KHARIKHARAN, M.V., kand.tekhn.nauk

Problem concerning the effect of synchronous motors on the stability of the complex load of an electric power system. Izv. vys. ucheb. zav.; energ. 5 no.6:119-122 Je '62. (MIRA 15:6)

1. Bombeyskiy politekhnicheskiy institut, Indiya. Predstavlena kafedroy elektricheskikh sistem Moskovskogo energeticheskogo instituta.
(Electric power distribution) (Electric motors, Synchronous)

BAMPI, Yu.S., inzh.; KHARIKHARAN, M.V., inzh.

Special features of the stability of an asynchronous load with generator excitation regulation. Izv. vys. ucheb. zav.; energ. 5 no.10:5-12 O '62. (MIRA 15:11)

1. Moskovskiy ordena Lenina energeticheskiy institut. Predstavlena kafedroy elektricheskikh sistem.
(Electric power distribution)
(Electric motors)

ACC NR: AR7004115 SOURCE CODE: UR/0169/66/000/012/G003/G004

AUTHOR: Kharikov, B. A.

TITLE: Characteristics of the structure of the earth's crust in the vicinity of the Bol'shoy Balkhan and adjacent areas based on regional seismic profiling data

SOURCE: Ref. zh. Geofizika, Abs. 12G18

REF SOURCE: Sb. Tekton. Turkmenii i sopredel'n. territoriy. M., Nauka, 1966, 210-213

TOPIC TAGS: seismic profiling, earth crust, Mohorovicic discontinuity, tectonics, seismic prospecting

ABSTRACT: Correlation refracted wave and deep seismic sounding data obtained along the Ogurchinskiy Island-Sarykamysh Basin profile have been used to compile a seismic cross-section of the Earth's crust along the Bol'shoy Balkhan-Caspian Sea sector. South from the Bol'shoy Balkhan the depth to the Mohorovicic discontinuity decreases with an increasing slope (from 30 to 55 km). The top of the basaltic and granitic layers sinks from 13 to 18 km and from 1 to 5 km, respectively. A block structure with many local tectonic dislocations characterizes the surface of the granitic layer. In addition, three major deep fault zones involving the entire crystalline complex down to the subcrustal layer are identified. From the surface, the structure of the Bol'shoy Balkhan appears as a large asymmetric anticline 100 km in length and 50 km wide. The fold has latitudinal strike. The earth's crust in the vicinity of Bol'shoy Balkhan is of the platform type; its thickness is 30—32 km. The deep geologic structure of the Bol'shoy Balkhan is compared to that of the West Turkmen

Card 1/2 UDC: 550.311:551.24

ACC NR: AR7004115

KHARIKOV, B.A.; SAL'NIKOV, B.I.

First results of the use of the controlled directional sensitivity method in seismic propsecting on the Cheleken Peninsula. Neftegaz. geol. i geofiz. no.4:51-53 '65. (MIRA 18:7)

1. Zapadnaya geofizicheskaya ekspeditsiya No.1 i ON pri Sovete Ministrov Turkmenskoy SSR.

KHARIKOV, B.A.; DEMIN, V.Ye.

Results of seismic investigations by the reflection method in the Oval-Toval area of the Balkhan region in 1963. Geol. nefti i gaza 8 no.5:34-38 My '64. (MIRA 17:9)

1. Zapadnaya geofizicheskaya ekspeditsiya No.1 Upravleniya geologii i okhrany nedr pri Sovete Ministrov Turkmenskoy SSR.

ACCESSION NR: AP4040293 S/0202/64/000/003/0047/0051

AUTHORS: Kharikov, B. A.; Sal'nikov, B. I.

TITLE: First results of using the RDR seismic method (regulated directional reception) for exploring subsurface red beds in the Balkhan region of the Turkmen SSR

SOURCE: AN TurkmSSR. Izv. Ser. fiz.-tekhn., khim. i geol. n., no. 3, 1964, 47-51

TOPIC TAGS: seismic prospecting, regulated directional reception, red bed, geologic structure/ SS 26 51D seismic installation

ABSTRACT: It was found that the ordinary reflection method of seismic prospecting did not adequately delineate structure of the red beds in much of western Turkmenia. Records generally showed broken reflections with short in-phase axes, partly interference, which gave doubtful correlations. Much of the record was so chaotic that no interpretation could be attempted. The regulated directional reception method (RDR) was therefore proposed, as a test of the method and as a means of deciphering the obscure structure. Single and double profiles were run, with shot-point distances of 400 m and a distance of 25 m between array centers. In addition, a longitudinal grouping of 11 detectors was made on a base of 40 m for averaging

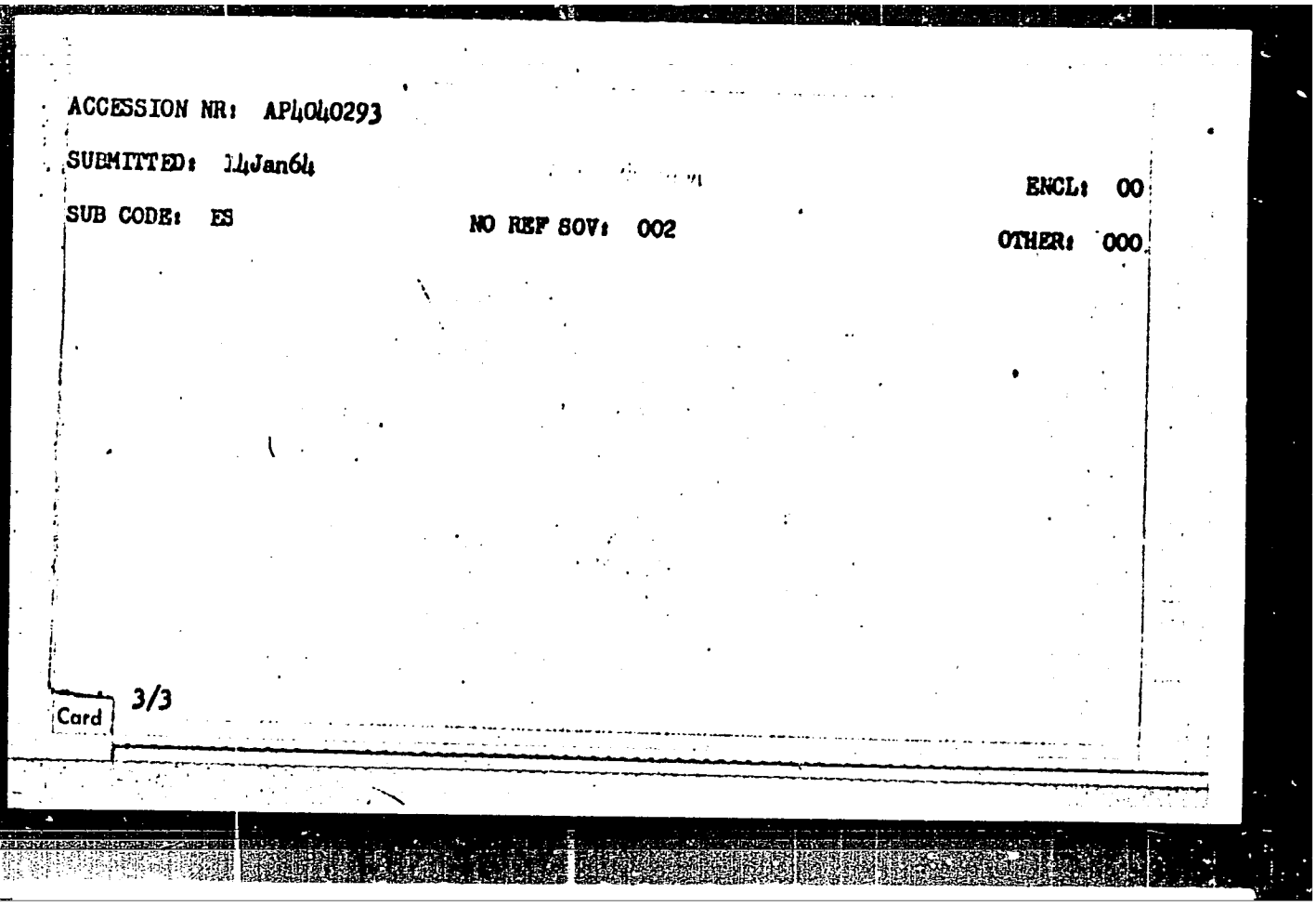
Card 1/3

ACCESSION NR: AP4040293

values and diminishing noise. An SS-26-51D seismic installation was used. A section was constructed along one of the profiles from RDR data with supplementary 25-60 filtering. Results show that the method is very effective in interpreting the geologic structure. The constructed section permits rather complete depth determination of the red beds. A more complete geologic map may be drawn from this work than from any other geophysical method. The crestal zones along the anticlines of the Balkhan district have very complex structure, being characterized by the presence of nonreflecting interfaces, and it is therefore necessary to make double profiles for efficient RDR delineation. Productivity in such exploration may be greatly improved by increasing the number of channels in the recording system. The authors conclude that the amount of RDR work in the Balkhan region should be increased in order to improve the study of structure of the red beds, because prospects for oil in western Turkmenia are related to structures in these rocks. Orig. art. has: 1 figure.

ASSOCIATION: Zapadnaya geofizicheskaya expeditsiya Upravleniya geologii i okhrany* nedr pri Sovete Ministrov Turkmenskoy SSR (Western Geophysical Expedition, Administration of Geology and Conservation of Natural Resources at the Soviet Ministry, Turkmen SSR)

Card 2/3



ACCESSION NR: AP4040293

SUBMITTED: 14Jan64

ENCL: 00

SUB CODE: ES

NO REF SOV: 002

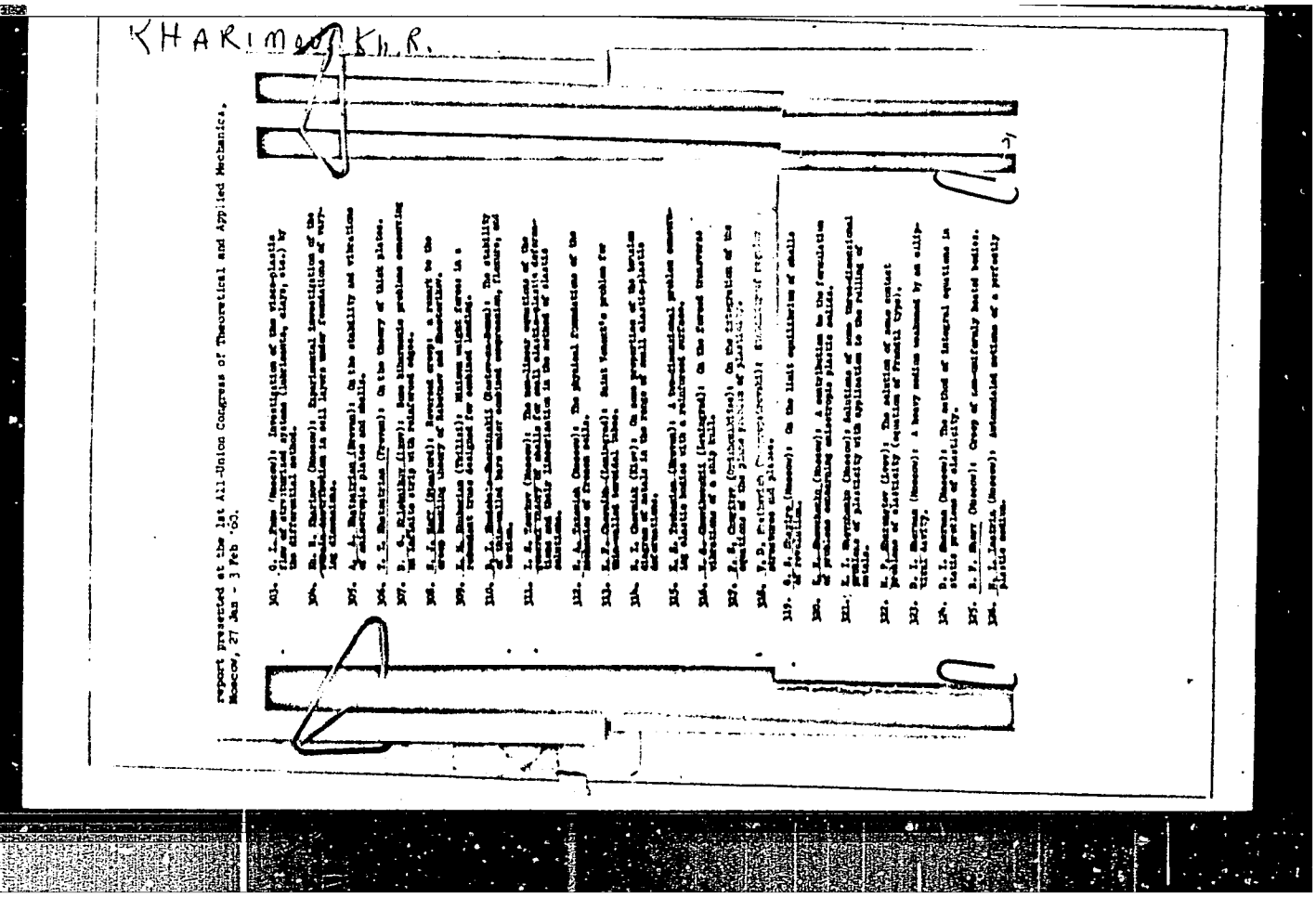
OTHER: 000

Card 3/3

KHARIKOV, B.A.; DATSUK, Ye.M.

Seismic studies on the profile No. 62001 in western Turkmenistan using the correlation method of refracting waves and hodographic seismic sounding. Izv. AN Turk. SSR. Ser. fiz.-tekh., khim. i geol. nauk no.6:23-27 '64. (MIRA 18:4)

1. Zapadnaya geofizicheskaya ekspeditsiya Upravleniya geologii i okhrany nedr pri Sovete Ministrov Turkmenskoy SSR.



KHARIMOV, Kh.R.

Report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

KHARIN, A.

USSR/Electronics - Transceivers Feb 52

"The 'Urozhay' Using Battery Tubes," O. Anisimov and A. Kharin, Astrakhan'

Radio, No 2, p 36

Authors changed "Urozhay"-type radio station to obtain more economical supply. Miniature 2-v tubes replaced regular tubes; a dry battery replaced the RU-11B converter which required 70% of the battery power and 2 BNS MVD-500 dry type cells replaced the 6ST128 battery. After these and other changes, the transmitter drew 30 ma from the B battery and the receiver drew 5 ma.

253T59

KHARIN, A., kand.tekhn.nauk (Stavropol'-na-Volge)

A valuable manual for hydraulic mechanics. Gidr. i mel. 16 no.1:63-64 Ja '64. (MIRA 17:2)

KHARIN, A.D., inzhener.

Method of repairing defects in bronze facings. Sudostroenie 22 no.8:27-28 Ag '56. (MLRA 9:10)

(Shafts and shafting)

Name: KHARIN, A. I.

Dissertation: On increasing the efficiency of suction dredges in cleaning canals of debris

Degree: Cand Tech Sci

Referred for Publication

Affiliation: Min Agriculture USSR, Tashkent Inst of Engineers of Irrigation and Mechanization of Agriculture TIIIMSKh

Defense Date, Place: 1956, Tashkent

Source: Knizhnaya Letopis', No 45, 1956

KHARIN, A.I.

KHOLIN, N.D., professor.; NIKOLAYEV, I.I., kandidat tekhnicheskikh nauk.; KHARIN, A.I., inzhener.

"Hydromechanization of earth works" by A. M. TSarevskii. Gidr. i mel. 8 no.11:60-61 N '56. (MLRA 10:4)
(Hydraulic engineering) (Earthwork)

KHARIN, A.I., inzh.

Cleaning settling tanks by means of dredging machinery. Elek.sta. 29 no.5:75-76 My '58. (MIRA 12:3)
(Feed water) (Tanks) (Dredging machinery)

KHARIN, A.I. (Tashkent)

Removal of sediments from tank type water intakes. Vod.i san. tekh. no.1:31-34 Ja '60. (MIRA 13:4)
(Water-supply engineering)

KHARIN, A.I., kand.tekhn.nauk; YUDICHEV, V.V., inzh.

Studies of the use of vibration for underwater working of soil with suction dredges. Sbor.trud.VNIINerud no.1:108-117 '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnykh stroitel'nykh materialov i gidromekhanizatsii.
(Dredging machinery) (Vibrators)

KHARIN, A.I., kand.tekhn.nauk; RAZDOL'NYY, V.A., inzh.; YUDICHEV, V.V., inzh.

Laboratory studies of the process of earth working with various types of earth-intake devices. Sbor. trud. VNIINerud no.2:3-19 '62.
(MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nerudnykh stroitel'nykh materialov i gidromekhanizatsii.
(Dredging machinery--Testing)

KHARIN, A.I., kand. tekhn. nauk; YUDICHEV, V.V., inzh.

Using vibration to work up the ground by suction dredges. Mekh. stroi. 20 no.9:9-12 S '63. (MIRA 16:10)

(Dredging machinery)

VOLKOV, V.T.; DUDKO, A.A.; LEBEDEV, V.P.; LIPGART, B.K.; MIKHAYLOV, B.V., kand.tekhn.nauk; MIKHAYLOV, V.A., kand.tekhn.nauk; REKUNOV, V.F.; SAVEL'YEV, N.P.; SOROKIN, V.V.; KHARIN, A.I. kand.tekhn.nauk; Prinimali uchastiye: IVANOV, N.A., kand.tekhn.nauk; INOKOVA, O.L.; GOMOZOVA, N.A., red.; NAUMOVA, G.D., tekhn.red.

[Mechanization and automation in the rock products industry] Mekhanizatsiia i avtomatizatsiia v promyshlennosti nerudnykh stroitel'nykh materialov. [By] V.T.Volkov i dr. Moskva, Gosstroiizdat, 1963. 353 p. (MIRA 17:3)

VOLKOV, Valentin Georgiyevich, inzh.; YELSHIN, Igor' Mikhaylovich, kand. tekhn. nauk; KHAZIN, Arnol'd Ivanovich, kand. tekhn. nauk; KHRUSTALEV, Mikhail Ivanovich, kand. tekhn. nauk; GUREVICH, E.A., red.

[Enriching and fractionating natural sand for concrete by the hydraulic method] Obogashchenie i fraktsionirovanie prirodnykh peskov dlia betona gidravlicheskim sposobom. Moskva, Stroiizdat, 1964. 162 p. (MIRA 18:1)

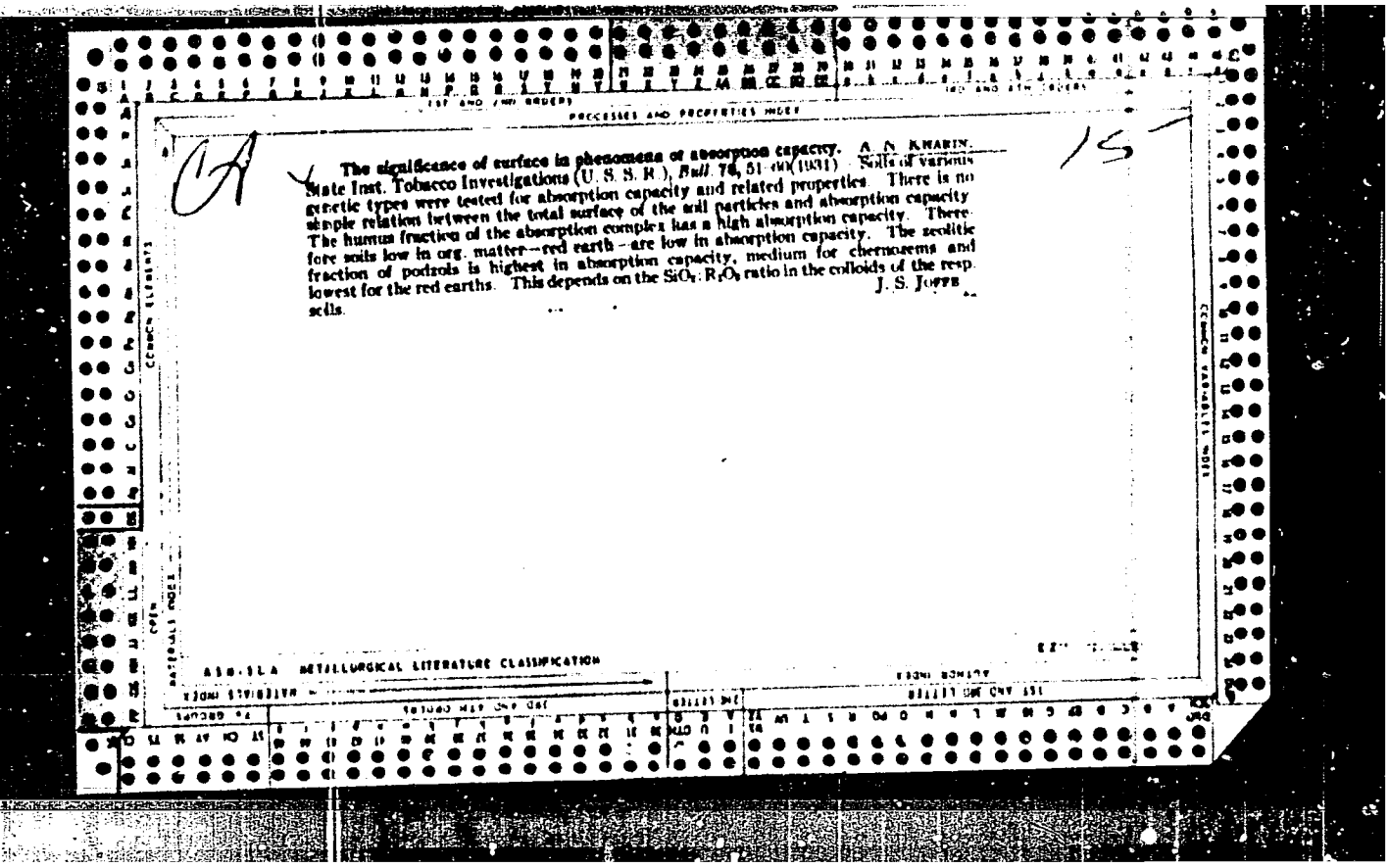
ZUBKOV, Viktor Nikolayevich; KHARIN, A.I., redaktor; PIMCHENKO, S.I., tekhnicheskiy redaktor

[The struggle to raise labor productivity in the petroleum industry] Bor'ba za povyshenie proizvoditel'nosti truda na neftepromysle. [Groznyi] Groznenskoe kn-vo, 1955. 48 p. [Microfilm] (MLRA 10:2)
(Labor productivity) (Petroleum industry)

RUBO, Leonid Grigor'yevich; KHARIN, A.M., red.; VORONIN, K.P., tekhn. red.; LARIONOV, Ye.G., tekhn. red.

[Conversion and repair of asynchronous motors with a power rating up to 100 kw.] Pereschet i remont asinkhronnykh dvigatelei moshchnost'iu do 100 kvt. Moskva, Gos. energ. izd-vo, 1961. 391 p. (MIRA 14:10)

(Electric motors, Induction)



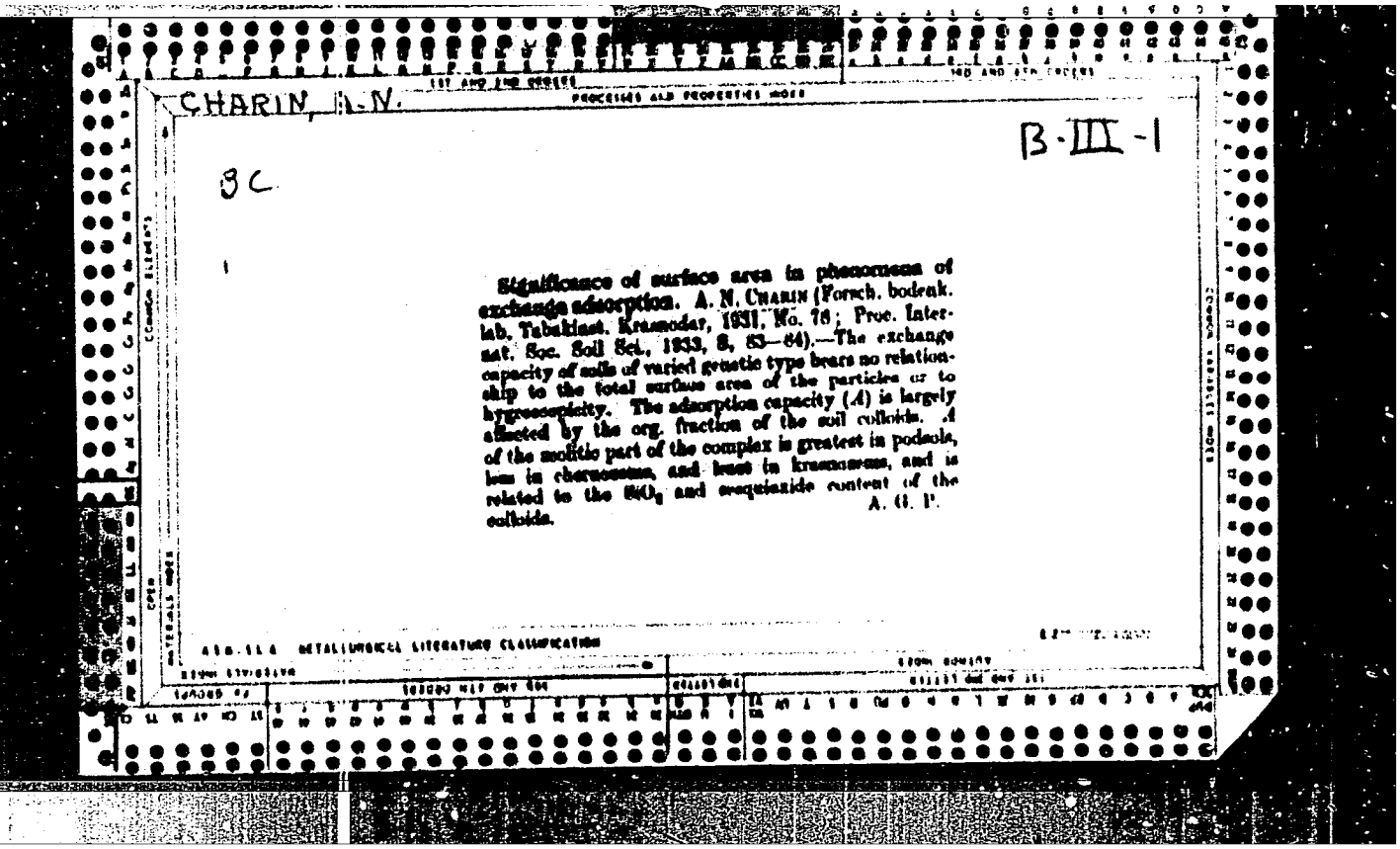
PROCESSES AND PROPERTIES INDEX

CA

15

The significance of surface in phenomena of absorption capacity. A. N. KHARIN. State Inst. Tobacco Investigations (U. S. S. R.), *Bull.* 78, 51-60 (1931). Soils of various genetic types were tested for absorption capacity and related properties. There is no simple relation between the total surface of the soil particles and absorption capacity. The humus fraction of the absorption complex has a high absorption capacity. Therefore soils low in org. matter—red earth—are low in absorption capacity. The zeolitic fraction of podzols is highest in absorption capacity, medium for chernozems and lowest for the red earths. This depends on the $SiO_2:R_2O_3$ ratio in the colloids of the resp. soils. J. S. JOFFE

A38-51A METALLURGICAL LITERATURE CLASSIFICATION



CHARIN, A.N.

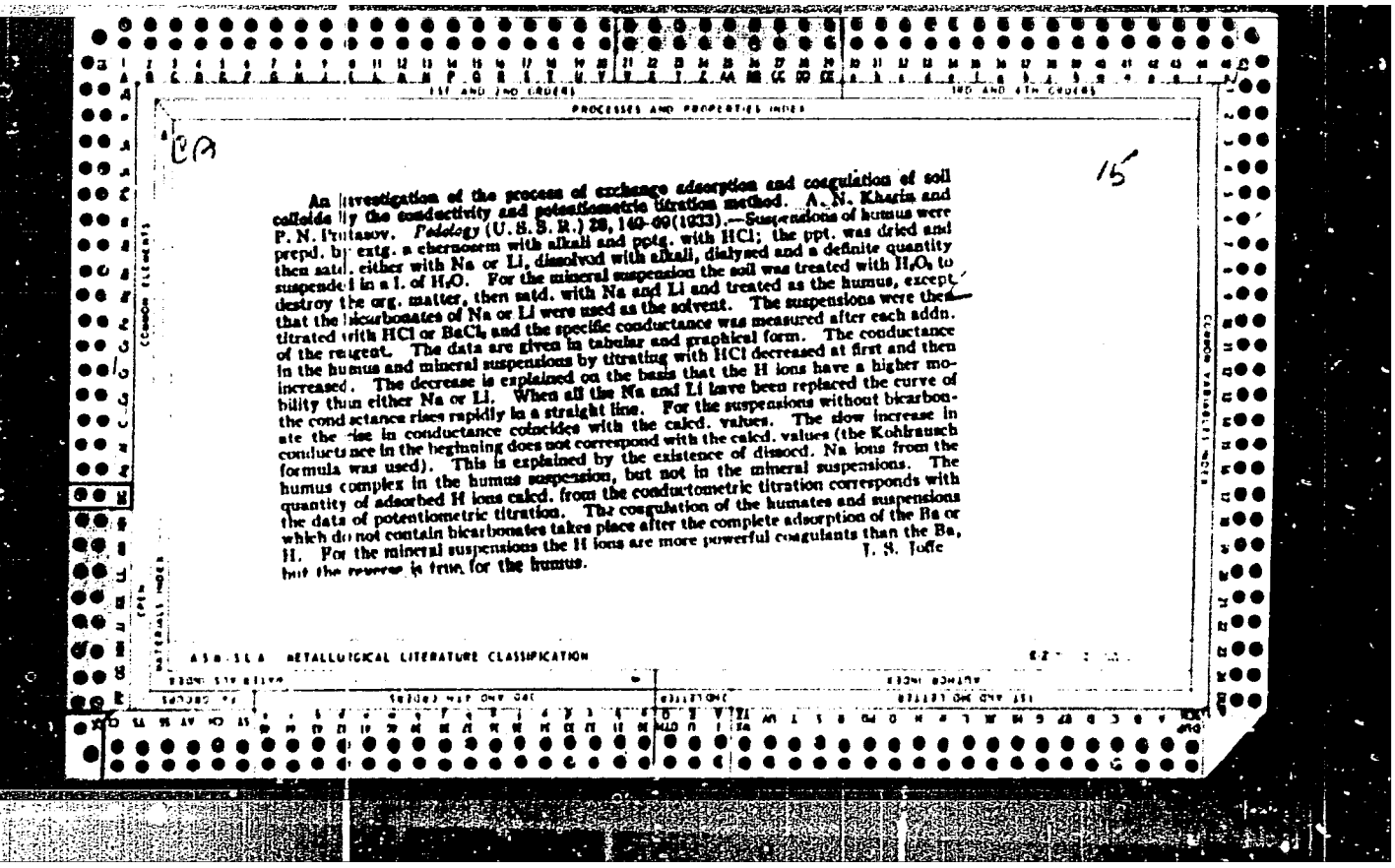
B-III-1

9C

1

Significance of surface area in phenomenon of exchange adsorption. A. N. CHARIN (Forsch. bodenk. lab. Tabakfast. Krasnodar, 1931, No. 76; Proc. Inter-nat. Soc. Soil Sci., 1933, 8, 83—84).—The exchange capacity of soils of varied genetic type bears no relation-ship to the total surface area of the particles or to hygroscopicity. The adsorption capacity (A) is largely affected by the org. fraction of the soil colloids. A of the micellic part of the complex is greatest in podsols, less in chernozems, and least in krasnozems, and is related to the SiO_2 and sesquioxide content of the colloids.

A. G. P.



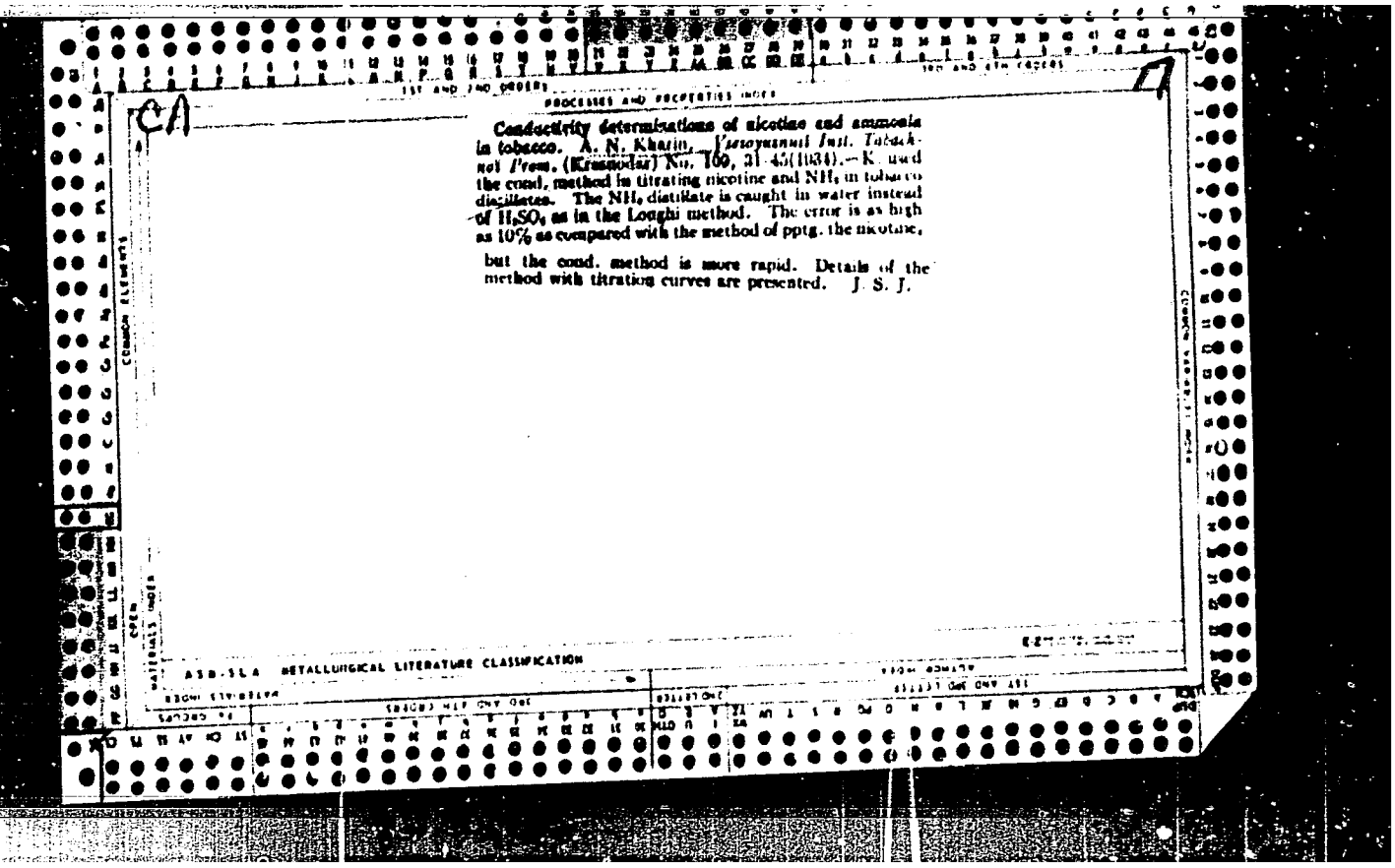
PROCESSES AND PROPERTIES INDEX

15

An investigation of the process of exchange adsorption and coagulation of soil colloids by the conductivity and potentiometric titration method. A. N. Khanin and P. N. Frutasov. *Pedology* (U.S.S.R.) 28, 160-69(1933).—Suspensions of humus were prepd. by extg. a chernozem with alkali and ppta. with HCl; the ppt. was dried and then satd. either with Na or Li, dissolved with alkali, dialyzed and a definite quantity suspended in a l. of H_2O. For the mineral suspension the soil was treated with H_2O_2 to destroy the org. matter, then satd. with Na and Li and treated as the humus, except that the bicarbonates of Na or Li were used as the solvent. The suspensions were then titrated with HCl or $BaCl_2$ and the specific conductance was measured after each addn. of the reagent. The data are given in tabular and graphical form. The conductance in the humus and mineral suspensions by titrating with HCl decreased at first and then increased. The decrease is explained on the basis that the H ions have a higher mobility than either Na or Li. When all the Na and Li have been replaced the curve of the conductance rises rapidly in a straight line. For the suspensions without bicarbonate the rise in conductance coincides with the calcd. values. The slow increase in conductance in the beginning does not correspond with the calcd. values (the Kohlrausch formula was used). This is explained by the existence of dissocd. Na ions from the humus complex in the humus suspension, but not in the mineral suspensions. The quantity of adsorbed H ions calcd. from the conductometric titration corresponds with the data of potentiometric titration. The coagulation of the humates and suspensions which do not contain bicarbonates takes place after the complete adsorption of the Ba or H. For the mineral suspensions the H ions are more powerful coagulants than the Ba, but the reverse is true for the humus.

I. S. Joffe

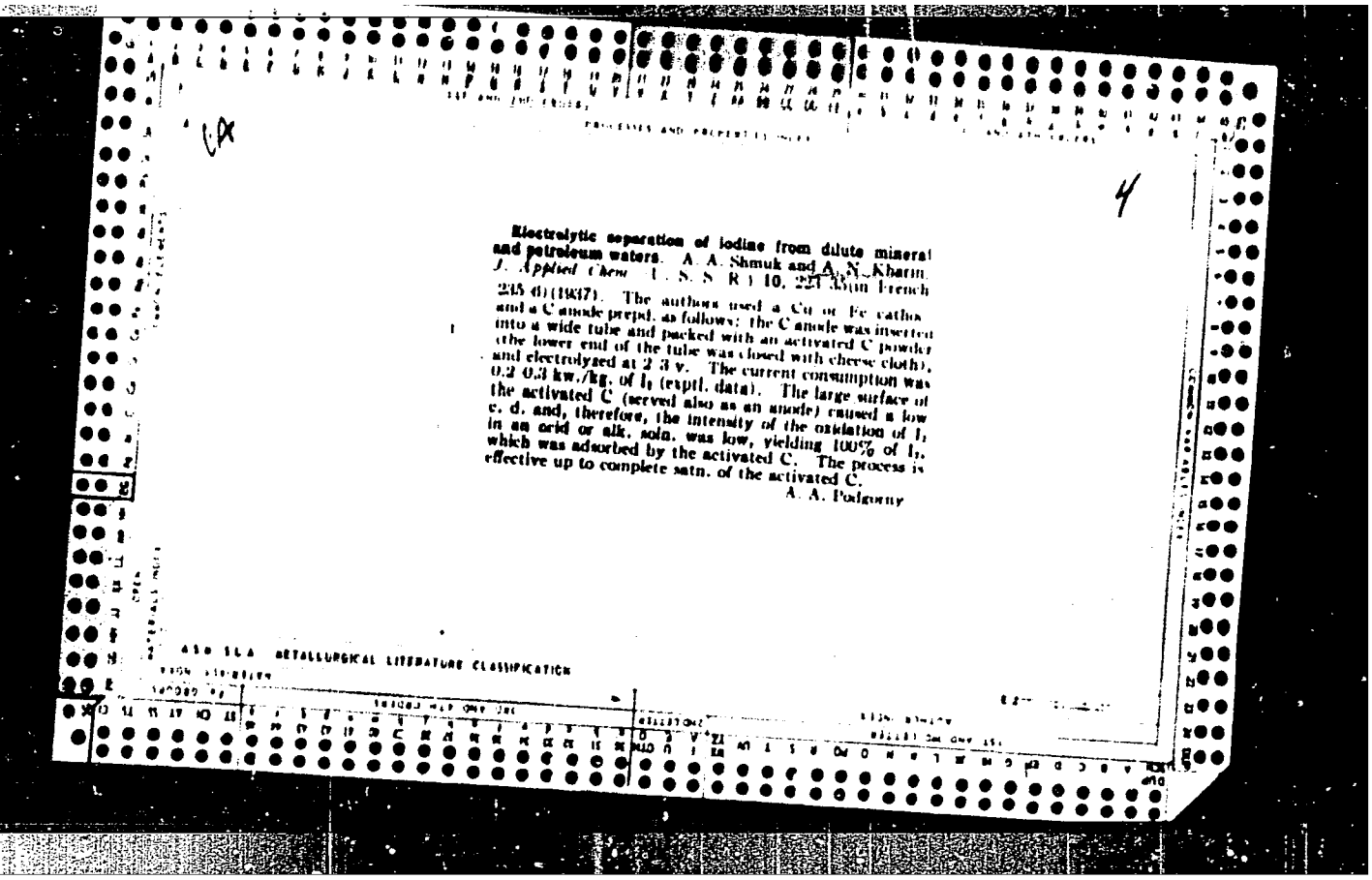
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

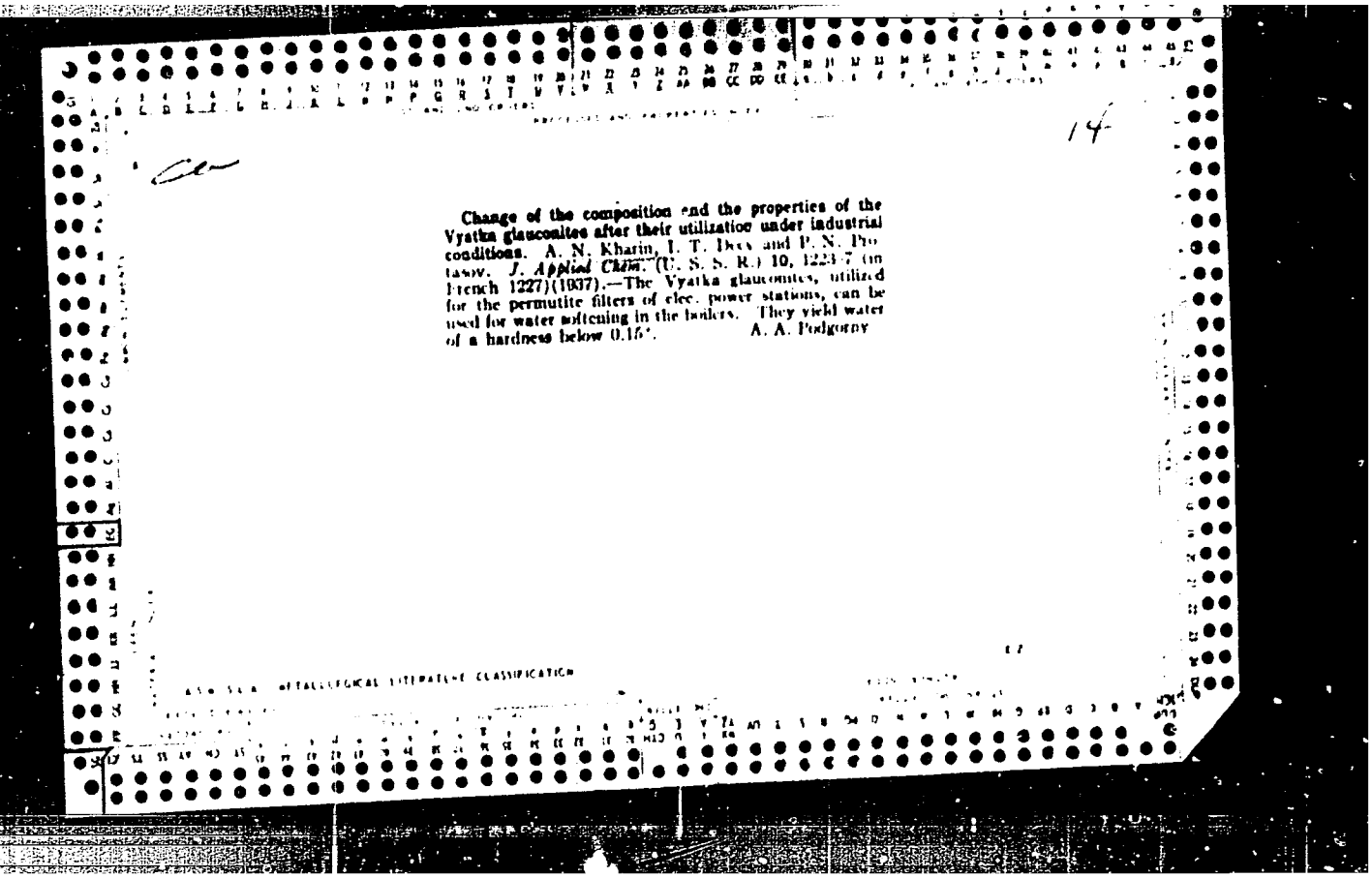
Conductivity determinations of nicotine and ammonia in tobacco. A. N. Kharin. *Vsesoyuznyi Inst. Tabak-nol Prom.* (Krasnodar) No. 109, 31-45(1934).—K. used the cond. method in titrating nicotine and NH_3 in tobacco distillates. The NH_3 distillate is caught in water instead of H_2SO_4 as in the Longhi method. The error is as high as 10% as compared with the method of pptg. the nicotine, but the cond. method is more rapid. Details of the method with titration curves are presented. J. S. J.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Electrolytic separation of iodine from dilute mineral and petroleum waters. A. A. Shmuk and A. N. Kharin. *J. Applied Chem.* U. S. S. R. 10, 225-30 (in French 235-6) (1937). The authors used a Cu or Fe cathode and a C anode prepd. as follows: the C anode was inserted into a wide tube and packed with an activated C powder (the lower end of the tube was closed with cheese cloth), and electrolyzed at 2-3 v. The current consumption was 0.2-0.3 kw./kg. of I_2 (exptl. data). The large surface of the activated C (served also as an anode) caused a low c. d. and, therefore, the intensity of the oxidation of I_2 in an acid or alk. soln. was low, yielding 100% of I_2, which was adsorbed by the activated C. The process is effective up to complete satn. of the activated C.

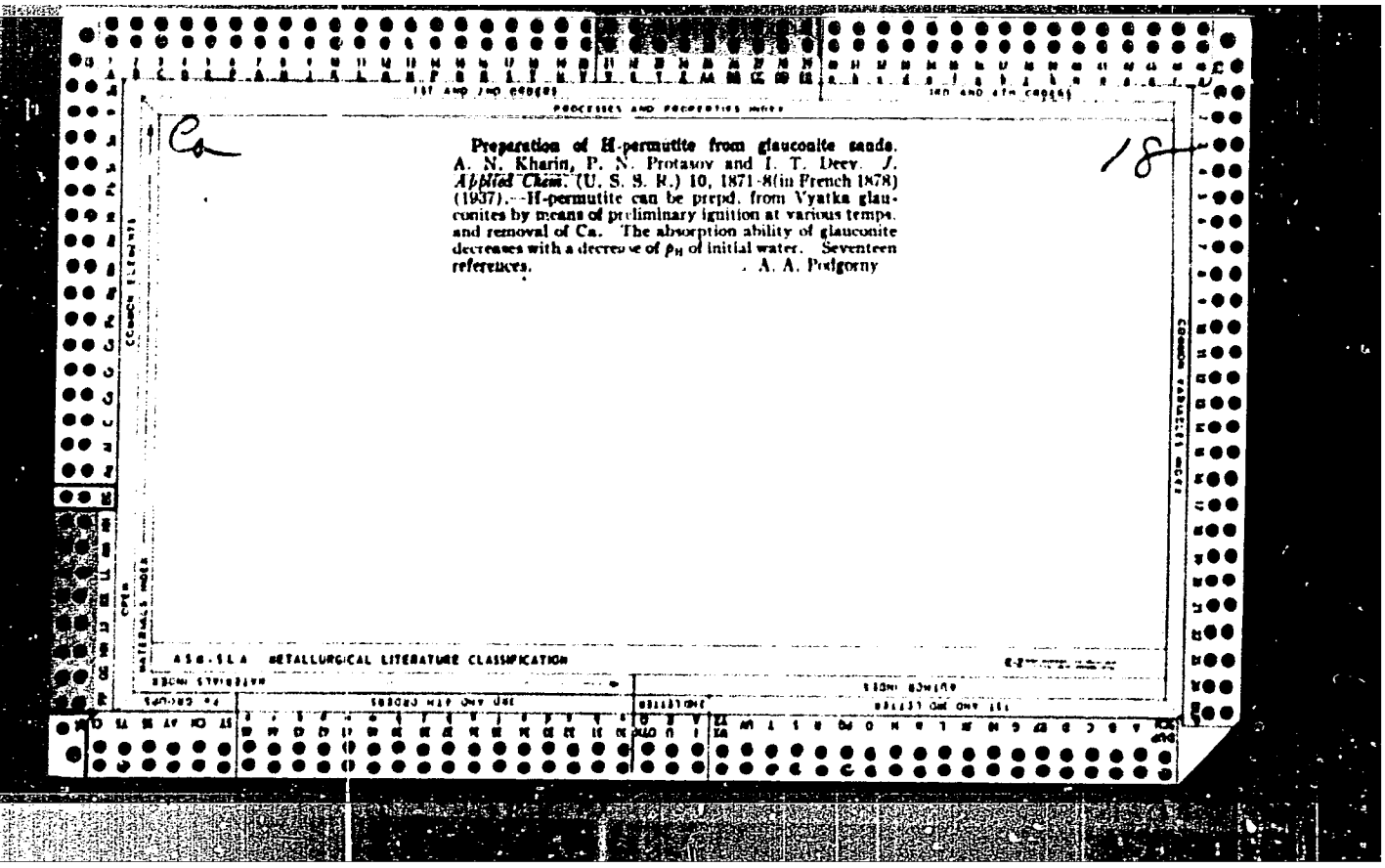
A. A. Polgorny



14

Change of the composition and the properties of the Vyatka glauconites after their utilization under industrial conditions. A. N. Kharin, I. T. Dess and P. N. Protasov. *J. Applied Chem.* (U. S. S. R.) 10, 1223-7 (in French 1227)(1937).—The Vyatka glauconites, utilized for the permutite filters of elec. power stations, can be used for water softening in the boilers. They yield water of a hardness below 0.15°. A. A. Podgorny

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

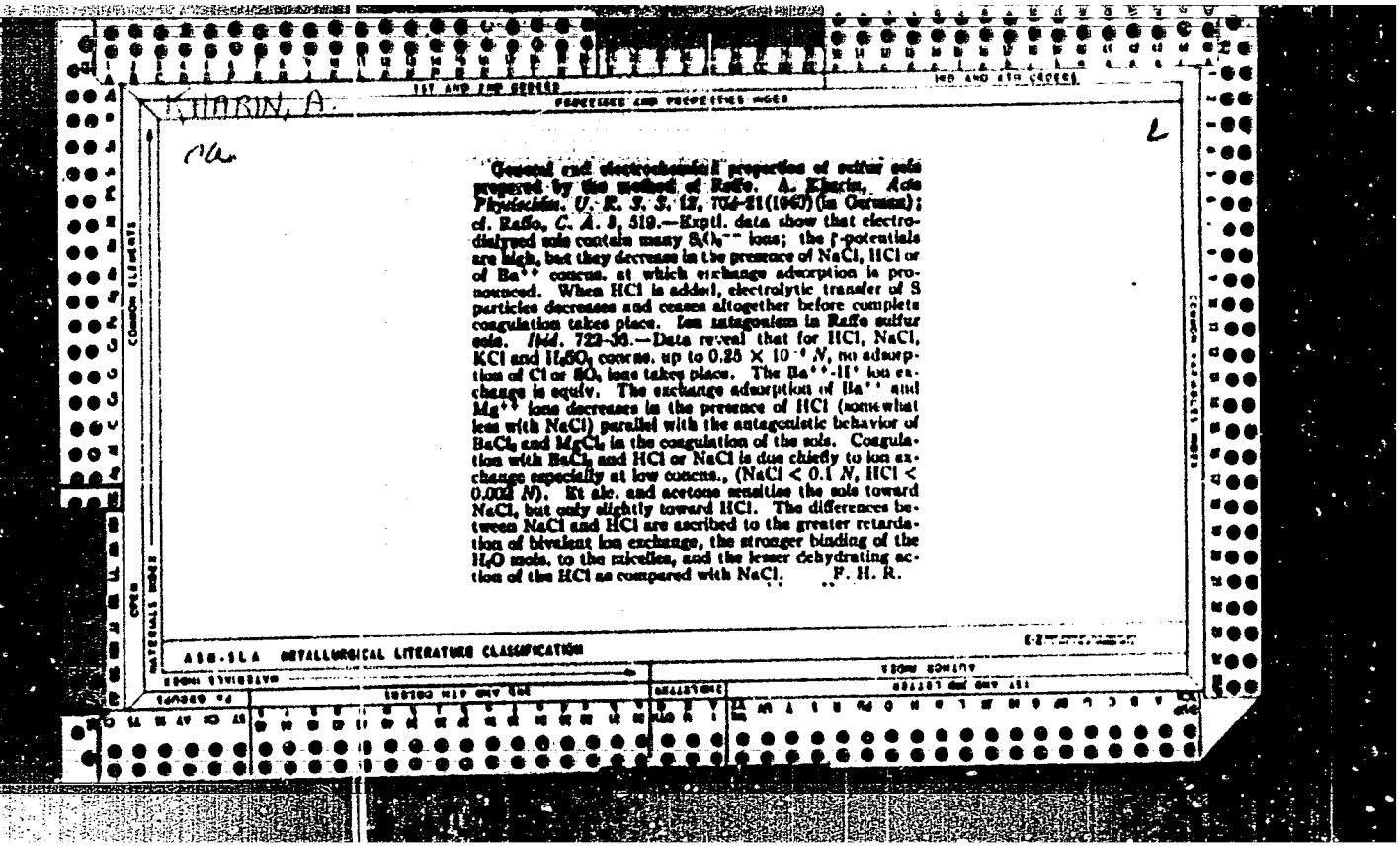


Ca

18

Preparation of H-permutite from glauconite sands. A. N. Kharin, P. N. Protasov and I. T. Deev. *J. Applied Chem.* (U. S. S. R.) 10, 1871-8(in French 1878) (1937).—H-permutite can be prepd. from Vyatka glauconites by means of preliminary ignition at various temps. and removal of Ca. The absorption ability of glauconite decreases with a decrease of p_H of initial water. Seventeen references. A. A. Podgorny

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

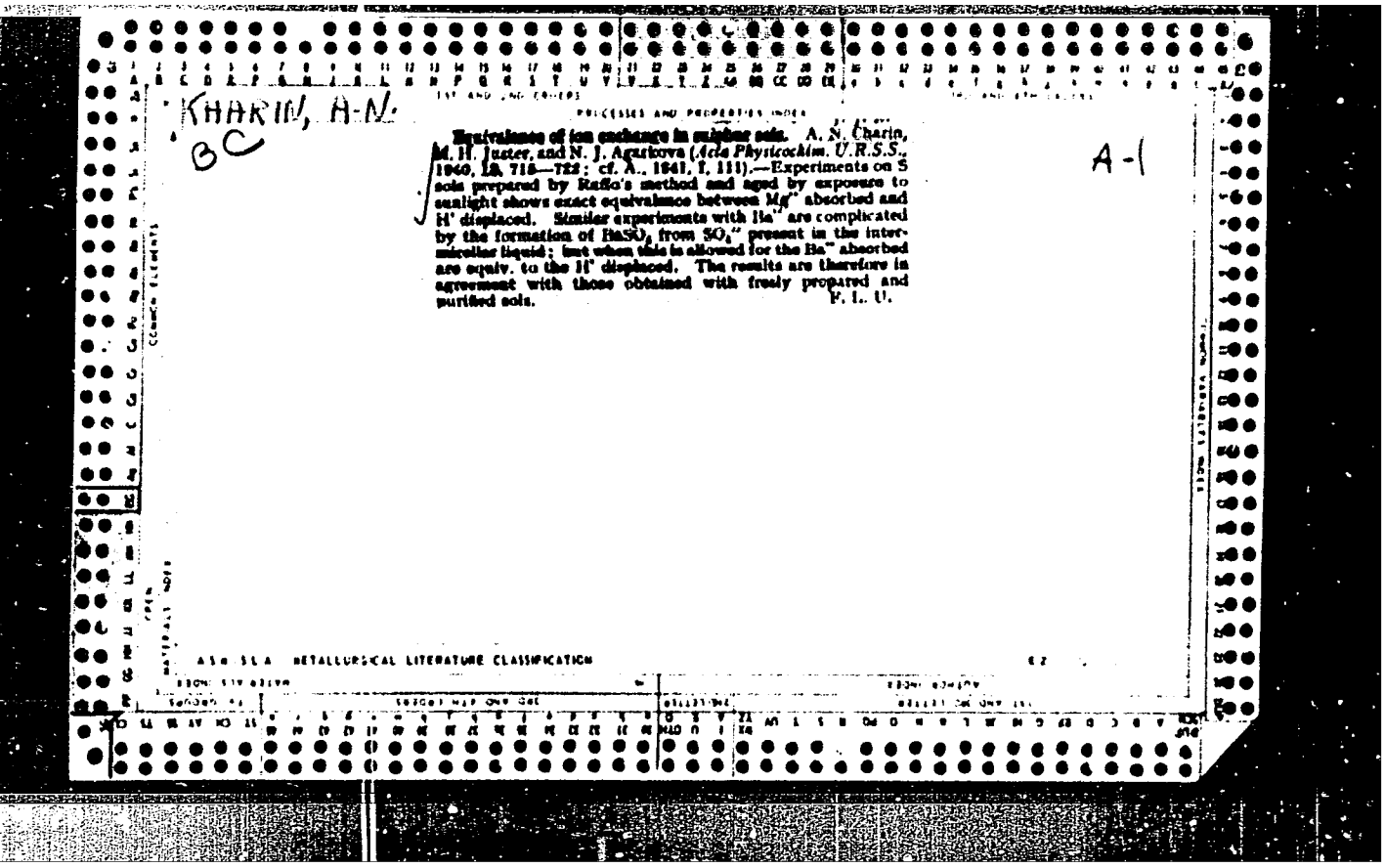


KHARIN, A.

L

General and electrochemical properties of sulfur sols prepared by the method of Raffo. A. Kharin, *Acta Physicochim. U. R. S. S.* 12, 705-21(1940)(in German); cf. Raffo, *C. A.* 8, 519.—Exptl. data show that electrodialyzed sols contain many $S_2O_3^{--}$ ions; the ζ-potentials are high, but they decrease in the presence of NaCl, HCl or of Ba^{++} concns. at which exchange adsorption is pronounced. When HCl is added, electrolytic transfer of S particles decreases and ceases altogether before complete coagulation takes place. Ion antagonism in Raffo sulfur sols. *Ibid.* 723-36.—Data reveal that for HCl, NaCl, KCl and H_2SO_4 concns. up to 0.25×10^{-4} *N*, no adsorption of Cl or SO_4 ions takes place. The Ba^{++}-H^+ ion exchange is equiv. The exchange adsorption of Ba^{++} and Mg^{++} ions decreases in the presence of HCl (somewhat less with NaCl) parallel with the antagonistic behavior of $BaCl_2$ and $MgCl_2$ in the coagulation of the sols. Coagulation with $BaCl_2$ and HCl or NaCl is due chiefly to ion exchange especially at low concns., (NaCl < 0.1 *N*, HCl < 0.001 *N*). Et alc. and acetone sensitize the sols toward NaCl, but only slightly toward HCl. The differences between NaCl and HCl are ascribed to the greater retardation of bivalent ion exchange, the stronger binding of the H_2O mols. to the micelles, and the lesser dehydrating action of the HCl as compared with NaCl. F. H. R.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



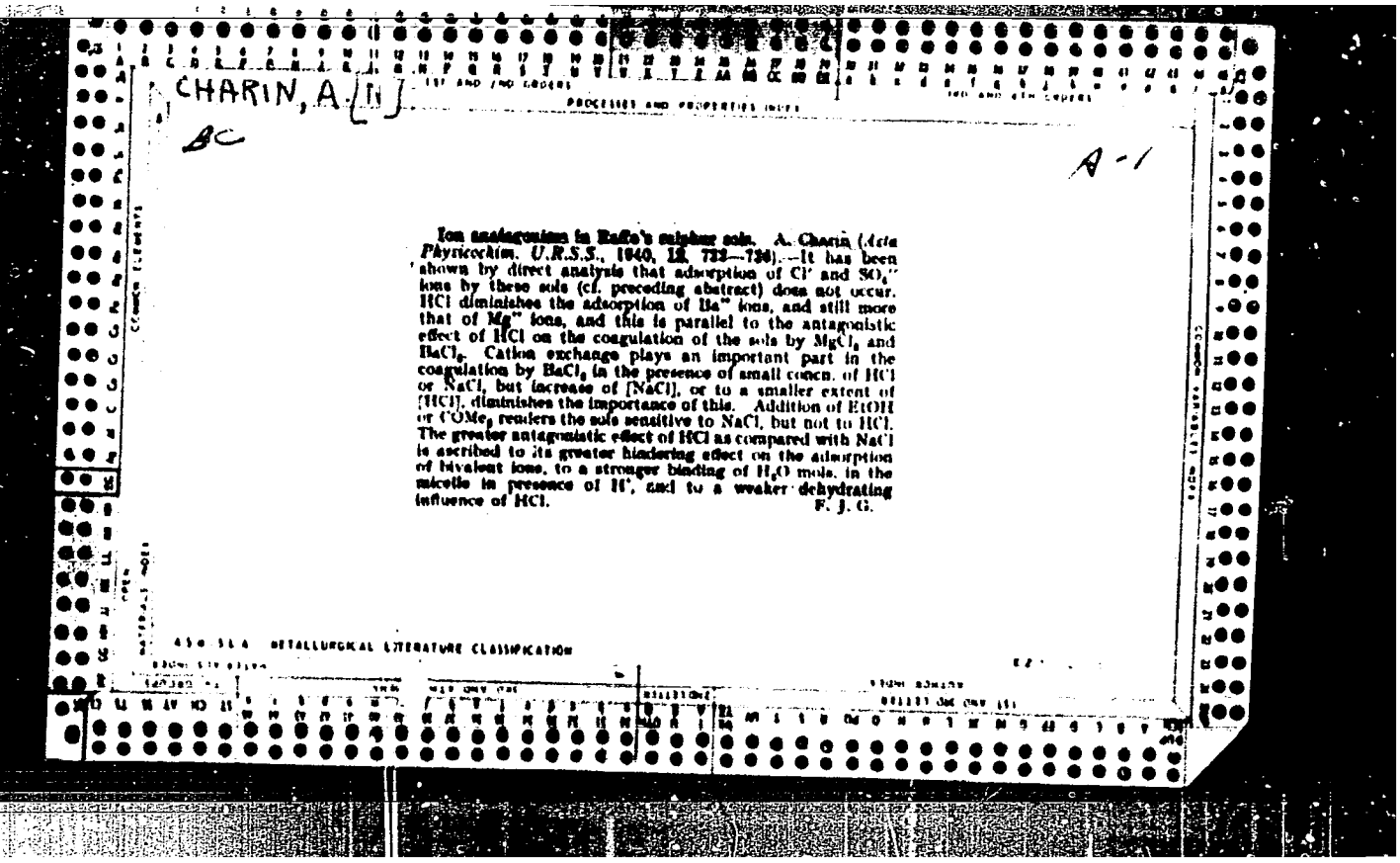
KHARIN, A.N.
BC

A-1

PROCESSES AND PROPERTIES INDEX

Equivalence of ion exchange in sulphur soils. A. N. Charin, M. H. Juster, and N. J. Agatinova (*Acta Physicochim. U.R.S.S.*, 1940, **13**, 715—722; cf. A., 1941, I, 111).—Experiments on S sols prepared by Raffo's method and aged by exposure to sunlight shows exact equivalence between $Mg^{"}$ absorbed and $H^{'}$ displaced. Similar experiments with $Ba^{"}$ are complicated by the formation of $BaSO_3$ from $SO_3^{"}$ present in the inter-micellar liquid; but when this is allowed for the $Ba^{"}$ absorbed are equiv. to the $H^{'}$ displaced. The results are therefore in agreement with those obtained with freshly prepared and purified sols. F. L. U.

A S M S L A METALLURGICAL LITERATURE CLASSIFICATION



CHARIN, A. [N]

AC

A-1

Ion antagonism in Bayle's sulphur sols. A. Charin (*Acta Physicochim. U.R.S.S.*, 1940, **13**, 732—736).—It has been shown by direct analysis that adsorption of Cl' and SO_4'' ions by these sols (cf. preceding abstract) does not occur. HCl diminishes the adsorption of Ba'' ions, and still more that of Mg'' ions, and this is parallel to the antagonistic effect of HCl on the coagulation of the sols by $MgCl_2$ and $BaCl_2$. Cation exchange plays an important part in the coagulation by $BaCl_2$ in the presence of small concn. of HCl or NaCl, but increase of [NaCl], or to a smaller extent of [HCl], diminishes the importance of this. Addition of EtOH or $COMe_2$ renders the sols sensitive to NaCl, but not to HCl. The greater antagonistic effect of HCl as compared with NaCl is ascribed to its greater hindering effect on the adsorption of bivalent ions, to a stronger binding of H_2O mols. in the micelle in presence of H', and to a weaker dehydrating influence of HCl.

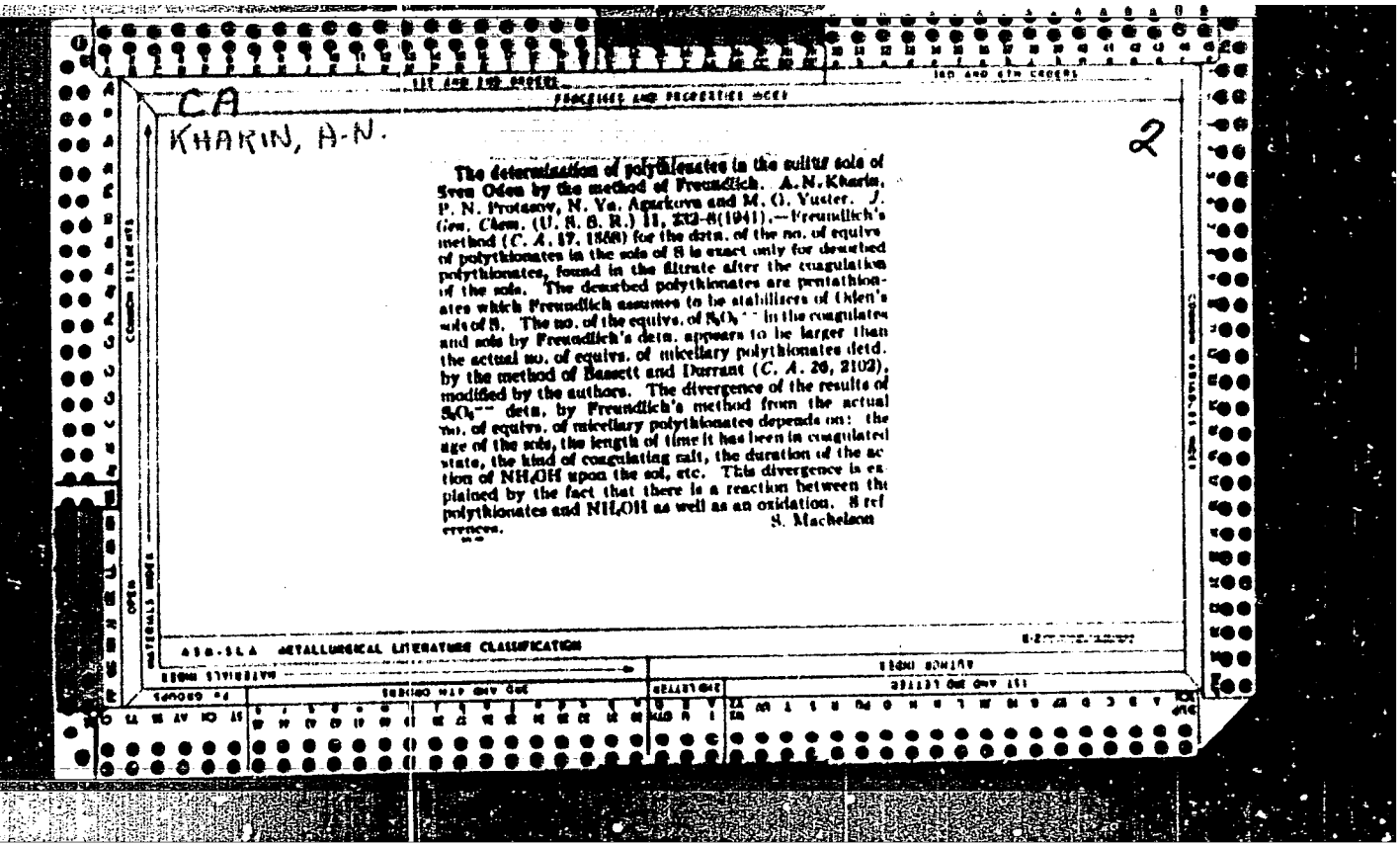
F. J. G.

A56 S14 METALLURGICAL LITERATURE CLASSIFICATION

CHARIN, A. N.

"Concerning the Equivalence on Ion Exchange in Sulfur Salts," Acta Phys., 13, No.5, 1940

Pedagogic Inst., Krasnodar



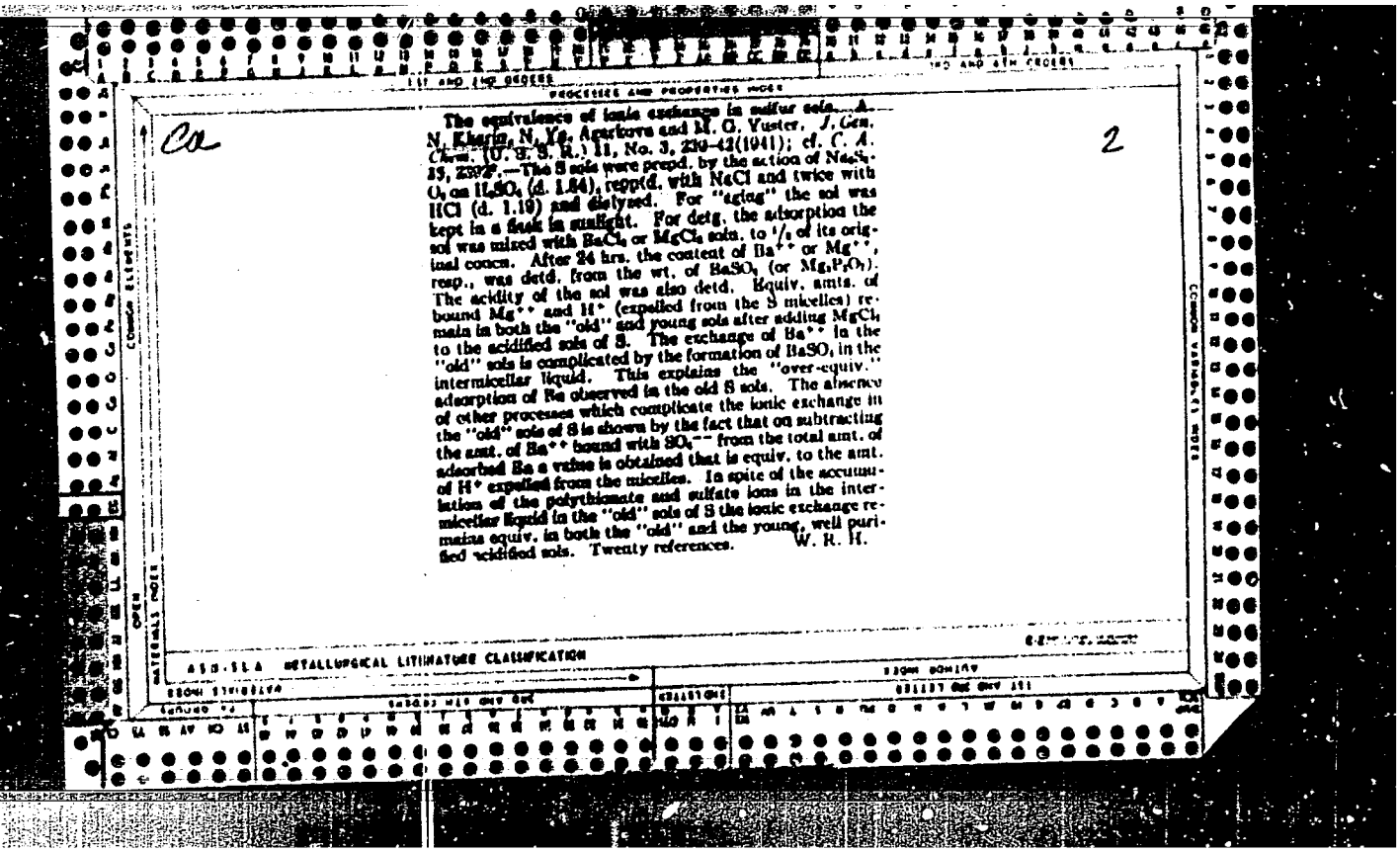
CA

KHAKIN, A-N.

2

The determination of polythionates in the sulfur sols of Sven Odén by the method of Freundlich. A. N. Kharin, P. N. Protasov, N. Ya. Agarkova and M. G. Yuster. *J. Gen. Chem.* (U. S. S. R.) 11, 232-8(1941).—Freundlich's method (*C. A.* 17, 1868) for the detn. of the no. of equivs. of polythionates in the sols of S is exact only for dessicated polythionates, found in the filtrate after the coagulation of the sols. The dessicated polythionates are pentathionates which Freundlich assumes to be stabilizers of Odén's sols of S. The no. of the equivs. of $S_5O_6^{--}$ in the coagulates and sols by Freundlich's detn. appears to be larger than the actual no. of equivs. of micellary polythionates detd. by the method of Bassett and Durrant (*C. A.* 26, 2102), modified by the authors. The divergence of the results of $S_5O_6^{--}$ detn. by Freundlich's method from the actual no. of equivs. of micellary polythionates depends on: the age of the sols, the length of time it has been in coagulated state, the kind of coagulating salt, the duration of the action of NH_4OH upon the sol, etc. This divergence is explained by the fact that there is a reaction between the polythionates and NH_4OH as well as an oxidation. 8 references.

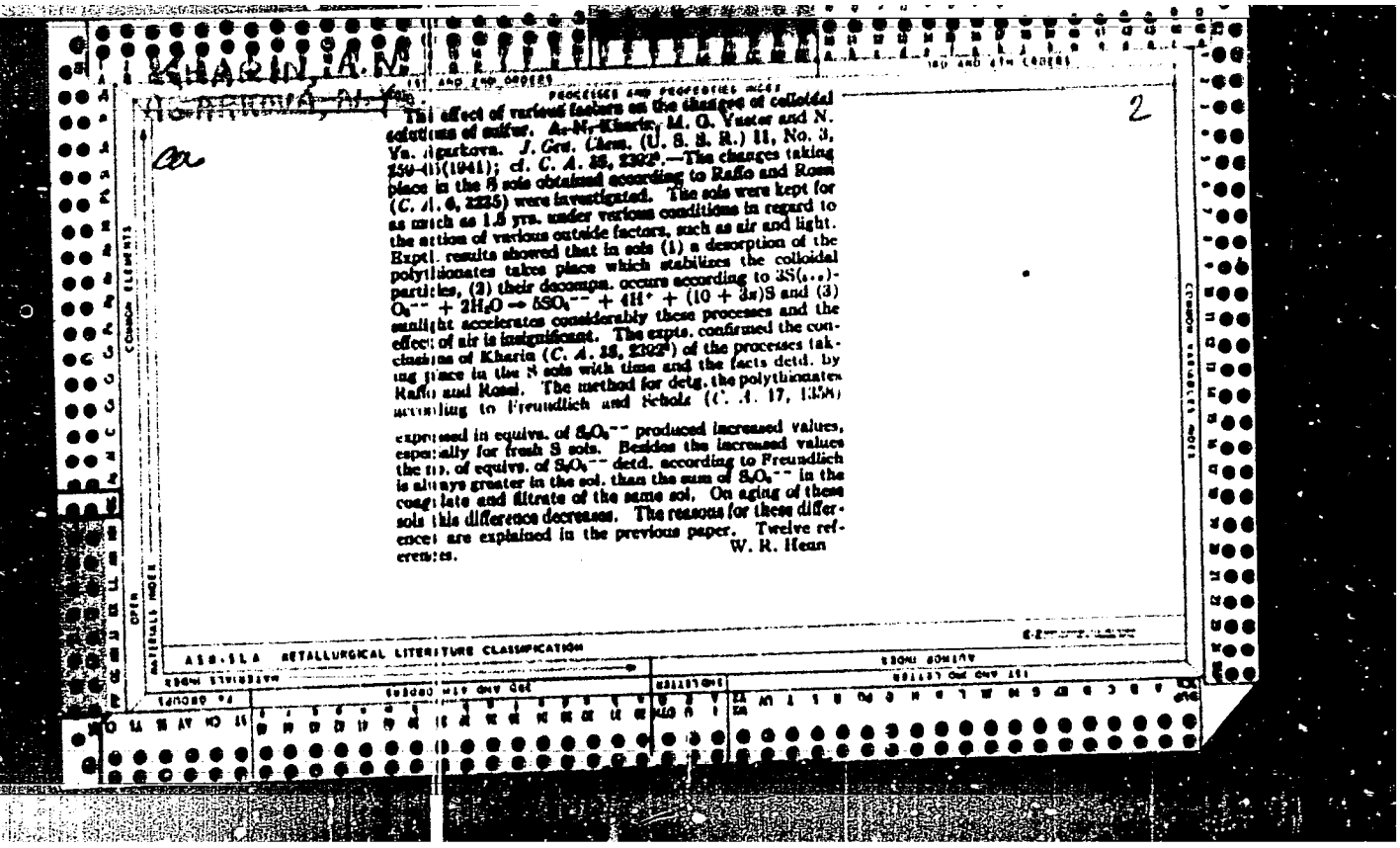
S. Machelaon



Ca

The equivalence of ionic exchange in sulfur sols. A. N. Kharin, N. Ye. Agarkova and M. G. Yuster. *J. Gen. Chem.* (U. S. S. R.) 11, No. 3, 239-42(1941); cf. *C. A.* 35, 2978.—The S sols were prepd. by the action of $Na_2S_2O_3$ on H_2SO_4 (d. 1.84), reppt'd. with NaCl and twice with HCl (d. 1.19) and dialyzed. For "aging" the sol was kept in a flask in sunlight. For detg. the adsorption the sol was mixed with $BaCl_2$ or $MgCl_2$ sols. to $^1/_2$ of its original concn. After 24 hrs. the content of Ba^{++} or Mg^{++}, resp., was detd. from the wt. of $BaSO_4$ (or $Mg_2P_2O_7$). The acidity of the sol was also detd. Equiv. amts. of bound Mg^{++} and H^+ (expelled from the S micelles) remain in both the "old" and young sols after adding $MgCl_2$ to the acidified sols of S. The exchange of Ba^{++} in the "old" sols is complicated by the formation of $BaSO_4$ in the intermicellar liquid. This explains the "over-equiv." adsorption of Ba observed in the old S sols. The absence of other processes which complicate the ionic exchange in the "old" sols of S is shown by the fact that on subtracting the amt. of Ba^{++} bound with SO_4^{--} from the total amt. of adsorbed Ba a value is obtained that is equiv. to the amt. of H^+ expelled from the micelles. In spite of the accumulation of the polythionate and sulfate ions in the intermicellar liquid in the "old" sols of S the ionic exchange remains equiv. in both the "old" and the young, well purified acidified sols. Twenty references. W. R. H.

2



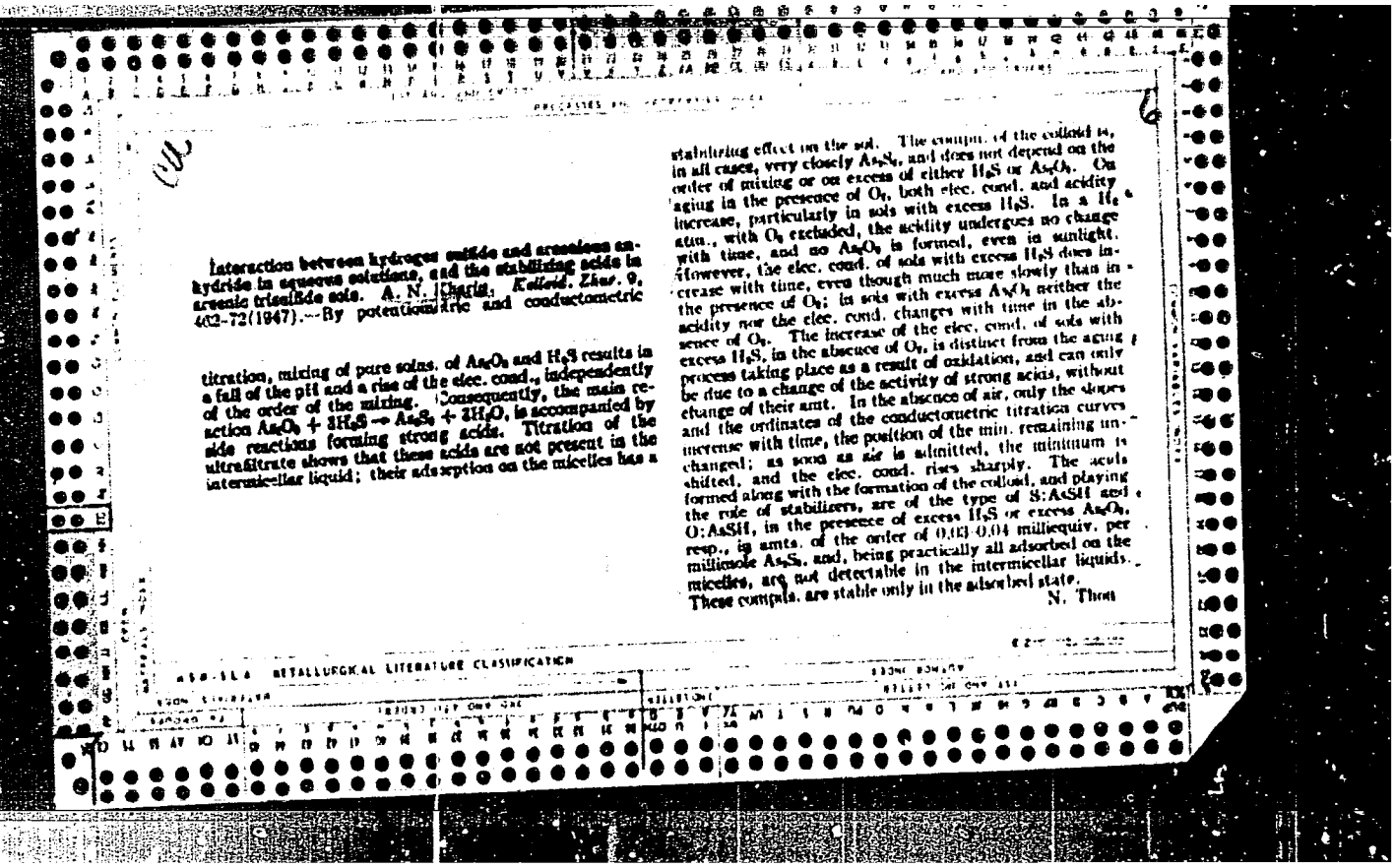
KHARLIN, A. Ya.

2

The effect of various factors on the changes of colloidal solutions of sulfur. A. N. Kharin, M. G. Yuster and N. Ya. Agurtova. *J. Gen. Chem.* (U. S. S. R.) 11, No. 3, 250-61(1941); cf. *C. A.* 35, 2302⁸.—The changes taking place in the S sols obtained according to Raffo and Rossa (*C. A.* 6, 2225) were investigated. The sols were kept for as much as 1.5 yrs. under various conditions in regard to the action of various outside factors, such as air and light. Expt. results showed that in sols (1) a desorption of the polythionates takes place which stabilizes the colloidal particles, (2) their decompn. occurs according to $3S(+_n)O_6^{--} + 2H_2O \rightarrow 5SO_4^{--} + 4H^+ + (10 + 3n)S$ and (3) sunlight accelerates considerably these processes and the effect of air is insignificant. The expts. confirmed the conclusions of Kharin (*C. A.* 35, 2302⁸) of the processes taking place in the S sols with time and the facts detd. by Raffo and Rossi. The method for detg. the polythionates according to Freundlich and Scholz (*C. A.* 17, 1358) expressed in equivs. of $S_2O_3^{--}$ produced increased values, especially for fresh S sols. Besides the increased values the no. of equivs. of $S_2O_3^{--}$ detd. according to Freundlich is always greater in the sol. than the sum of $S_2O_3^{--}$ in the coagulate and filtrate of the same sol. On aging of these sols this difference decreases. The reasons for these differences are explained in the previous paper. Twelve references.

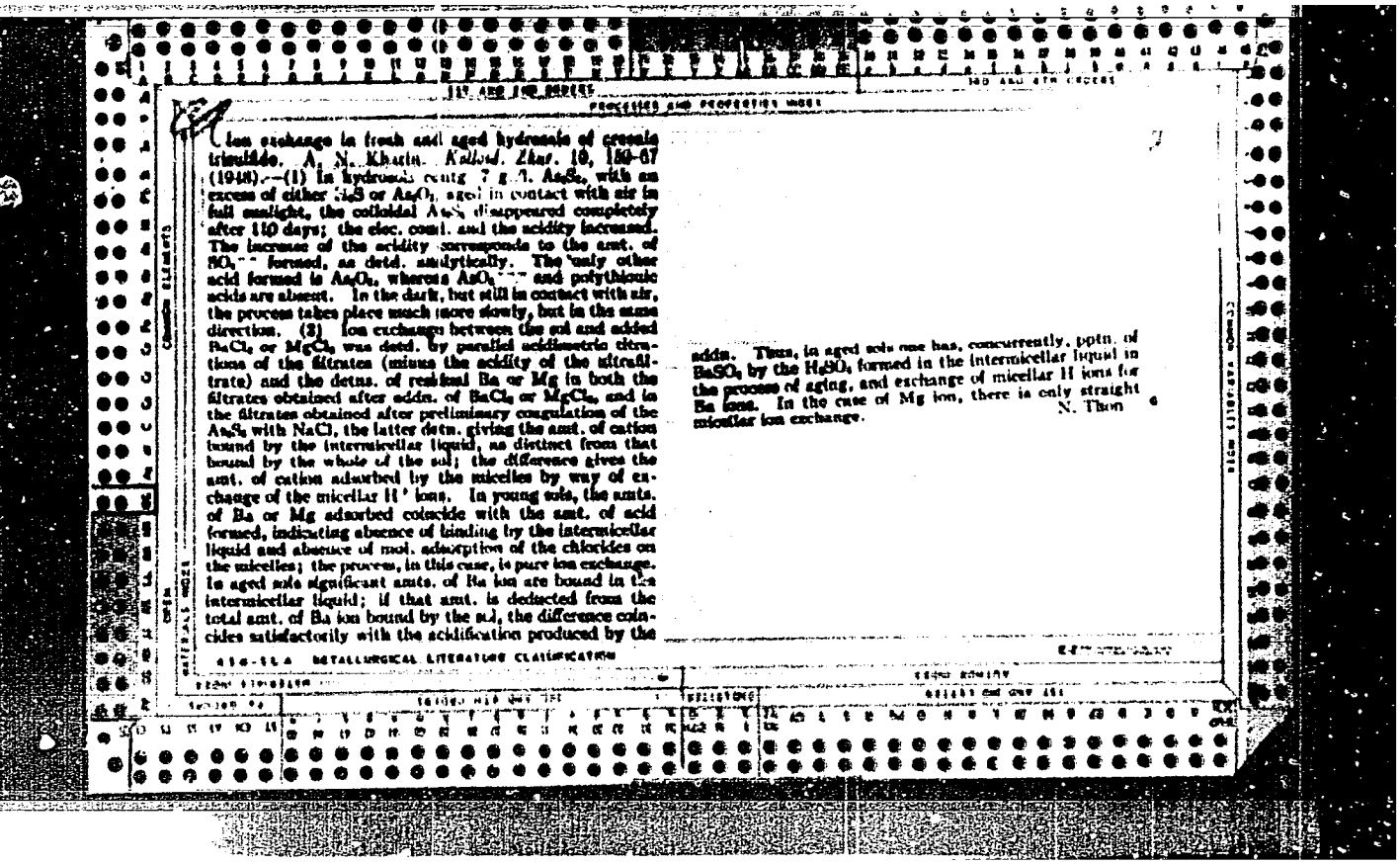
W. R. Hean

A58-51A METALLURGICAL LITERATURE CLASSIFICATION



Interaction between hydrogen sulfide and arsenious anhydride in aqueous solutions, and the stabilizing acids in arsenic trisulfide sols. A. N. Charis. *Kolloid. Zhur.* 9, 462–72(1947).—By potentiometric and conductometric titration, mixing of pure solns. of As_2O_3 and H_2S results in a fall of the pH and a rise of the elec. cond., independently of the order of the mixing. Consequently, the main reaction $As_2O_3 + 3H_2S \rightarrow As_2S_3 + 3H_2O$, is accompanied by side reactions forming strong acids. Titration of the ultrafiltrate shows that these acids are not present in the intermicellar liquid; their adsorption on the micelles has a stabilizing effect on the sol. The compn. of the colloid is, in all cases, very closely As_2S_3, and does not depend on the order of mixing or on excess of either H_2S or As_2O_3. On aging in the presence of O_2, both elec. cond. and acidity increase, particularly in sols with excess H_2S. In a H_2 atm., with O_2 excluded, the acidity undergoes no change with time, and no As_2O_3 is formed, even in sunlight. However, the elec. cond. of sols with excess H_2S does increase with time, even though much more slowly than in the presence of O_2; in sols with excess As_2O_3 neither the acidity nor the elec. cond. changes with time in the absence of O_2. The increase of the elec. cond. of sols with excess H_2S, in the absence of O_2, is distinct from the aging process taking place as a result of oxidation, and can only be due to a change of the activity of strong acids, without change of their amt. In the absence of air, only the slopes and the ordinates of the conductometric titration curves increase with time, the position of the min. remaining unchanged; as soon as air is admitted, the minimum is shifted, and the elec. cond. rises sharply. The acids formed along with the formation of the colloid, and playing the rôle of stabilizers, are of the type of S:AsSH and O:AsSH, in the presence of excess H_2S or excess As_2O_3, resp., in amts. of the order of 0.03–0.04 milliequiv. per millimole As_2S_3, and, being practically all adsorbed on the micelles, are not detectable in the intermicellar liquids. These compds. are stable only in the adsorbed state.

N. Thon



Ion exchange in fresh and aged hydrosols of cerous trisulfide. A. N. Khatin. *Kolloid. Zhur.* 10, 159-67 (1948).—(1) In hydrosols contg 7 g. l. As_2S_3, with an excess of either H_2S or As_2O_3, aged in contact with air in full sunlight, the colloidal As_2S_3 disappeared completely after 110 days; the elec. cond. and the acidity increased. The increase of the acidity corresponds to the amt. of SO_4^{--} formed, as detd. analytically. The only other acid formed is As_2O_5, whereas AsO_4^{---} and polythionic acids are absent. In the dark, but still in contact with air, the process takes place much more slowly, but in the same direction. (2) Ion exchange between the sol and added $BaCl_2$ or $MgCl_2$ was detd. by parallel acidimetric titrations of the filtrates (minus the acidity of the ultrafiltrate) and the detns. of residual Ba or Mg in both the filtrates obtained after addn. of $BaCl_2$ or $MgCl_2$, and in the filtrates obtained after preliminary coagulation of the As_2S_3 with NaCl, the latter detn. giving the amt. of cation bound by the intermicellar liquid, as distinct from that bound by the whole of the sol; the difference gives the amt. of cation adsorbed by the micelles by way of exchange of the micellar H^+ ions. In young sols, the amts. of Ba or Mg adsorbed coincide with the amt. of acid formed, indicating absence of binding by the intermicellar liquid and absence of mol. adsorption of the chlorides on the micelles; the process, in this case, is pure ion exchange. In aged sols significant amts. of Ba ion are bound in the intermicellar liquid; if that amt. is deducted from the total amt. of Ba ion bound by the sol, the difference coincides satisfactorily with the acidification produced by the adds. Thus, in aged sols one has, concurrently, pptn. of $BaSO_4$ by the H_2SO_4 formed in the intermicellar liquid in the process of aging, and exchange of micellar H ions for Ba ions. In the case of Mg ion, there is only straight micellar ion exchange.

N. Thon

USSR/Chemistry - Absorption, of Acetic Acid, Oct 48
by Carbon (Contd)

sorption on carbon and establishes their dependence on speed of flow of solution and diameter of carbon grains. Calculation based on this data of asymptotic course of relationship between time of protective action and length of carbon layer gives, for long periods, results in good agreement with experiment.
Submitted 27 Dec 47.

21/49T12

LC

21/49T12

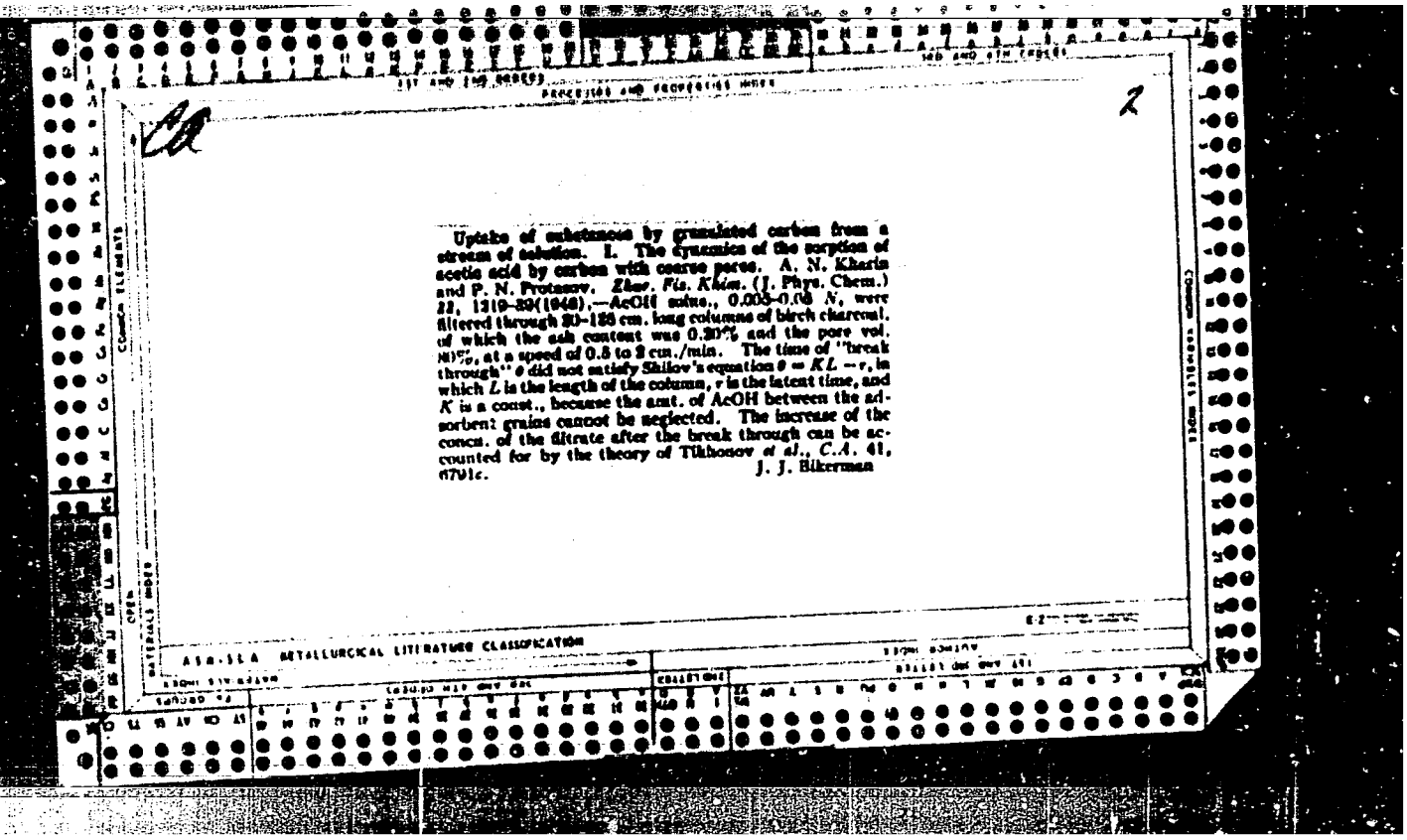
USSR/Chemistry - Absorption, of Acetic Acid Oct 48
by Carbon
Chemistry - Acetic Acid, Adsorption of

"Absorption of Substances by Granulated Carbon From a Flow of Solution: I, The Analysis of Dynamics of Acetic Acid Sorption by Coarse Porous Carbon," A. N. Kharin, P. N. Protasov, Krasnodar Pedagogical and Teachers' Inst, 20½ pp

"Zhur Fiz Khimii" No 10

Studies dynamics of sorption of CH_3COOH from aqueous solutions of coarse carbon. Using theory of sorption dynamics developed by Zhukhovitskiy, Zabezhinskiy and Tikhonov, calculates kinetic coefficients of acid

21/49T12



Uptake of substances by granulated carbon from a stream of solution. I. The dynamics of the sorption of acetic acid by carbon with coarse pores. A. N. Kharin and P. N. Protasov. *Zhur. Fiz. Khim.* (J. Phys. Chem.) 22, 1319–39(1948).—AcOH solns., 0.005–0.05 *N*, were filtered through 30–150 cm. long columns of birch charcoal, of which the ash content was 0.20% and the pore vol. 80%, at a speed of 0.5 to 2 cm./min. The time of "break through" θ did not satisfy Shilov's equation $\theta = KL - r$, in which L is the length of the column, r is the latent time, and K is a const., because the amt. of AcOH between the adsorbent grains cannot be neglected. The increase of the concn. of the filtrate after the break through can be accounted for by the theory of Tikhonov *et al.*, *C.A.* 41, 6791c.

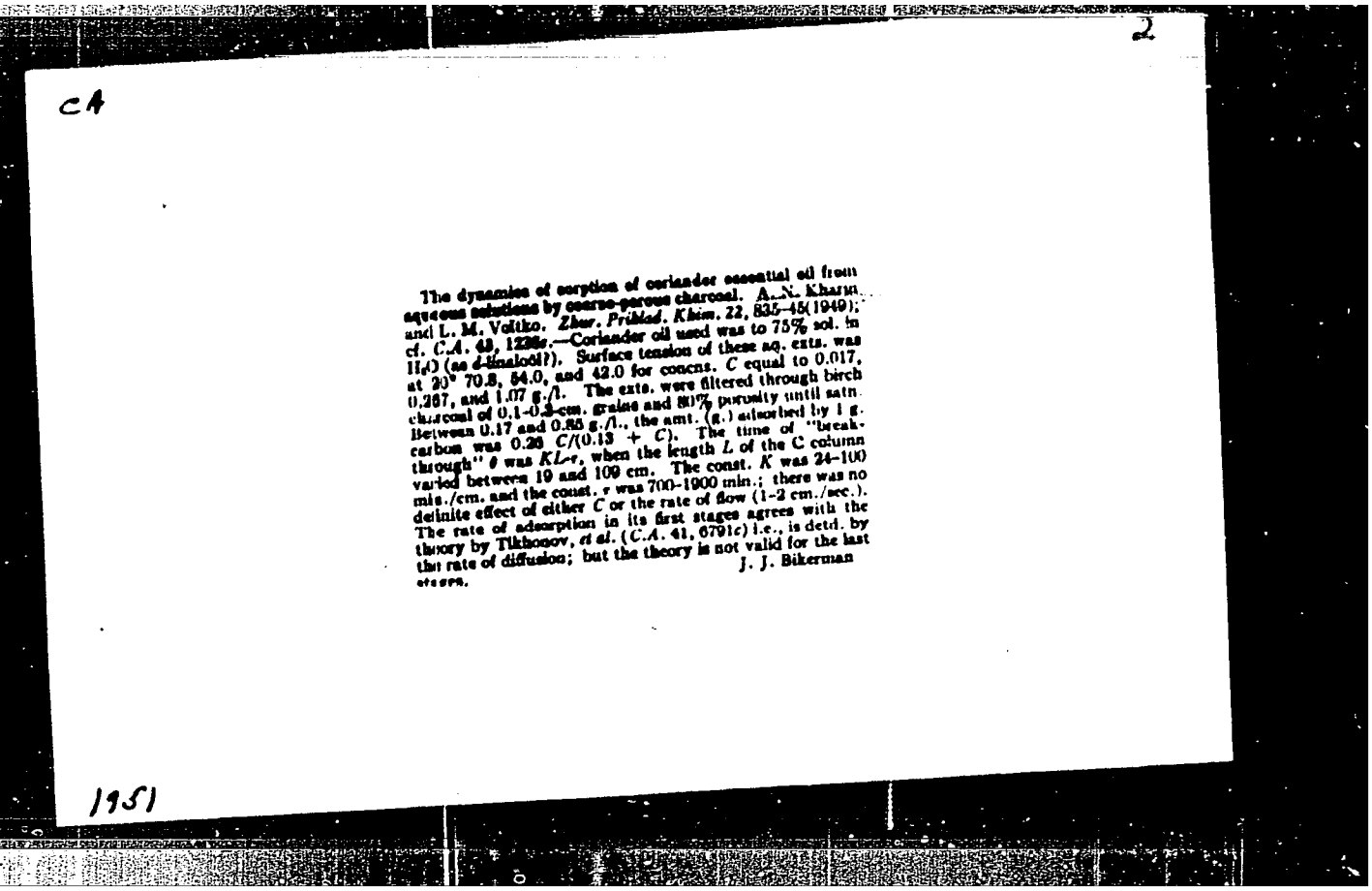
J. J. Bikerman

[redacted], A. N. I [redacted], L. P.

26971

Issledovanie Dinamiki Sorbtsii Koriandrovogo Efirnogo Masla Iz Vodnykh Rastvorov Krupnoporistym Uglem (Soobshch. 2). Zhurnal Prikl. Khimii, 1949, No. 8, S. 835-45. - Bibliogr: 11 Nazv.

SO: LETOPIS NO. 34



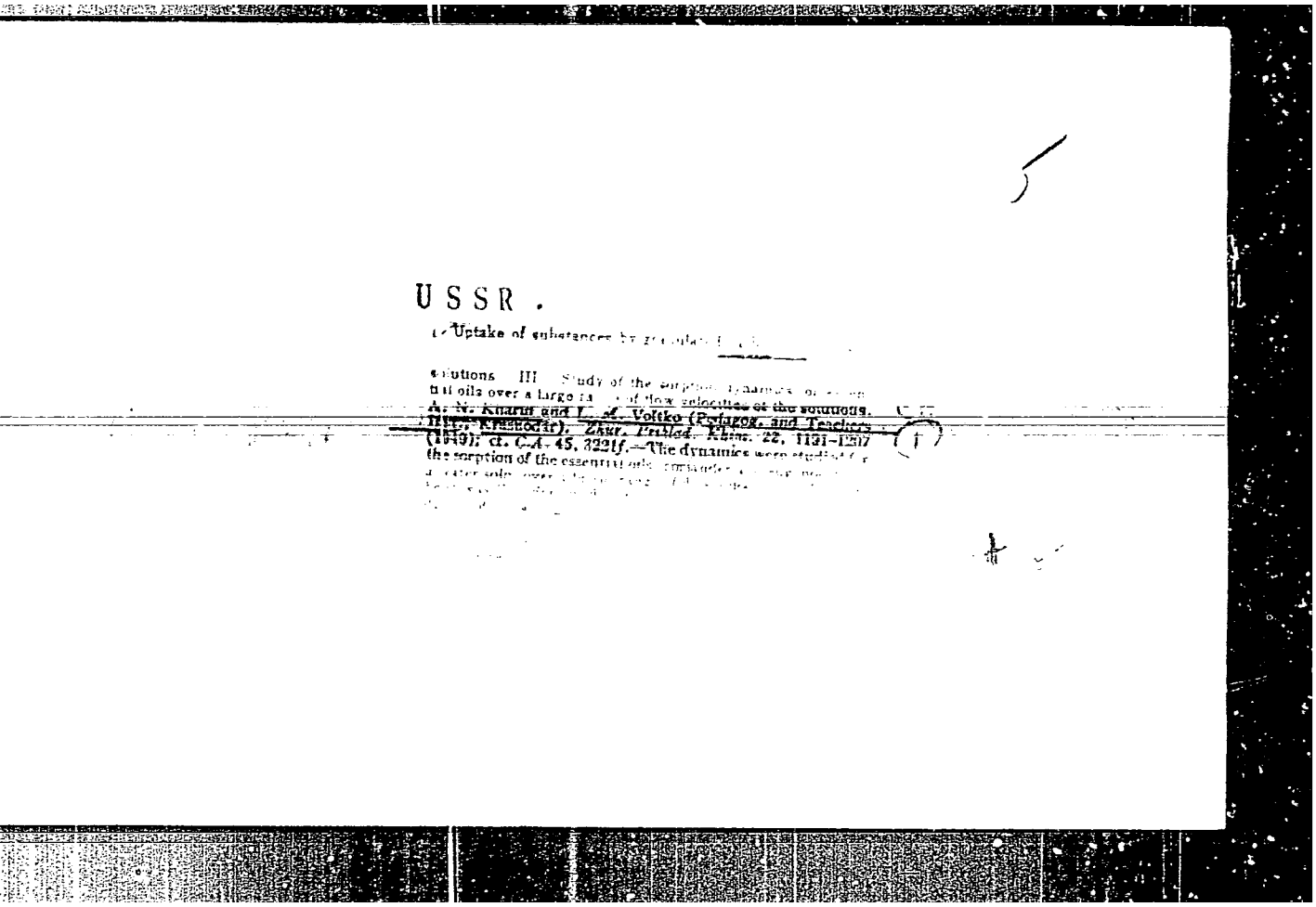
2

CA

The dynamics of sorption of coriander essential oil from aqueous solutions by coarse-porous charcoal. A. N. Kharin and L. M. Voitko. *Zhur. Prikład. Khim.* 22, 835–45(1949); cf. *C.A.* 43, 1238e.—Coriander oil used was to 75% sol. in H_2O (as *d*-linalool?). Surface tension of these aq. exts. was at 20° 70.8, 54.0, and 42.0 for concns. C equal to 0.017, 0.267, and 1.07 g./l. The exts. were filtered through birch charcoal of 0.1–0.3-cm. grains and 80% porosity until satn. Between 0.17 and 0.85 g./l., the amt. ($g.$) adsorbed by 1 g. carbon was 0.26 $C/(0.13 + C)$. The time of "breakthrough" θ was $KL-r$, when the length L of the C column varied between 19 and 109 cm. The const. K was 24–100 min./cm. and the const. r was 700–1900 min.; there was no definite effect of either C or the rate of flow (1–2 cm./sec.). The rate of adsorption in its first stages agrees with the theory by Tikhonov, *et al.* (*C.A.* 41, 6791c) i.e., is detd. by that rate of diffusion; but the theory is not valid for the last steps.

J. J. Bikerman

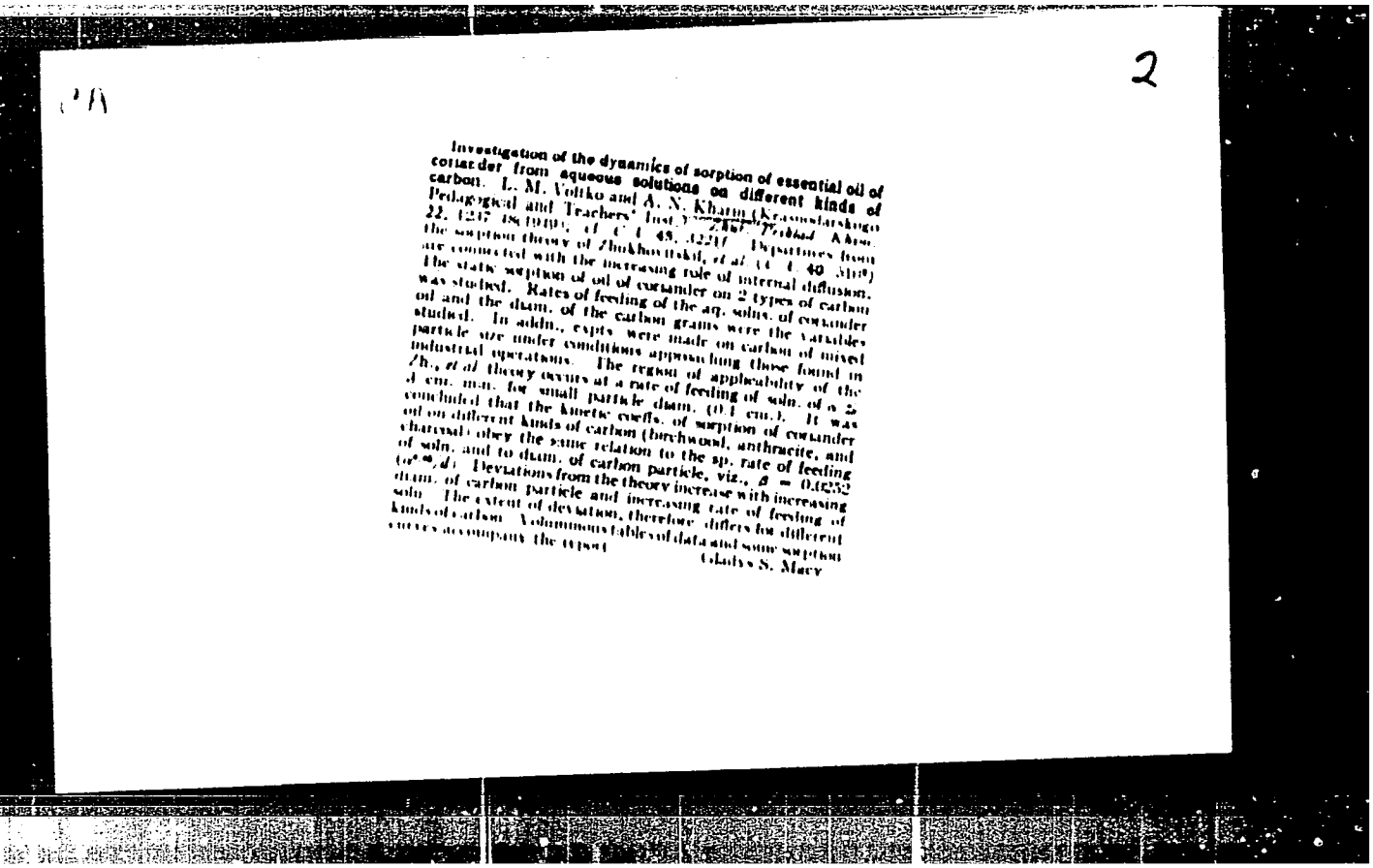
1951



USSR .

(Uptake of substances by [illegible]

solutions III Study of the [illegible] dynamics of [illegible] oil oils over a large ra[illegible] of flow velocities of the solutions. A. V. Kharin and I. [illegible] Voitko (Pedagog. and Teachers Inst., Kremenchug). Zhur. Prikład. Khim. 22, 1131-1207 (1949); cf. C.A. 45, 322if.—The dynamics were studied for the sorption of the essential oils [illegible]



2

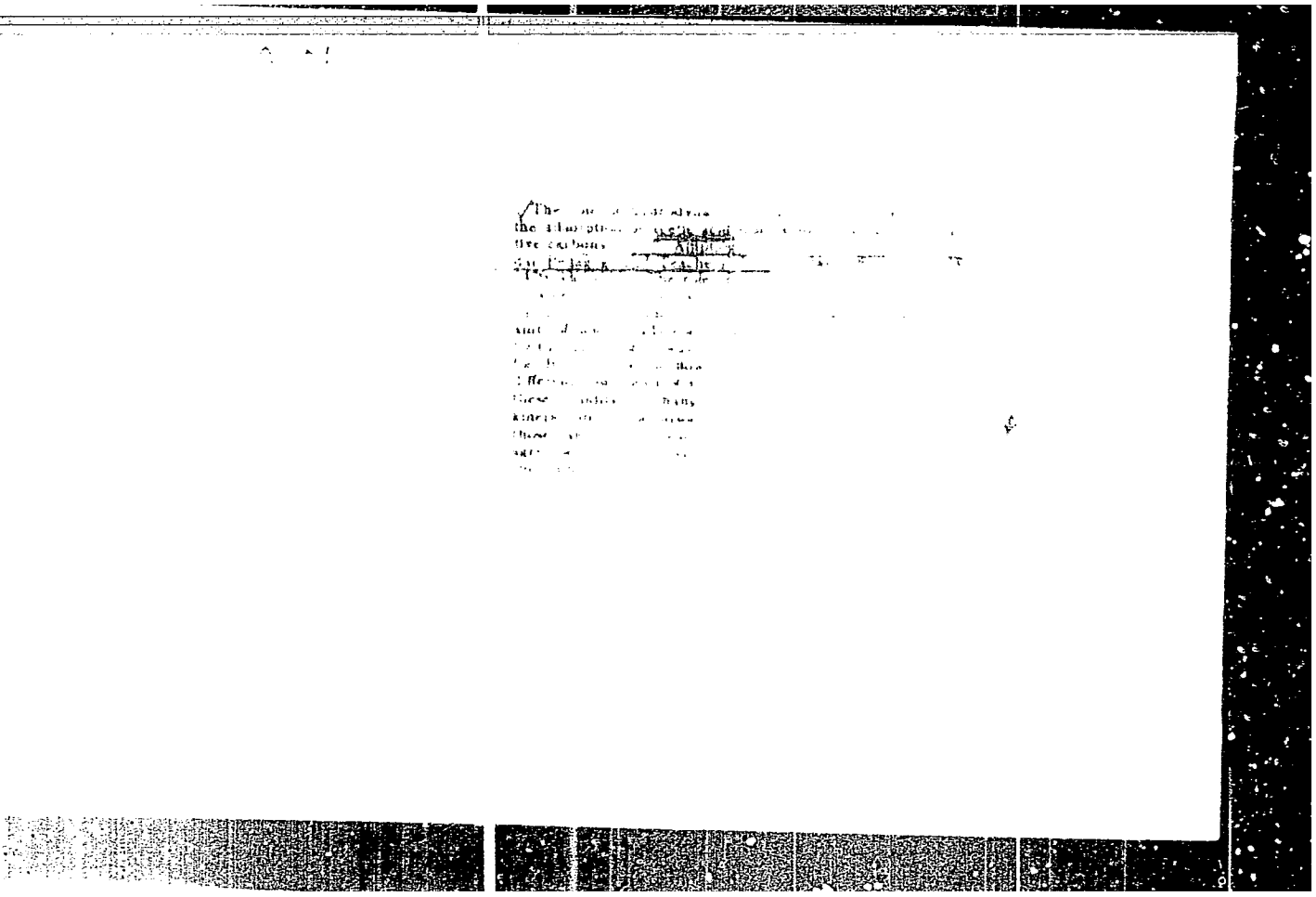
Investigation of the dynamics of sorption of essential oil of coriander from aqueous solutions on different kinds of carbon. L. M. Voitko and A. N. Kharin (Krasnoiarskogo Pedagogical and Teachers' Inst.) [illegible] Abstr. 22, 1247 (1958); cf. C. A. 48, 1231f. Departures from the sorption theory of Zhukhovitskii, *et al.* (C. A. 40, 3519) are connected with the increasing role of internal diffusion. The static sorption of oil of coriander on 2 types of carbon was studied. Rates of feeding of the aq. solns. of coriander oil and the diam. of the carbon grains were the variables studied. In addn., expts. were made on carbon of mixed particle size under conditions approaching those found in industrial operations. The region of applicability of the Zh., *et al.* theory occurs at a rate of feeding of soln. of *a* 2 cc. min. for small particle diam. (0.1 cm.). It was concluded that the kinetic coeffs. of sorption of coriander oil on different kinds of carbon (birchwood, anthracite, and charcoal) obey the same relation to the sp. rate of feeding of soln. and to diam. of carbon particle, viz., $\beta = 0.0252 (a^{0.8}/d)$. Deviations from the theory increase with increasing diam. of carbon particle and increasing rate of feeding of soln. The extent of deviation, therefore, differs for different kinds of carbon. No numerous tables of data and some sorption curves accompany the report.

Gladys S. Macy

CA

The uptake of substances by granulated carbon from a stream of solution. Sorption dynamics of butyric acid from aqueous solutions. P. N. Protasov, A. N. Kharin, L. M. Voitko, T. G. Bogolyubova, and L. G. Svintsova (Pedagog. and Teachers Inst., Krasnodar). *Zhur. Fiz. Khim.* 24, 182-91(1950); cf. *C.A.* 43, 1238*e*.—Butyric acid solns. (0.01-0.03 *N*) were filtered through columns, *l* cm. long, of birch charcoal whose particle diam. *d* was 0.15-0.325 cm. The time θ of break-through was $\theta_0 = (al/u)$, *u* cm. sec. is the rate of filtration. The consts. θ_0 and *a* are given. The kinetic coeff. $\beta = -0.037\ d^{0.61}/d^{1.66}$; the factor in it (0.037) seems to be inversely proportional to $\sqrt{M}$; *M* = mol. wt. At $n = 1$, the increase of concn. of the filtrate in time agreed with the theory of Zaber-hinskii, *et al* (*C.A.* 43, 5255*b*), but at $n = 5$ the exptl. is smaller than the theoretical θ because internal diffusion becomes slower than the external. J. J. B.

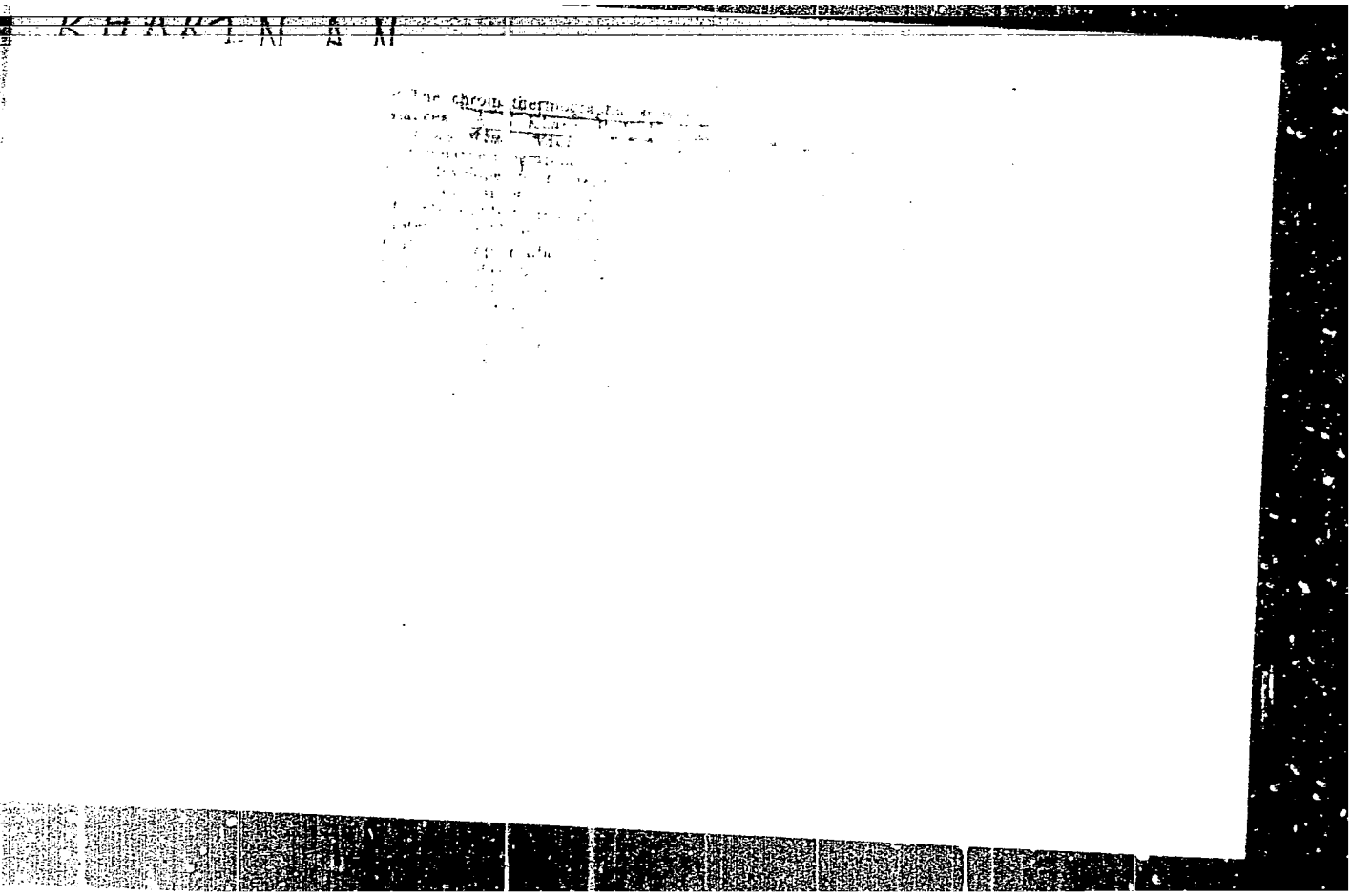
Mechanism of the changing conditions of layers of carbon under different conditions of dynamic sorption of some essential oils from aqueous solutions. L. M. Voitko and A. N. Khagin. *Zhur. Prikład. Khim.* 24, 509-19(1951); *J. Applied Chem. U.S.S.R.* 24, 557-67(1951)(English trans.); cf. *C.A.* 46, 3221*f*.—The range was detd. of a and d, for the sorption of essential oils from aq. solns., where a is the rate of flow of soln. and d is the av. diam. of the carbon particles. Results are tabulated. Gladys S. Macy

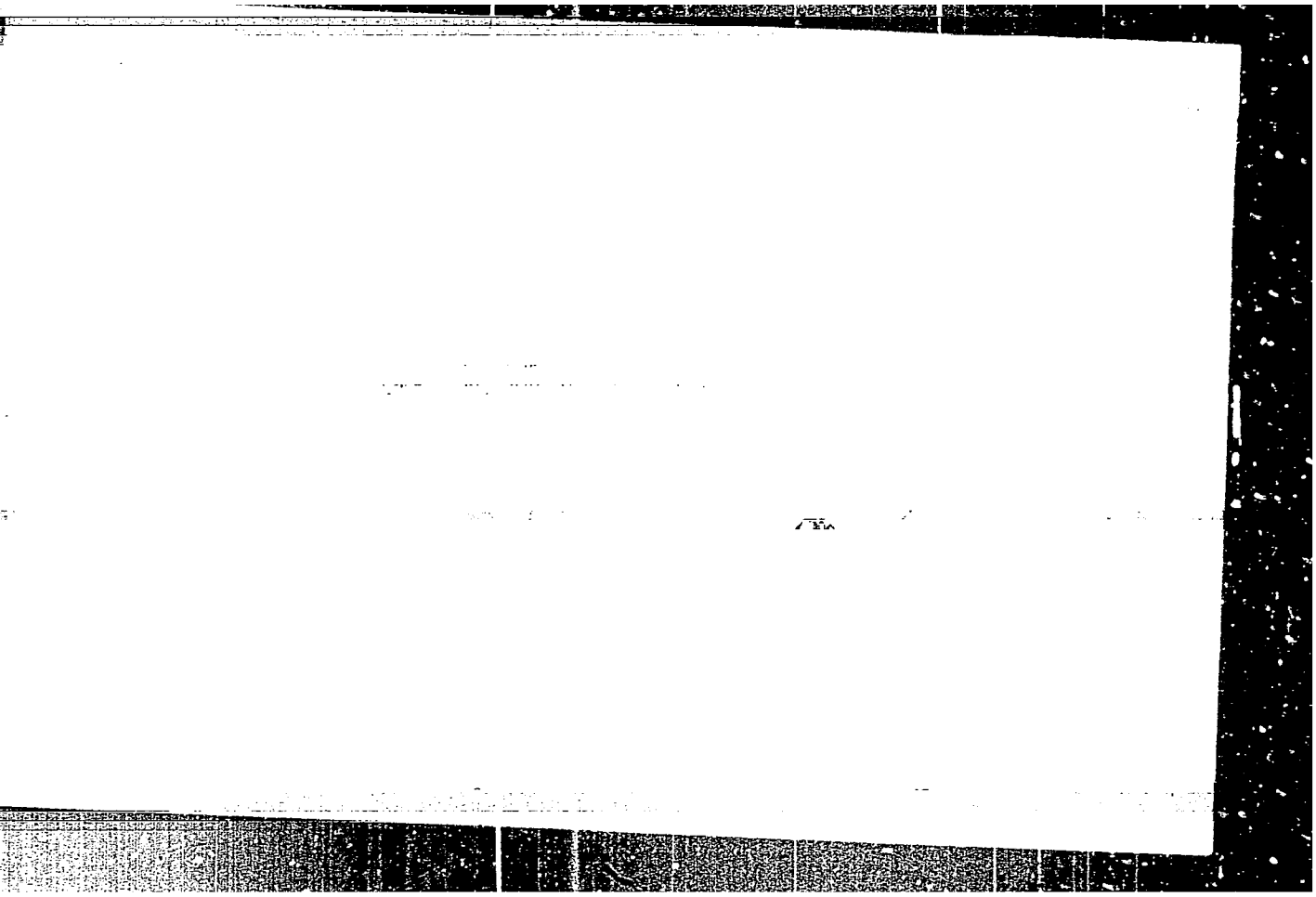


KHARIN, A. N.

@

Dynamics of the sorption of essential oil of roses from aqueous solutions on to grains of activated carbon. A. N. Kharin and L. M. Voitko. *J. Appl. Chem. U.S.S.R.* 25, 307–408(1952)(Engl. translation); *Zhur. Priklad. Khim.* 25, 362–72(1952).—The dynamic sorption of essential oil of roses on granular C was studied by taking into account the previous expt. of the authors (*C.A.* 46, 5020*d*, 8400*d*). The essential oil of roses from Simferopol, contg. phenylethyl alc. (I) 55, citronellol (II) 30, geraniol 2, stearoptenes 5, acids 1, and phenols 0.5, was used. From this oil a 0.03% water soln. was prepd. for the slots. For control, several separate sorption tests were made with I and II. Dynamic expts. with these solns. were carried out as mentioned in previous articles. There is some differentiation of the main components of the oil; II is more strongly adsorbed in the initial portion of the C layer, whereas I is held back to the final portion. This sepn. is incomplete. The time of operation of a C layer can be calcd. approx. from the sorption isotherms for rose oil at a given temp. With longer time of operation of the adsorber and sufficient length of C layer, the distribution of separate substances should be appreciably differentiated. Several tables of data and soln. curves and surface tension isotherms are given. A. Hulsg





KHARIN A.N

USSR/ Chemistry - Physical chemistry

Card 1/1 Pub. 24 - 15/21

Authors : Kharin, A. N., and Lotmentseva, Ye. M.

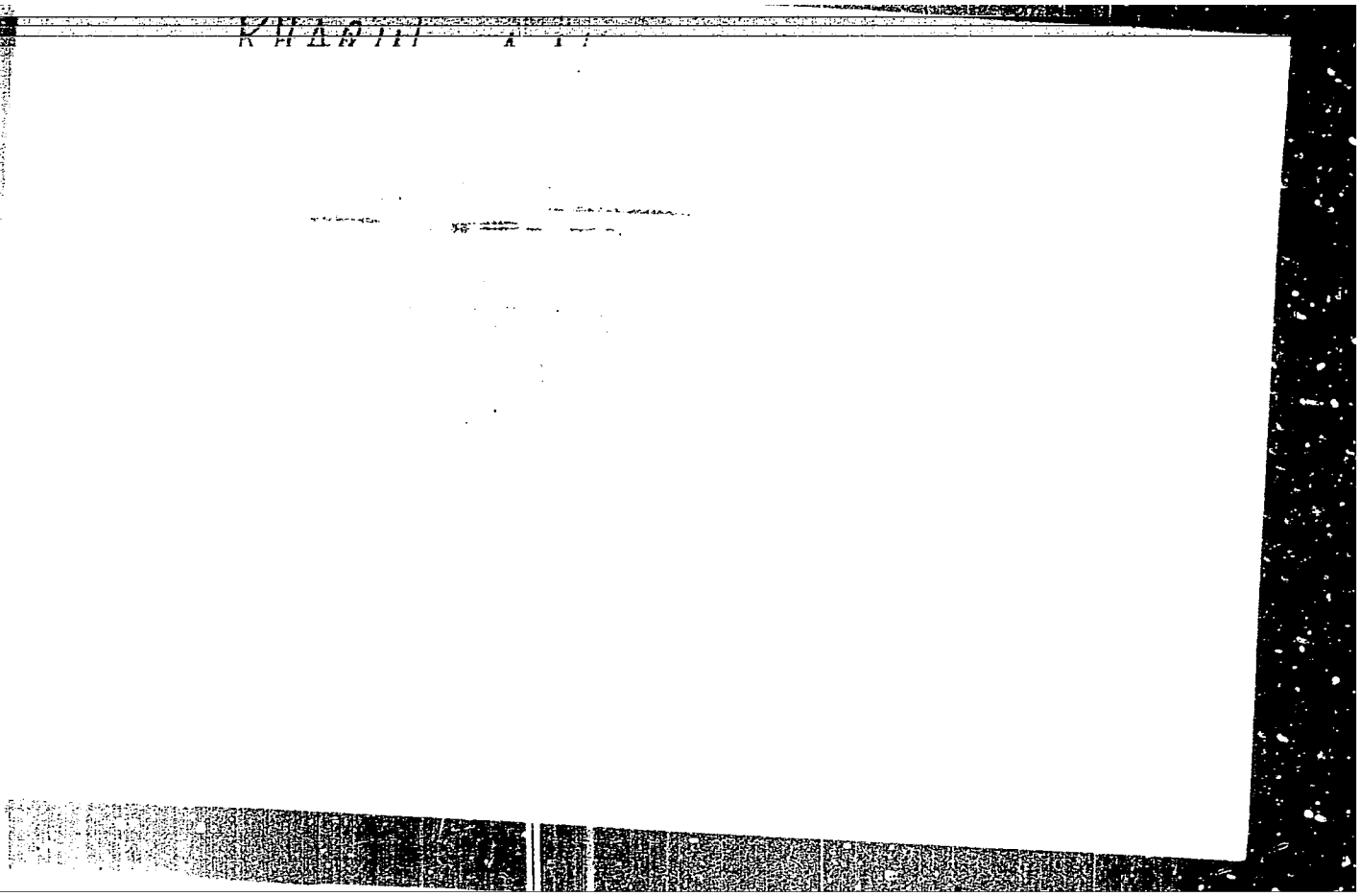
Title : Dynamics of adsorption of substance mixtures from aqueous solutions over carbon studied by means of the [illegible] indicator method

Periodical : Zhur. fiz. khim. 29/10, 1883-1896, Oct 1955

Abstract : The dynamics of adsorption of acetic and butyric acid mixtures from aqueous solutions over granular carbon was investigated. Employing a newly developed marked atom method it became possible to determine the content of acetic acid adsorbed by the carbon and in the mixture of acetic and butyric acid in solution. Certain laws governing the [illegible] dynamics of acetic and butyric acid mixtures from [illegible] granular birch carbon are described. Thirteen USSR references (1939-1954). Tables; graphs.

Institution : Taganrog Radiotechnical Inst. and the Krasnodar Pedagogical Inst.

Submitted : March 28, 1955



USSR / General Biology. General Hydrobiology. B-4

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 61975

Authors : Yemel'yanov, M. A.; Kharin, A. N.
Inst : Smolensk State Institute of Pedagogics.
Title : Investigating the Reservoirs of the Floodlands of the Kuban' River. I. Soil Deposits of Old Kuban'.

Orig Pub : Uch. zap. Smolenskogo gos. ped. in-ta, 1956, vyp. 3, 241-263

Abstract : In the years of 1931-1932, soil deposits of Old Kuban' in the floodlands of the Kuban' River were investigated. In the central part of the reservoir the basic soil mass is represented by small mineral particles. There, silts present (according to structure percentage of various fractions) silt-containing sandy clay. Organic remnants of the soil (10-12 percent) consist of detritus and dead animal plankton. Soils of near-shore zones are characterized by their containing large amounts of sand fractions. They are

Card 1/2

USSR/Physical Chemistry - Surface Phenomena. Adsorption. Chromatography. Ion Exchange. B-13

Abs Jour : Referat Zhur - Khimiya, No 6, 25 March 1957, 18761

Author : Kharin, A.N. and Svintsova, L.G.
Inst : Zh. fiz. khimii, 1946, 1113
Title : Dynamics and Kinetics of Adsorption of Iodine Upon Coals from Aqueous and Alcoholic Solutions.

Orig Pub : Zh. fiz. khimii, 1956, 30, 1776-1791

Abstract : Static and kinetic coefficients of adsorption (A) of I_2 on 4 samples of activated coal from solutions in H_2O, in aqueous solutions of KI and in C_2H_5OH at 17°-25° were measured. The influence of the speed of movement of the solution upon (A) and the change of distribution of I_2 on coal with time were studied. It was shown that the speed of (A) depends on the speed both of external and internal transfer. An agreement was obtained with the theory of A.N. Tikhonov, A.A. Zhukhovitskiy and Ya.L. Zabezhinskiy

Card 1/2

 Radiotech Inst, Sagamog

Investigation of the Longitudinal Displacement in the Flow of Solutions Through a Non-Sorbing Charge

tain velocity exists, in the case of which no noticeable longitudinal displacement is to be observed. The coefficients of the longitudinal displacement in the case of acetic acid and oleic acid are equal. The general relation between the coefficients of the longitudinal displacement D* in cm^2/sec, the grain diameter d in cm and the velocity α' in cm/sec is expressed by a formula, which, however, does not apply in the case of very small velocities (because it does not transform into the molecular diffusion coefficient): $D^* = (0,079 + 1,4\ d)\ \alpha' + 0,005d-0,0029$. It is shown that the D*-values found according to this equation coincide with those obtained by the experiments, and that the above-mentioned equation expresses well the relation between the coefficient of the longitudinal displacement and the linear velocity when acetic- and oleic acid is supplied to the glass-charge with grains of different diameter. There are 4 figures, 3 tables, and 6 references, all of which are Slavic.

Card 2/3

Investigation of the Longitudinal Displacement in the Flow of Solutions Through a Non-Sorbing Charge

76-1-21/32

ASSOCIATION: Pedagogical Institute, Krasnodar. Radiotechnical Institute, Taganrog (Krasnodarskiy pedagogicheskiy institut. Taganrogskiy radiotekhnicheskiy institut)

SUBMITTED: October 26, 1956

AVAILABLE: Library of Congress

Card 3/3

AUTHORS: Kharin, A. N. , Ampilogov, I. Ye. 76-32-2-16/38

TITLE: A Comparative Evaluation of the Part Played by Kinetic Factors in the Dynamics of Adsorption of Acetic- and Butyric Acid From Their Aqueous Solutions on a Charcoal Bed (Sravnitel'naya otsenka roli kineticheskikh faktorov v dinamike adsorbtsii uksusnoy i maslyanoy kislot iz vodnykh rastvorov na ugol'noy shikhte)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 2, pp. 341-348 (USSR)

ABSTRACT: An evaluation of the relative part of internal, external and longitudinal transport in the dynamic adsorption of acetic- and butyric acid from aqueous solutions on two charcoal sorts of different granulation at various flow velocities was carried out. According to O. M. Todes and Ya. M. Bikson β denotes the effective kinetic coefficient which depends on the kinetic coefficient of the external transport β' and that of internal transport β'', and in dynamic adsorption addi-

Card 1/4

A Comparative Evaluation of the Part Played by Kinetic Factors in the Dynamics of Adsorption of Acetic- and Butyric Acid From Their Aqueous Solutions on a Charcoal Bed

76-32-2-16/38

tionally depends on the ratio D^*/α'^2. α' denotes the specific velocity of flow computed for the free layer cross-section. D^* denotes the so-called effective coefficient for longitudinal transport, which depends on the heterogeneity of the layer packing, the convection mixture and the velocity of molecular diffusion along the layer. It is shown that between the averaged kinetic coefficients obtained by means of dynamic experiments and those obtained by kinetic experiments did show no essential differences. Therefore β values from both experiments were used here. From the fact that the averaged effective coefficients β of butyric acid, obtained by kinetic and dynamic experiments, at the same velocities of flow, the same concentrations of the solutions transported on the same types of charcoal of the same granulation, were very close or equal to each other, it is concluded that the part played by longitudinal transport, as a kinetic factor in the adsorption of the charcoal layer from the flow is not great. This is confirmed by a comparison of the parts played by all three kinetic factors. The relative part played by the external and internal transport is essentially greater

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A Comparative Evaluation of the Part Played by Kinetic Factors in the Dynamics of Adsorption of Acetic- and Butyric Acid From Their Aqueous Solutions on a Charcoal Bed

than that of longitudinal transport. It is shown that in the adsorption of butyric acid from solutions of constant concentrations (10 mMol/liter) the external transport plays the main part in all sorts of charcoal and in all ranges of α'- and d values investigated ($1/\beta' \gg 1/\beta''$). Only at a velocity of α = 8 cm/min (α' = 0,290 cm/sec) with the solid charcoal Nr 9 the part of internal transport ($1/\beta'$: $1/\beta''$ = = 56,4 : 42,4) becomes measurable. In the case of the adsorption of acetic acid on a birch-charcoal from solutions of small concentrations (7 mMol/liter) the external transport plays a main part as well. Already at α = 3 cm/min and grains of a d =0,325 cm , and with α = 8 cm/min and grains of a d = 0,25 cm, however, the amount of internal transport becomes measurable with that of external transport. With a further increase of the velocity of flow (or an increase of the grain-diameter of the charcoal) the part played by internal transport becomes dominating. With great concentration of

A Comparative Evaluation of the Part Played by Kinetic Factors in the Dynamics of Adsorption of Acetic- and Butyric Acid From Their Aqeous Solutions on a Charcoal Bed

acetic acid (30 mMol/liter) the adsorption velocity mainly depends on the internal transport. With more dense (more solid) charcoal Nr 9 (anthracite) internal diffusion takes place slower than in the case of birch charcoal (β'' is smaller). Therefore its limiting influence in anthracite is relatively greater than in the case of the adsorption of acids on birch charcoal on comparable conditions. There are 1 figure, 4 tables, and 11 references, 11 of which are Soviet.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut. Krasnodarskiy pedagogicheskiy institut (Institute for Radiotechnical Engineering, Taganrog. Pedagogic Institute, Krasnodar)

SUBMITTED: October 26, 1956

1. Acetic acid--Adsorption 2. Butyric acid--Adsorption
3. Charcoal--Adsorptive properties 4. Adsorption--Analysis

Card 4/4

AUTHORS: Kharin, A. N., Vereshchagina, V. I. SOV/76-32-8-25/37

TITLE: The Effect of Electrolytes on the Statics and Kinetics of Iodine Adsorption From Solutions by Charcoal (Vliyaniye elektrolitov na statiku i kinetiku adsorbtsii yoda uglem iz rastvorov)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 8, pp. 1878-1888 (USSR)

ABSTRACT: It was assumed that an acceleration of the internal transfer of the iodine molecules in carbon particles in the presence of iodide is caused by the formation of the complex ion $(J.J_2)^{-1}$. The formation of polyiodide anions considerably increases the solubility of iodine in water in the case of iodine additions. As also bromide and chloride increase the water solubility of iodine the authors carried out experiments using KJ (in water and alcohol), KBr, NaCl and Na_2SO_4. The latter decreases the solubility and is said to make possible a better evaluation of the investigations. In the investigations pretreated birchcharcoal of a certain granulation was used which

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had a surface oxide of the type B according to Shilov (Ref 6). A description of the technique is given. The effective kinetic coefficients were calculated by means of an equation based on the theory by A. A. Zhukhovitskiy, A. N. Tikhonov and Ya. L. Zabezhinskiy (Ref 9), as well as O. M. Todes and Ya. M. Bikson (Ref 10). From the experimental results may be seen that the iodide exerts the greatest influence on the adsorption kinetics investigated; then the bromide and chloride follow according to their effect, whereas the sulfate did not display any noticeable influence. The observation made that in the case of a small granulation of the carbon (0,075 cm) no differences of the adsorption rates exist in the beginning is explained by the predominant external diffusion. The changes of the adsorption rate noticed in the case of coarser granulation, which are still greater in alcoholic solution (in the case of KJ), are explained by an acceleration of the internal transfer. A detailed explanation of the experimental results obtained is given. There are 6 figures, 5 tables, and 11 references, all of which are Soviet.

SOV/76-32-8-25/37

The Effect of Electrolytes on the Statics and Kinetics of Iodine Adsorption From Solutions by Charcoal

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Institute of Radio Engineering)

SUBMITTED: March 25, 1957

Card 3/3

KOLESOV, S.N.; VVEDENSKAYA, L.A.; KHARIN, A.N., prof., retsenzent; LOVTSOV, V.M., dots., retsenzent; LIKONTSEV, N.N., kand. tekhn. nauk, retsenzent; PUTILOVA, I.N., prof., doktor khim. nauk, red.; TROFIMOV, F.I., red.; BAKHTIYAROV, A., tekhn. red.

[Laboratory work in general chemistry] Praktikum po obshchei khimii. Tashkent, Gos.izd-vo Uzb.SSR, 1960. 141 p. (MIRA 17:4)

1. Zaveduyushchiy kafedroy khimii Taganrogskogo radiotekhnicheskogo instituta (for Kharin). 2. Zaveduyushchaya kafedroy khimii Moskovskogo elektrotekhnicheskogo instituta (for Putilova).

VERESHCHAGINA, V.I.; KHARIN, A.N.

Theory of the statics of iodine sorption on coals from aqueous solutions of halides. Izv.vys.ucheb.zav.; khim.i khim.tekh. 3 no.6:1011-1016 '60. (MIRA 14:4)

1. Taganrogskiy radiotekhnicheskiy institut, kafedra obshchey. (Iodine) (Sorption)

KATAYEVA, N.A.; KHARIN, A.N.

Effect of the solvent and of the type of carbon in the kinetics of iodine adsorption from the solution flow. Zhur.fiz.khim. 35 no.12:2794-2799 D '61. (MIRA 14:12)

1. Taganrogskiy radiotekhnicheskiy institut.
(Iodine) (Adsorption)

KHARIN, A.N.; KATAYEVA, N.A.

Mechanism of iodine transfer associated with the internal diffusion kinetics of its adsorption on charcoals from various solvents. Dokl. AN SSSR 137 no. 2:359-362 Mr '61. (MIRA 14:2)

1. Taganrogskiy radiotekhnicheskiy institut. Predstavleno akademikom M.M. Dubininym.
(Iodine) (Adsorption)

KATAYEVA, N.A.; KHARIN, A.N.

Intradiffusional kinetics of iodine adsorption from various solvents on carbons of various porosity. Zhur.fiz.khim. 36 no.5:973-980 My '62. (MIRA 15:8)

1. Taganrogskiy radiotekhnicheskiy institut.
(Iodine) (Adsorption)

ZABURDAYEVA, F.I.; KOCHEGAROV, V.M.; KHARIN, A.N.

Electrodeposition of antimony from the trifluoride electrolyte.
Zhur. fiz. khim. 38 no.3:756-760 Mr '64. (MIRA 17:7)

1. Taganrogskiy radiotekhnicheskiy institut.

KOLESOV, Svyatoslav Nikolayevich; VVEDENSKAYA, Lyudmila Andreyevna; KHARIN, A.N., prof., retsenzent; RUSTAMOV, Kh.R., prof., retsenzent; RAYTSYN, G.A., dots., retsenzent; LOVTSOV, V.M., dots., retsenzent; LIKONTSEV, N.N., dots., retsenzent; PUTILOVA, I.N., doktor khim. nauk, prof., red.; MAKUSHENKO, Ye.N., red.

[Laboratory work in general chemistry] Praktikum po obshchei khimii. Izd.2., perer. i dop. Tashkent, Sredniaia i vysshaia shkola, 1963. 186 p. (MIRA 17:12)

1. Zaveduyushchaya kefedroy khimii Moskovskogo elektrotekhnicheskogo instituta svyazi(for Putilova).

STRASHKO, B.Yu., inzh.; KHARIN, A.N., inzh.; GOLUB', T.F., inzh.

Erection of a metal, tower headframe in the Donets Basin. Shakht. stroi. 9 no.4:18-20 Ap '65. (MIRA 18 5)

1. Donetskiy Promstroyniiproyekt.

L 1323-66 EWT(m)/EWP(t)/EWP(b) JD

ACCESSION NR: AP5020929 UR/0142/65/008/003/0362/0364

66.067

AUTHOR: Katayeva, N. A.; Kharin, A. N.; Romanenko, V. V.; Kolesov, L. N. (Docent)

TITLE: Obtaining ferrite precipitates on metals by the electrophoretic method

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 3, 1965, 362-364

TOPIC TAGS: electrolytic deposition, ferrite

ABSTRACT: The use of the electrophoretic method for deposition of ferrite particles on copper wire was investigated. The zinc-nickel ferrite used (Fe_2O_3, 65.9%; NiO, 9.6%; ZnO, 24.5%), had a density of 4.67 gm/cm^3 and magnetic permeability μ_0 = 1000. It was mixed with ethyl alcohol and ball milled for 150 hr, after which a 5—10% ferrite suspension was obtained by decantation. To improve the electrolytic properties of the suspension, one drop of a 6% aqueous solution of cerium nitrate was added to the suspension. Before deposition, the copper wire was bathed in a 10% alkaline solution at 80—90C for 15 min, rinsed in distilled water, etched with HNO_3 for 10 sec, and rinsed again. Deposition was conducted for 2—10 min under a current of 2—20 mamp, depending on the surface area of the wire. Adhesion of the ferrite particles was assured by dipping the ferrite-covered wire into a 1:4 solu-

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ACCESSION NR: AP5020929

tion of MBK-1 glue in toluene and later drying it at 100C for 12 hr. The electrophoretic process increased the inductance of the copper wires to 1 μh from fractions of 1 μh. Copper coils similarly processed showed an increase of inductance of 1.5 to 1.7 times. [PW]

ASSOCIATION: none

SUBMITTED: 08Jun64 ENCL: 00 SUB CODE: EC,EM

NO REF SOV: 003 OTHER: 000 ATD PRESS: 4103

Card 2/2

KHARIN, Aleksey Petrovich; KUR'YANOVICH, I.I., red.

[Potentials of the machinery industry] Rezervy mashinostroitel'nogo proizvodstva. Orenburg, Orenburgskoe knizhnoe izd-vo, 1963. 99 p. (MIRA 17:7)

KOCHERGIN, A.I., inzhener; KHARIN, A.P., inzhener.

Methods of mass production in single-unit machine building.
Vest.mash.34 no.1:90-95 Ja '54. (MLRA 7:2)
(Machinery industry)

KHARIN, A. S.

Total lunar eclipse of January 29, 1953. Astron.tsir. no.135:21-22 F '53.
(MLRA 6:6)

1. Kafedra astronomii Tomskogo gosudarstvennogo universiteta.
(Eclipses, Lunar -1953)

KHARIN, A.S.

Lunar occultations of stars observed at the Nikolayev Branch of the Main Astronomical Observatory of the Academy of Sciences of the U.S.S.R. Astron. tsir. no.176:21 Ja '57. (MLRA 10:6)

1. Nikolayevskoye otdeleniye Gosudarstvennoy astronomicheskoy observatorii Akademii nauk SSSR.
(Occultations)

KHARIN, A.S.

Observations of the total lunar eclipse of May 13-14, 1957, at the Nikolaev Branch of the Academy of Sciences of the U.S.S.R. Astron. tsir. no.184:18-19 S '57. (MIRA 11:4)

1. Nikolayevskoye otdeleniye Glavnoy astronomicheskoy observatorii AN SSSR, Pulkovo.
(Eclipses, Lunar--1957)

KHARIN, A.S. (Kiyev)

Observations of lunar occultations of stars at the Main Astronomical Observatory of the Academy of Sciences of the Ukrainian S.S.R. in Goloseevo. Astron.tsir. no.193:31-32 Jy '58.
(MIRA 12:1)

1. Glavnaya astronomicheskaya observatoriya AN USSR, Goloseyevo.
(Occultations)

KHARIN, A.S.

Operating the photoelectric transit instrument of the time service of the Main Astronomical Observatory of the Academy of Sciences of the U.S.S.R. during 6 months of the International Geophysical Year. Izv. GAO 22 no. 1:107-122 '60. (MIRA 13:12)
(Transit instruments) (Photoelectric measurements)

KHARIN, A.S.; MOROZ, G.V.

First results of the observations of major planets with the vertical circle of the Main Astronomical Observatory. Astron. tsir. no.227:3-5 F '62. (MIRA 16:1)

1. Glavnaya astronomicheskaya observatoriya AN UkrSSR.
(Planets--Observations)

KHARIN, A.S.

Study of errors of the eyepiece micrometer screw of the vertical circle at the Main Astronomical Observatory of the Ukrainian S.S.R. Izv. Glav. astron. obser. AN USSR 5 no.1:42-46 '63. (MIRA 16:6)
(Ukraine--Astronomical observations)

KHARIN, A.S.

[Catalog of declinations of stars under programs for zenith telescopes in the F.K.4 system for the epoch of observation and equinox 1950.0] Katalog sklonenii zvezd programm zenit-teleskopov v sisteme FK 4 dlia epokhi nabliudeniia i ravno-denstviia 1950.0. Kiev, Akad. nauk URSR, 1961. 99 p. (MIRA 18:9)

L 10749-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD
ACCESSION NR: AP3001957 S/0226/63/000/003/0099/0103

AUTHOR: Ignashev, Ye. P. (Novosibirsk); Kharin, A. U. (Novosibirsk) 54

TITLE: Sintering molybdenum compacts in humidified hydrogen and rolling them into strip

SOURCE: Poroshkovaya metallurgiya, no. 3, 1963, 99-103

TOPIC TAGS: molybdenum powder, compacting, sintering, rolling, molybdenum sheets

ABSTRACT: A production technique has been developed for obtaining 1- to 3-mm thick molybdenum sheets measuring 110 x 110, 130 x 130, 180 x 180, and 180 x 360 mm. The process includes 1) the production of the molybdenum powders, 2) the compacting and sintering of the powders into billets 3 x [illegible] mm and 60 x 125 mm with thicknesses of 8–15 mm, and 3) rolling. Powders of the required particle size were produced by the two-stage reduction (with hydrogen) of molybdenum trioxide obtained by roasting ammonium molybdate in air at [illegible]°C or by sublimation of molybdenum metal scrap. Depending on the size of the green compacts, the specific compacting pressure was varied from [illegible] to 63.7

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ACCESSION NR: AP3001957

million newton/m^2; higher pressures or the use of finer powders at the pressures employed promoted lamination of the compacts. The green compacts were sintered for 1 hr at 1075—1125C and then for 2—3 hr at 1700—1750C. The sintered billets had a uniform, fine-grained structure (15-20 thousand grains/mm^2 and a density of 9.5—10.5 g/cm^3). The billets were heated to 1100—1200C in a hydrogen atmosphere and rolled (without preforging) with a 10—15% reduction per pass into sheets 1.5 to 3.5 mm thick. The hot-rolled sheets were pickled in molten potassium nitrate, surface-conditioned by grinding, and, after heating to 300—400C in air, rolled into strips 1 to 3 mm thick. No lamination, cracking, or rupture was observed during subsequent blanking and stamping. Orig. art. has: 7 tables.

ASSOCIATION: none

SUBMITTED: 04Jan62 DATE ACQ: 11Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 003 OTHER: 001

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L 12694-63 EWT(d)/EWP(k)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pf-4 JD/JG
ACCESSION NR: AP3003448 S/0129/63/000/007/0031/0031

63

AUTHORS: Ignashev, Ye. P.; Kharin, A. U.

TITLE: Intermediate annealing of molybdenum wire

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 7, 1963, 31

TOPIC TAGS: wire annealing, molybdenum wire, bright annealing

ABSTRACT: Basic characteristic of fine molybdenum wire, used for radio tube spiralling, is elongation per unit length. The mechanical properties of molybdenum wire can be improved by heat treatment. Authors established that bright recrystallization annealing of a 0.28 mm diameter wire assures a sufficiently high and uniform elongation after drawing to 100-30 microns and supplementary annealing. Article contains a figure which shows the effect of annealing temperature for two heats on the elongation per unit. In the case of heat A, the required elongation is attained only at an annealing temperature of 1450-1540C. In the case of heat B, this is not attained, if recrystallization annealing were not carried out. The

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L 12694-63
ACCESSION NR: AP3003448

annealing was done by drawing the wire through a tubular hydrogen furnace at a rate of 12-14 meters per minute. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: ML NO REF SOV: 001 OTHER: 000

Card 2/2

KHARIN, A.V., (Moscow).

For efficient use of paper. Poligr. proiz. 4:13-14 Ap '53. (MLRA 6:6)
(Printing industry)

KHARIN, B. inzh. (Leningrad)

Conference of young people. NTO no.10:57 O '59. (MIRA 13:2)
(Leningrad--Power engineering)

KHARIN, B., inzh.

Following the initiative of Yaroslavl engineers. MTO 2 no.11: 46-47 N '60. (MIRA 13:11)
(Leningrad--Electric power plants)

KHARIN, B., inzh.

The TETZ standard design. NTO 3 no.4:61 Ap '61. (MIRA 14:3)
(Electric power plants)

KUARIN, E., inzh. (Leningrad)

Creative achievements of designers. NTO 3 no.11:56 N '61.
(MIRA 14:10)
(Leningrad--Electric power plant)

KHARIN, B., inzh.

Higher than the Eiffel Tower. Na stroi. Ros. 3 no.12:29-30 D '62.
(MIRA 16:2)

(Leningrad—Towers)

DANDERS, Ya.; YATSEVICHUS, I. [Jacevicius, I.]; GOL'DENBERG, A.; KHARIN, B., inzh. (Leningrad); MOVA, N., inzh.; VINNIKOV, F. (Gomel'); MAMYKIN, I. (Gomel'); BENDERSKIY, A., starshiy inzh. (pos. Igra, Udmurtskoy ASSR); CHERTETSOV, V.; OSIPOV, I.; SIROTININ, M.I.

Exchange of news and experience. Izobr.i rats. no.4:25-26 Ap '62. (MIRA 15:4)

1. Sekretar' Respublikanskogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorv, g. Riga (for Danders). 2. Glavnyy inzh. mezhdugorodnoy telefonnoy stantsii, g. Vil'nyus (for Yatsevichus). 3. Predsedatel' oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov g. Ufa (for Gol'denberg). 4. Krayevoy sovet Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov, g. Krasnodar (for Mova). 5. Igrinskiy lespromkhoz kombinata "Udmurtles", (for Benderskiy). 6. Predsedatel' Krasnoyarskogo krayevogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov (for Sirotinin).
(Technological innovations)

KHARIN, B.D., inzh.

Equipment for boring machines. Biul. tekh. inform. po stroi. 5 no.4:30 Ap '59. (MIRA 12:8)
(Boring machinery)

KHARIN, B.D., inzh.

Using precast reinforced concrete in building thermoelectric power plants. Biul. tekh. inform. 4 no.4:7-11 Ap '58. (MIRA 11:5)
(Electric power plants) (Precast concrete construction)

KHARIN, B.D., inzh.

Construction of the scaffolds of fuel supply systems in regions with low seasonal temperatures. Elek.sta. 33 no.2:85 F '62. (MIRA 15:3)

(Electric power plants)(Fuel)

KHARIN, B.D., inzh.

New developments in the mechanization of exploration work. Energ. stroi. no.26:39-45 '61. (MIRA 15:7)

1. Leningradskoye otdeleniye Vsesoyuznogo gosudarstvennogo instituta po proyektirovaniyu teplovykh elektrostantsiy.
(Geological research--Equipment and supplies)

KHARIN, Boris Dmitriyevich; IVANOV-SKOBLIKOV, P.V., red.; ZHITNIKOVA, O.S., tekhn. red.

[Organization of the construction of thermal electric power plants]Organizatsiia stroitel'stva teplovykh elektrostantsii. Moskva, Gosenergoizdat, 1962. 242 p. (MIRA 16:2)
(Electric power plants)

CHERVYAKOVA, A.F.; PLUZHNIKOV, V.Kh.; GORELOV, Ya.P.; SHERBAUM, L.M.; KRYLOV, A.G.; SENTSOVA, Yu.Ye.; KHARIN, B.T.

Results of photographic observations of artificial satellites. Biul.sta.opt.nabl. isk.sput.Zem. no.25:23-28 '62. (MIRA 15:7)

1. Nachal'nik stantsii nablyudeniya iskusstvennykh sputnikov Zemli Instituta astrofiziki AN Turkmenskoy SSR (for Chervyakova). 2. Nachal'nik Khar'kovskoy stantsii nablyudeniya iskusstvennykh sputnikov Zemli (for Pluzhnikov). 3. Nachal'nik stantsii nablyudeniy iskusstvennykh sputnikov Zemli Gosudarstvennogo astronomicheskogo instituta im. P.K.Shternberga (for Gorelov). 4. Astronomicheskaya observatoriya Kiyevskogo universiteta (for Sherbaum). 5. Stantsiya Astronomicheskogo soveta AN SSSR (for Krylov, Sentsova). 6. Nachal'nik Tomskoy stantsii opticheskikh nablyudeniy iskusstvennykh sputnikov Zemli (for Kharin).
(Artificial satellites—Tracking)

L 9619-66 FSS-2/EWT(1)/FS(w)-3/EEC(k)-2/EWA(d)/T LJP(c) GW
ACC NR: AR5020395 UR/0313/65/000/003/0016/0016

SOURCE: Ref. zh. Issledovaniye kosmicheskogo prostranstva, Abs. 3.62.113

AUTHOR: Kharin, B.T.

TITLE: Photometric observations of the Echo II satellite

CITED SOURCE: Dokl. 3-y Sibirsk. konferentsii po matem. i mekhan., 1964. Tomsk, Tomskiy un-t, 1964, 359-360

TOPIC TAGS: satellite, satellite photography, satellite reflective characteristic, satellite tracking camera

TRANSLATION: By means of a NAFA 3c/25 camera, 40 negatives of the Echo II satellite were obtained in Tomsk between February 6 and 11, 1964, in order to observe the brightness variations of the satellite. For this purpose, selections were made of up to 20 supporting stars with known stellar values and, taking into consideration the differences in angular velocities of the satellite and the stars, corrections were introduced. The degree of the satellite's brightness did not vary during the period of observations. The author deduces that the process of filling the balloon was completed by February 1964.

SUB CODE: 22, 03 ENCL: 00

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