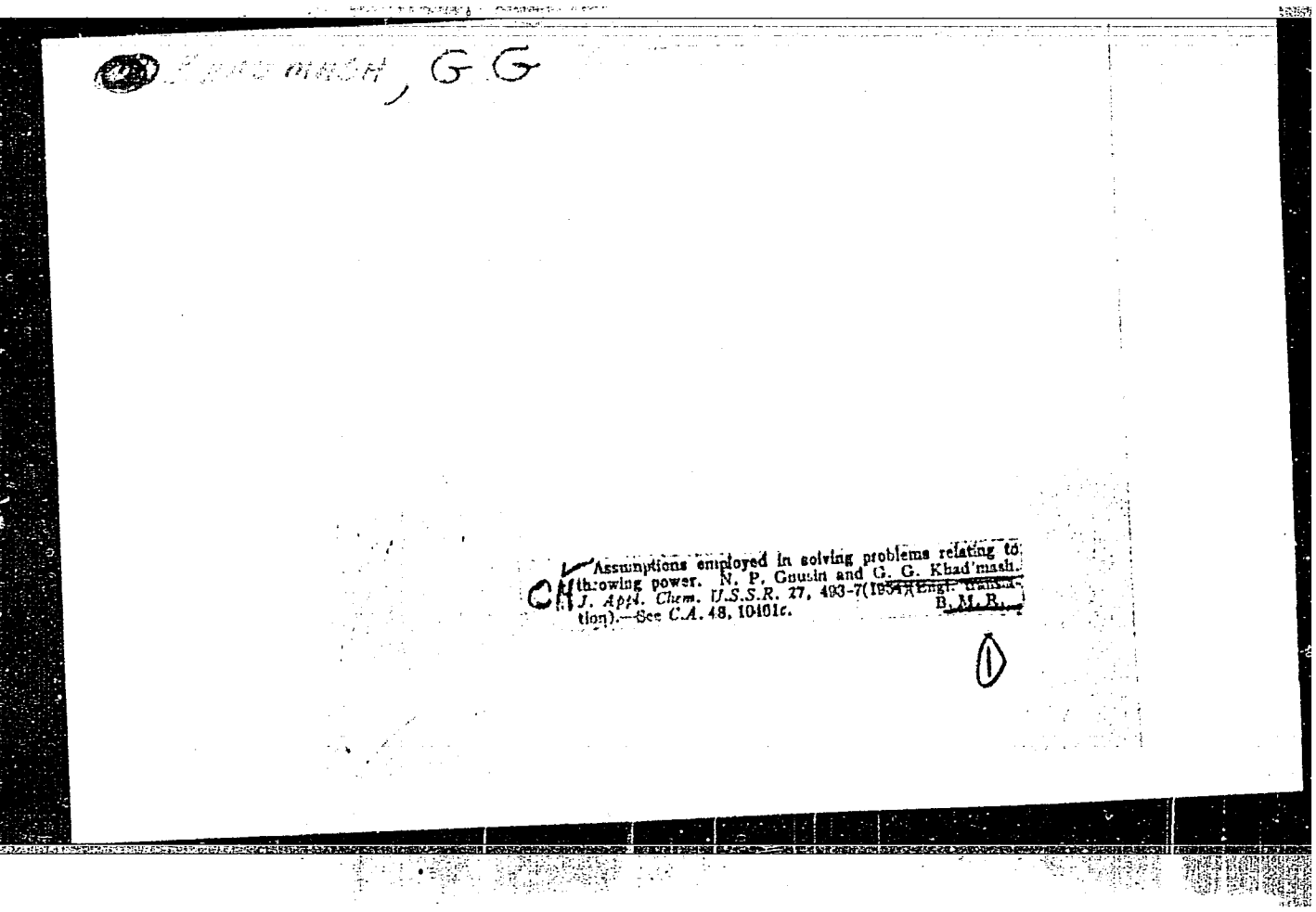
KADANER, L.I.; GNUSIN, N.P.; KHAD,'MASH, G.G.

Again on the criterion of the uniformity of distribution of metal on a cathode. Zhur.prikl.khim. 26 no.7:770-774 Jl '53. (MLRA 6:7)
(Electroplating) (Gnusin, N.P.) (Khad'mash, G.G.)

KHADIYEVA, G. C.

Dissertation: "An Electrochemical Method for Removing Zinc From Galvanized Iron." Cand Tech Sci, Leningrad Technological Institute, Leningrad, 1954. (Referativnyy Zhurnal-Khimiya, No 1, Moscow, May 54)

SO: SUM 318, 23 Dec 1954



KHAD'MASH, G G

Assumptions employed in solving problems relating to throwing power. N. P. Gnusin and G. G. Khad'mash. *J. Appl. Chem. U.S.S.R.* 27, 493-7(1954)(Engl. translation).—See *C.A.* 48, 10401c. B. M. R.

(1)

KHAD'MASH, G. G.

AID P - 919

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 10/22

Authors : Gnusin, N. P. and Khad'mash, G. G.

Title : Some assumptions used in solution of problems of dispersibility

Periodical : Zhur. prikl. khim., 27, no. 5, 533-538, 1954

Abstract : Various attempts at quantitative determination of dispersibility are reviewed. Four diagrams. 17 references (10 Russian: 1935-1953).

Institution : None

Submitted : Mr 27, 1953

KHAD'MASH, G.G.

AID P - 3927

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 10/19

Authors : Fedot'yev, N. P. and G. G. Khad'mash

Title : Electrochemical method of recovering zinc from galvanized iron.

Periodical : Zhur. prikl. khim., 28, 10, 1104-12, 1955

Abstract : The process consists of treating galvanized iron scrap with a sodium hydroxide solution, removing iron from the electrolyte, and recovering zinc by electrolysis. A detailed description of the process is given. Seven tables, 3 diagrams, 10 references, 6 Russian (1949-53).

Institution : None

Submitted : F 13, 1954

KHADNAD', Ch.; KHORVAT, Ye.; SENTKIRALI, I.; IMRE, B.; YERDELI, A.; GANTS, A.

Treatment of acetonemic vomiting in children with vitamin B_{12}. Pediatriia no.10:21-22 '61. (MIRA 14:9)

1. Iz II kliniki vnutrennikh bolezney i kliniki detskikh bolezney Tyrgu-Mureshskogo mediko-farmatsevticheskogo instita, Rumyniya.
(ACETONEMIA) (VOMITING) (CYANOCOBALAMINE)

SABO, I.; ADOR'YAN, S.; KHADNOD', Ch.; KIFOR, I.; MODI, I.

Effect of tuberculostatic substances on some functions of the liver. Pat. fiziol. i eksp. terap. 9 no.1:73 Ja-F '65. (MIRA 18:11)

1. Kafedra fiziologii i II terapevticheskaya klinika Mediko-farmatsevticheskogo instituta, Tyrgu-Muresh, Rumyniya.

S/081/62/000/001/018/067
B156/B101

AUTHOR: Khadobash, B.

TITLE: Details of the analytics of thorium

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 144, abstract 1D77 (Acta chim. Acad. scient. hung., v. 28, nos. 1-3, 1961, 207-216)

TEXT: Methods of decomposing substances containing Th and of separating Th from accompanying elements were verified using the isotope Th^{234}. It is shown that melting specimens with $KHSO_4$ ensures the most complete decomposition. In this case, the melt is dissolved in diluted HCl, SiO_2 and TiO_2 filtered off from the solution, and Th, Fe and Al precipitated from the filtrate by an NH_4OH solution; the precipitate is dissolved in diluted HCl, and the Th determined photometrically by means of thoron. It is recommended that the Fe^{3+} be reduced by means of l-ascorbic acid, which reduces it fully

Card 1/2

S/081/62/000/001/018/067
B156/B101

Details of the analytics of thorium

and rapidly to Fe^{2+}. In this case, the presence of 20 mg of Fe^{3+} in 50 ml of the solution being analyzed causes no great error. To make the photometric determination of Th by means of thoron more sensitive, it is recommended that 50% by volume of ethanol should be introduced. The error in determining 0.01-1.0% of Th is 5%; when determining 0.005-0.01% of Th the error rises to 10%. [Abstracter's note: Complete translation.]

Card 2/2

KHADORCHENKO, V. V.

"Scientific-Atheist Propaganda in the Teaching Process" by Candidate of Historical Studies, V.M. Primak, Candidate of Chemical Sciences V.V. KHADORCHENKO and Candidate of Technical Sciences B. I. Zolin. Vestnik vysshei shkoly, #3, March [published in April], pp. 21-25

SO: Current Digest of Soviet Press, VII:15, 25 May 55, p.7, Unclassified.

KHADROS, B.A.; ABRAMOVA, G.T.

Industrial and technical education of specialists and the technical propaganda. Shvein.prom. no.3:33-34 My-Je '62.
(MIRA 15:6)

(Clothing industry) (Employees, Training of)

KOVAL', Yu.N.; KHADROS, L.G.

Effect of plastic deformations of the gamma phase on hardening with subsequent martensite transformation of iron-nickel alloys. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.18: 69-73 '64 (MIRA 17:8)

LOBODYUK, V.A.; KHADROS, L.G.

Reorientation of crystals of the γ' -phase during martensite transformation. Fiz. met. i metalloved. 18 no.4:573-579 O '64. (MIRA 18:4)

1. Institut metallofiziki AN UkrSSR.

ACC NR: AP6036318 SOURCE CODE: GE/0030/66/018/011/0379/0390

AUTHOR: Moskalenko, S. A.; Khadshi, P. I.

ORG: Institute of Applied Physics, Academy of Sciences of the Moldavian SSR, Kishinev

TITLE: Infrared absorption by excitons due to photoionization and intraband lattice scattering

SOURCE: Physica status solidi, v. 18, no. 11, 1966, 379-390

TOPIC TAGS: IR absorption, absorption coefficient, exciton absorption, quantum mechanics, photoionization, carrier scattering, semiconductor laser

ABSTRACT: A quantum mechanical theory is presented for infrared absorption by excitons due to photoionization and intraband lattice scattering. An investigation was made of the coefficient of infrared absorption by excitons in order to evaluate accurately the role of excitons in laser operation in semiconductors. Infrared absorption by excitons may take place as the result of the following processes: 1) Transitions from one discrete level of the internal motion of the exciton to other discrete levels, 2) transitions between discrete levels of two different series of the exciton, 3) photoionization, 4) photoionization with simultaneous band-to-band transition of the electron or hole, and 5) intraband scattering of the excition by acoustical and optical phonons. Only the third and fifth cases were considered. Taken into account were the interaction between excitons

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ACC NR: AP6036318

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721630002-0"

and acoustical and optical phonons and the Maxwell and Bose-Einstein exciton distribution functions. The first- and second-order perturbation-theory approximations, which are valid for the range of frequencies c q, were employed. This range is much greater than τ_{rel}^{-1}, where τ_{rel} is the relaxation time of excitons ($c\,q\,\tau_{rel} \ll 1$). The Hamiltonian was derived for the interaction of excitons with the infrared radiation field responsible for the processes of exciton scattering. The absorption coefficient $\gamma(q)$ due to photoionization of excitons was calculated for materials in which the existence of direct excitons with a wave vector $\vec{k}$ lying at the center of the Brillouin band has been established. For Cu_2O, Ge, InP, and GaSb, $\gamma(q)$ was plotted as a function of ncq/I_{1s} for the following exciton concentrations: 10^{12} cm^{-3} in Ge, 10^{13} cm^{-3} in Cu_2O, and 10^{14} cm^{-3} in InP and GaSb crystals. The effect of the exciton photoionization is observable at the threshold frequency at comparatively low exciton concentrations. Orig. art. has: 30 formulas, 3 figures, and 1 table. [WA-14]

SUB CODE: 20/ SUBM DATE: 22Mar66/ ORIG REF: 012/ OTH REF: 016/

Card 2/2

L 10704-63 EPR/EWP(j)/EPF(c)/EPF(n)-2/EWT(m)/BDS/ES(v)/ES(w)-2--AFFTC/
ASD/SSD--Ps-4/Pc-4/Pr-4/Pu-4/Pe-4/Pab-4--RM/WW
ACCESSION NR: AP3002022 S/0195/63/004/003/0475/0479

AUTHOR: Maksim, I.; Braun, T. ; Khaduk, P.

TITLE: Apparatus for investigating catalytic properties during irradiation in an atomic reactor

SOURCE: Kinetika i kataliz, v. 4, no. 3, 1963, 475-479

TOPIC TAGS: irradiation apparatus, catalytic reaction chamber

ABSTRACT: An apparatus having the form of a cylindrical tube was designed and constructed in order to be able to study radiation effects on the catalytic properties of solid catalysts which appear during the process of irradiation. The installation was made in one of the horizontal channels of a 2000 kilowatt, type VVR-S [Abstractor's note: the designation may be in Latin and would thus read: BBP-C], reactor located in the Institute of Atomic Physics in Bucharest. The following requirements were applied in the construction: the use of materials which became least radioactive; securing of biological safeguards; fast and safe introduction and removal of the catalyst from the reaction chamber; the use and control of temperatures up to 450C in the reaction chamber; and the cooling of the external parts of the apparatus for protection of the reactor channel from overheating.

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L 10704-63
ACCESSION NR: AP3002022

The materials used for the apparatus were mainly aluminum and quartz; the others, used of necessity, were for example nichrome for the furnace windings and asbestos for thermal insulation. Paraffin and lead were used for biological protection. The above apparatus can be used to study gaseous reactions catalyzed by solid catalysts, for example, the oxidation of CO, decomposition of water, hydrogenation of ethylene, and the hydrogen-deuterium displacement reaction. The catalysts could be shaped in any way or deposited on backing of asbestos, kieselguhr, carbon, or silica. The action of various semiconducting oxide catalysts on the oxidation of CO is presently being investigated. Orig. art. has: 4 figures.

ASSOCIATION: Institut atomnoy fiziki, Rumania, Bucharest (Institute of Atomic Physics)

SUBMITTED: 09Apr62 DATE ACQ: 12Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 000 OTHER: 000

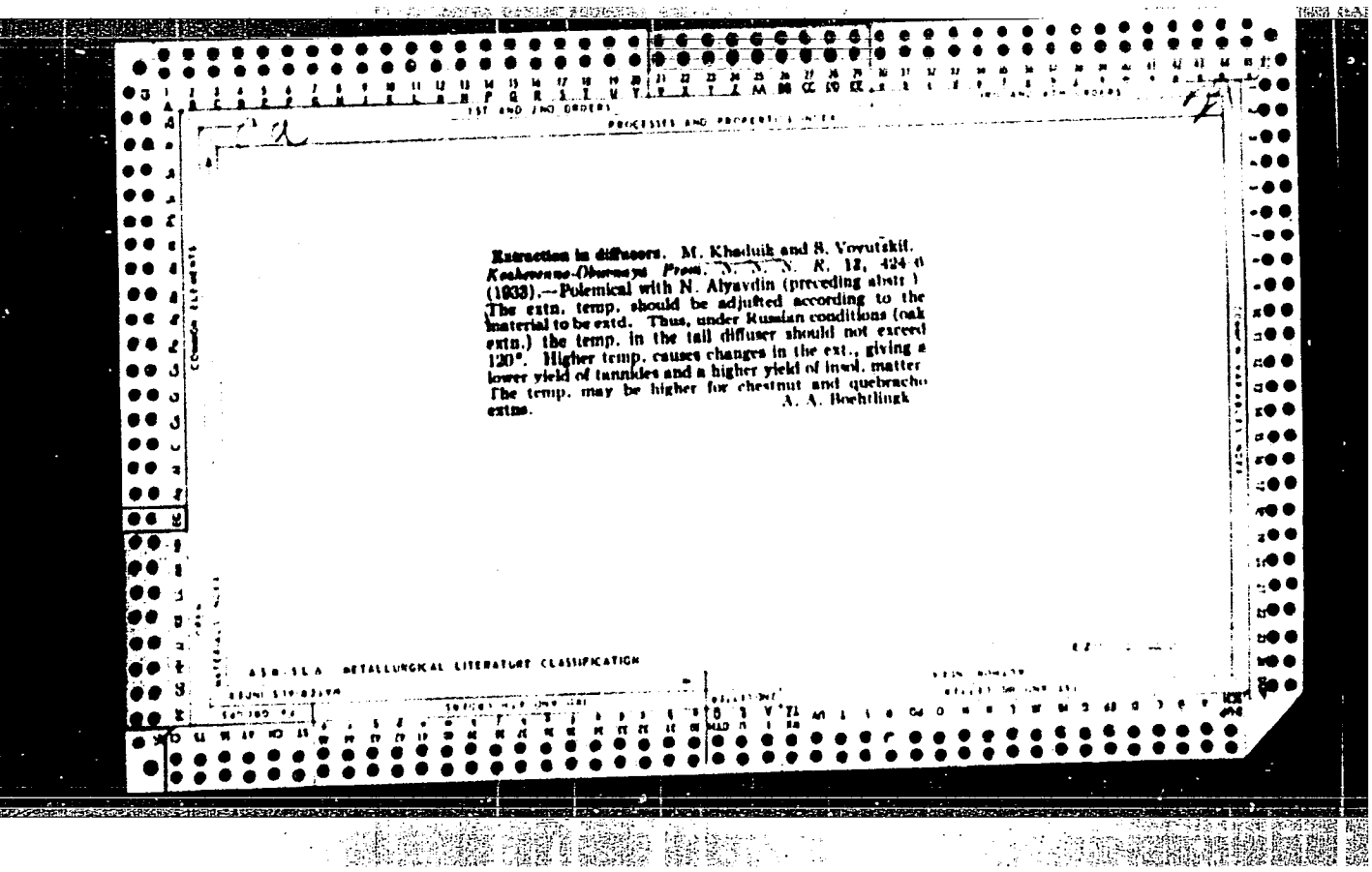
Ja/Lm

Card 2/2

MARKO, S. [Marko, S.]; KHADUSHFALVI, I. [Hadušfalvi, I.]; ENZHEL, D. [Enzsol, G.]

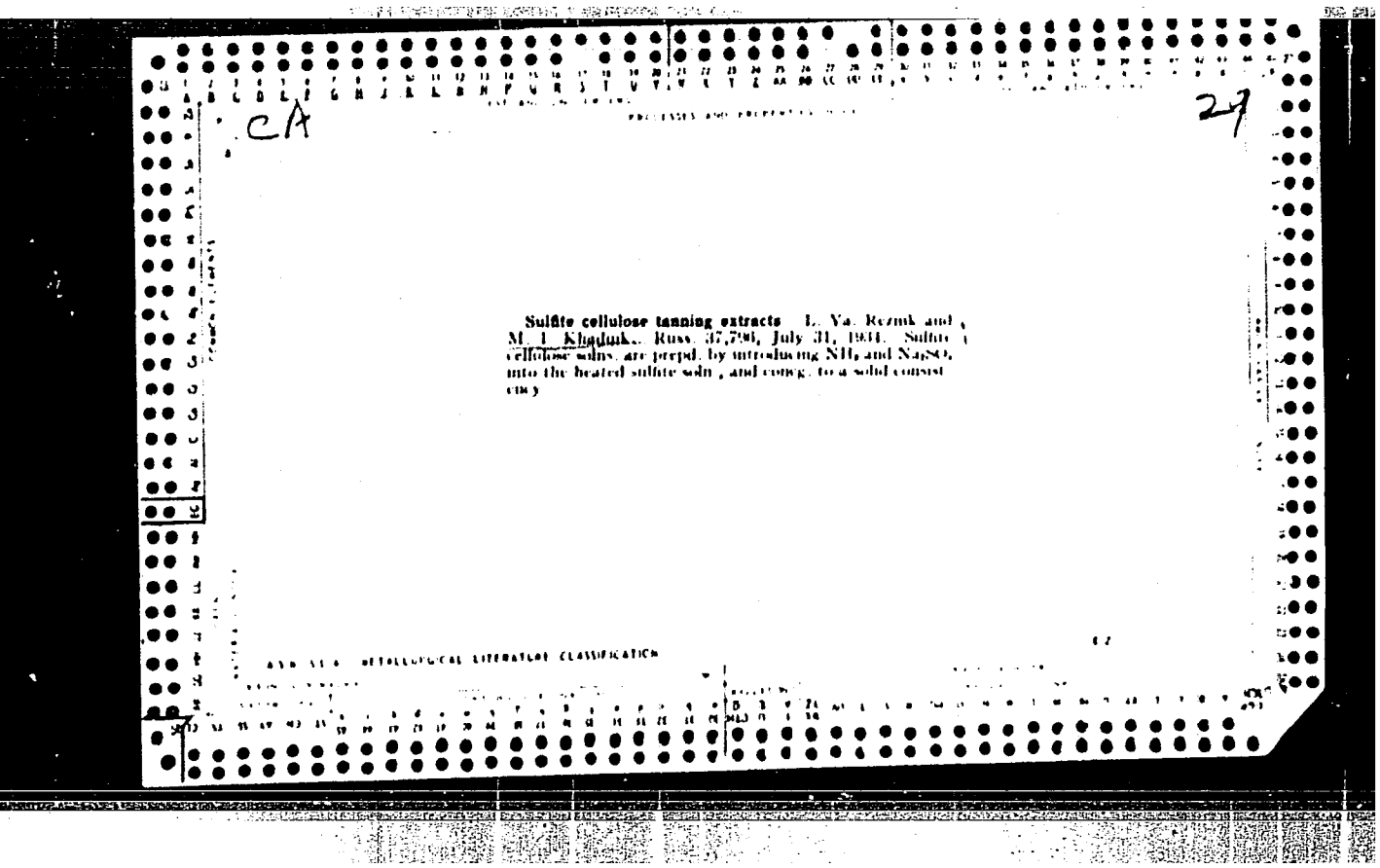
Some problems relating to ferrite isolators. Acta techn Hung 42 no.1/3:163-170 '63.

1. Nauchno-issledovatel'skiy institut svyazi, Budapesht.



Extraction in diffusers. M. Khaduik and S. Vovutskii. *Koksovanie-Obogasch Prom.* N. K. N. *R.* 12, 424-6 (1933).—Polemical with N. Alyavdin (preceding abstr.) The extn. temp. should be adjusted according to the material to be extd. Thus, under Russian conditions (oak extn.) the temp. in the tail diffuser should not exceed 120°. Higher temp. causes changes in the ext., giving a lower yield of tannides and a higher yield of insol. matter The temp. may be higher for chestnut and quebracho extns.

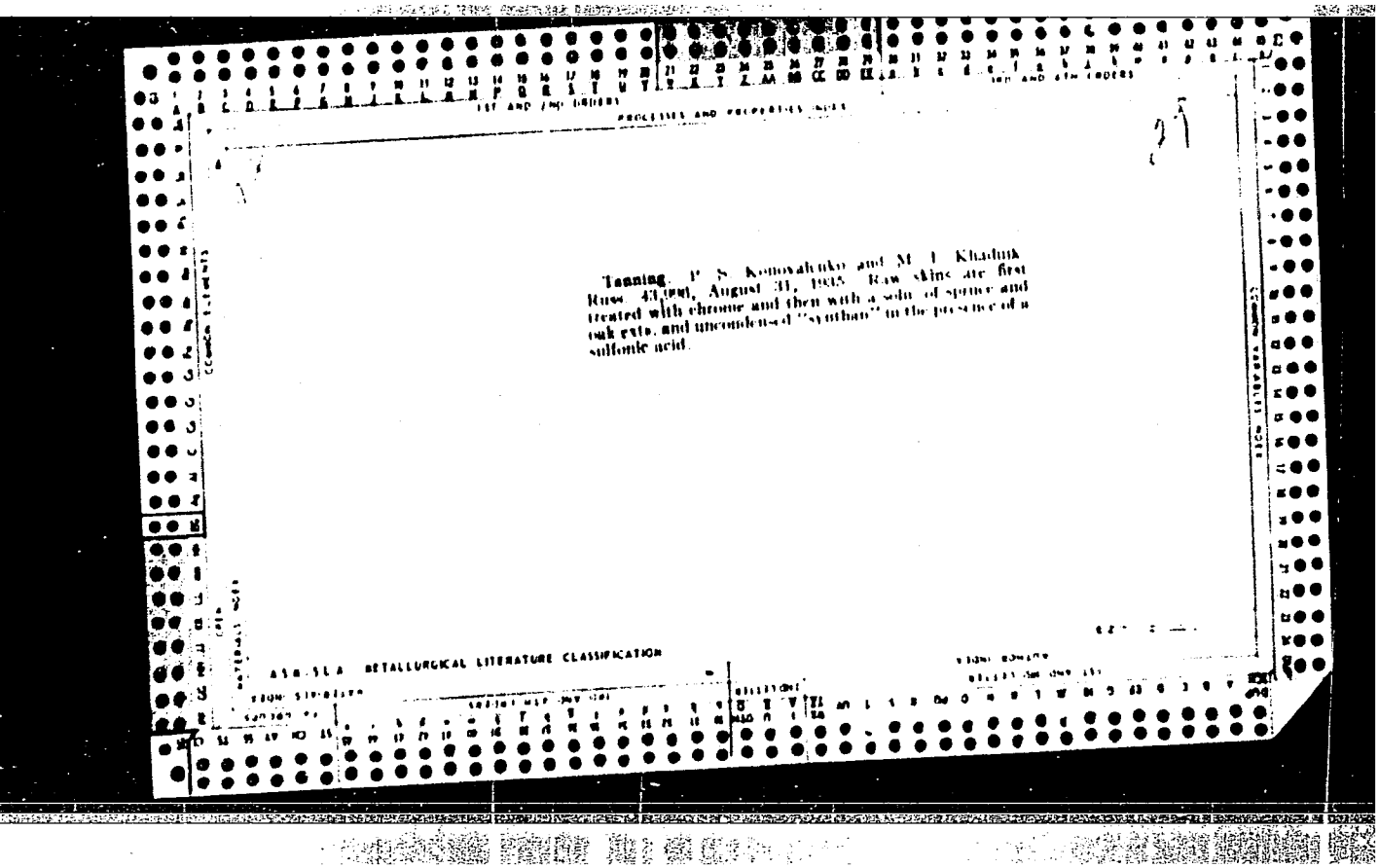
A. A. Boehtlingk



CA

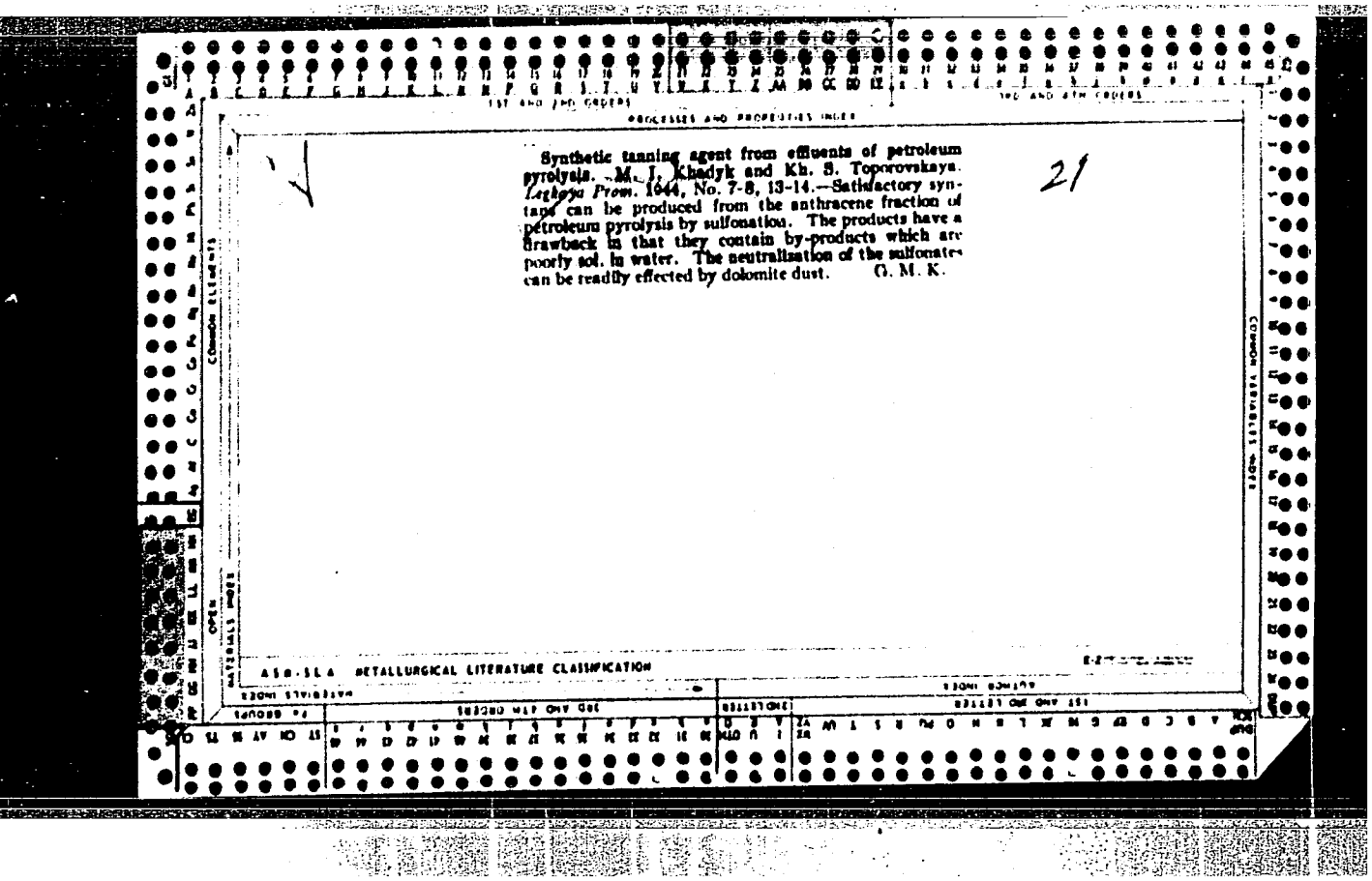
27

Sulfite cellulose tanning extracts L. Ya. Reznik and M. I. Khalturk. Russ. 37,798, July 31, 1934. Sulfite cellulose solns. are precpd. by introducing NH_3 and Na_2SO_4 into the heated sulfite soln., and concg. to a solid consistency.



Tanning. P. S. Komovshuko and M. I. Khudnik. Russ. 43,[illegible], August 31, 1935. Raw skins are first treated with chrome and then with a soln. of spruce and oak extn. and uncondensed "synthan" in the presence of a sulfonic acid.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Synthetic tanning agent from effluents of petroleum pyrolysis. M. I. Khadyk and Kh. S. Toporovskaya. *Legkaya Prom.* 1944, No. 7-8, 13-14.—Satisfactory syntans can be produced from the anthracene fraction of petroleum pyrolysis by sulfonation. The products have a drawback in that they contain by-products which are poorly sol. in water. The neutralization of the sulfonates can be readily effected by dolomite dust. G. M. K.

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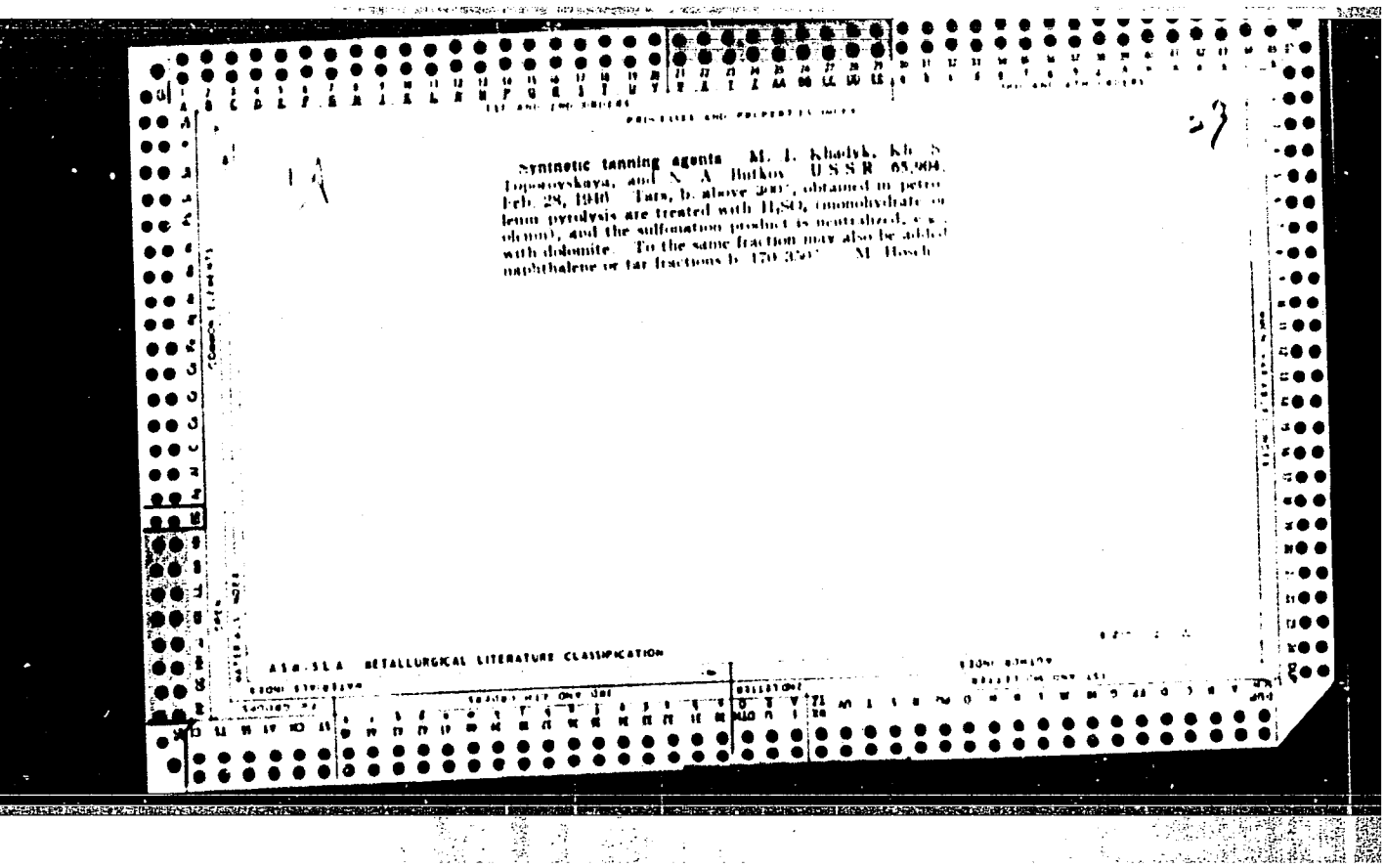
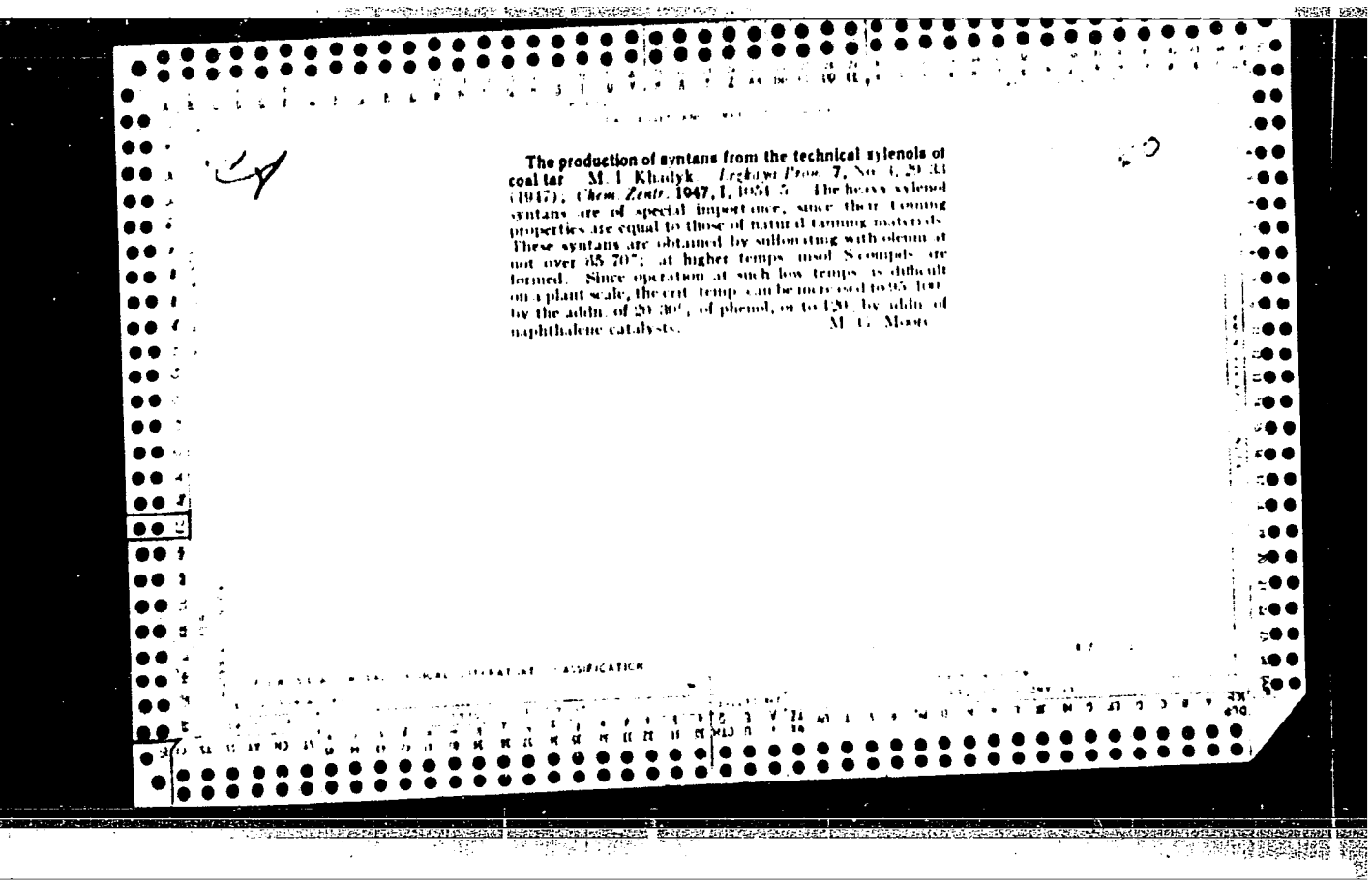


Synthetic tanning agents. M. I. Khaiyk, Kh. S. Topsovskaya, and N. A. Butkov. U.S.S.R. 65,904, Feb. 28, 1940. Tars, b. above 300°, obtained in petroleum pyrolysis are treated with H_2SO_4, monohydrate or oleum, and the sulfonation product is neutralized, e.g., with dolomite. To the same fraction may also be added naphthalene or tar fractions b. 170-350°. M. Hasch

A54-51A METALLURGICAL LITERATURE CLASSIFICATION



The production of syntans from the technical xylenols of coal tar M. I. Khudyk *Zagotovl. Prom.* 7, No. 4, 29-31 (1947); *Chem. Zentr.* 1947, I, 1054-5. The heavy xylenol syntans are of special importance, since their tanning properties are equal to those of natural tanning materials. These syntans are obtained by sulfonating with oleum at not over 45-70°; at higher temps. insol. S compds. are formed. Since operation at such low temps. is difficult on a plant scale, the crit. temp. can be increased to 95-100° by the addn. of 20-30% of phenol, or to 130° by addn. of naphthalene catalysts. M. G. Moore

PYATRASHKA, Nina [Piatrashka, Nina], nastaunitsa; KHADYKA, Sof'ya, Kalgasnitsa
KALACH, Mar'ya, kalgasnitsa; RYPINSKAYA, Nina, kalgasnitsa

May orchards blossom everywhere. Rab.i sial. 34 no.3:12 Mr '58.
(Ruzhany District--Fruit culture)

KHADYKIN, F.T.

Petrographic correlatives of Permian and Triassic deposits in the southeastern part of the Dnieper-Donets Depression. Trudy VNIGNI no.12:100-113 '58. (MIRA 12:3)
(Dnieper Lowland--Petrology)
(Donets Valley--Petrology)

KHADYROV, A.

Uptake of nutritive substances by corn plants as related to the watering system. Izv. AN Turk. SSR. Ser. biol. nauk no.4:78-82 '64. (MIRA 17:11)

1. Turkmenskiy nauchno-issledovatel'skiy institut zemledeliya.

KHADZARAGOV, A.P.

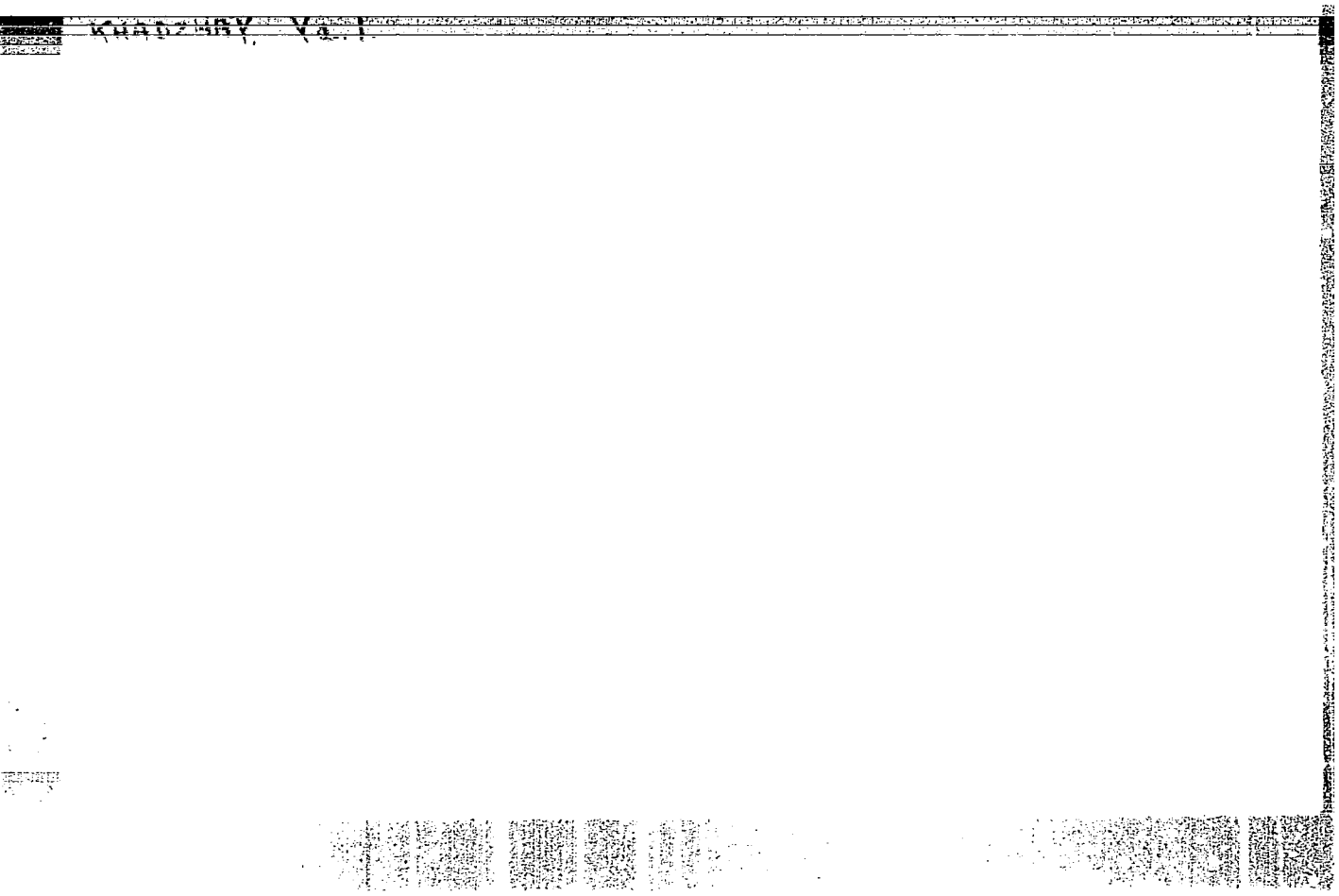
Dust formation during ore and rock transfer through vertical chutes between levels. Izv. vys. ucheb. zav.; tsvet. met. 2 no.2:11-15 '59. (MIRA 12:7)

1.Severokavkazskiy gornometallurgicheskiy institut, Kafedra spetsial'nykh kursov gornogo dela.
(Mining engineering) (Mine dusts)

SOKOLOV, A.Ye.; MAR'YENKOV, V.V.; KHADZARAGOV, A.P.

Possible mechanism of gas entrapment by rocks during blasting operations. Izv. vys. ucheb. zav.; tsvet. met. 5 no.5:3-6 '62.
(MIRA 15:10)

1. Severokavkazskiy gornometallurgicheskiy institut. Kafedra spetsial'nykh kursov gornogo dela..
(Blasting) (Gases in rocks)



KHUDZHAY, Ya. I.

Chemical Abst.
Vol. 48
A pr. 10, 1954
Biological Chemistry

Pharmacological study of cardiac glycosides from Caucasian and red hellebore. M. A. Anzarskaya, Ya. I. Khudzhaf, and G. N. Maksimenko (Sci. Research Chem.-Pharm. Inst., Kharkov). *Farmakol. i Toksikol.* 16, No. 5, 46–9 (1953).—Cryst. glycosides from *Helleborus caucasicus* and *H. purpurascens* are the most active cardiac glycosides now known. They act faster than would be expected from their strophanthin-like properties. They rank with digitoxin and strophanthin as cardiac drugs. Julian F. Smith