ZAKHAR'YEVSKIY, A.N.

L.Martin's book "Technical optics" [translated from the English]. Reviewed by A.N.Zakhar'evskii. Opt.i spektr. 10 no.3:424-425 Mr '61. (MIRA 14:8)

(Optics) (Martin, L.)

ZAKHAR'YEVSKIY, A.N.; KUZNETSOVA, A.F.

Use of interference microscopes in biology. TSitologiia 3 no.3: 245-253 My-Je '61. (MIRA 14:6)

1. Gosudarstvennyy opticheskiy institut, Leningrad.
(INTERFEROMETRY) (MICROSCOPY)

ZAKHAR'YEVSKIY, A.N.; KUZNETSOVA, A.F.

Biological interference microscopes. TSitologiia 3 no. 2:213-224 Mr-Ap '61. (MIRA 14:4)

1. Gosudarstvennyy opticheskiy institut, Leningrad.
(MICROSCOPE)

24(4) SOV/51-6-5-26/34

AUTHORS: Zakhar'yevskiy, A.N. and Fedin, L.A.

TITLE: Measurement of Double Refraction of Fibres (Izmereniye dvoynogo lucheprelomleniya volokon)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 5, pp 701-703 (USSR)

ABSTRACT: A polarization microscope suitable for measurement of double refraction in fibres is shown in Fig 1. A fibre F is placed in a suitable immersion medium between an objective Ob and a condenser K. The other parts of the microscope are: a polarizer P, an analyser A, an ocular Oc and a Wollaston prism W (placed in the image plane). For 0.01-0.02 mm thick fibres the magnification is 500 X. The system produces linear interference bands at right-angles to the fibre. A fibre displaces the bands by an amount ΔN which is related to double refraction, defined as the difference between the refractive indices of polarized rays $(n_{\parallel} - n_{\perp})$, by the following expression

$$\Delta N = \frac{a(n_{\parallel} - n_{\perp})}{\lambda}, \qquad (1)$$

where a is the thickness of the fibre and λ is the wavelength of the light used. Fig 2 shows a microphotograph taken in green light

Card 1/3

Measurement of Double Refraction of Fibres

SOV/51-6-5-26/34

(546 mμ). The five fibres shown in Fig 2 are: (1) caprone, (2) "lavsan", (3) nitron, (4) cuprammonium rayon, (5) viscose rayon. The strongest double refraction occurs in "lavsan" (fibre 2) and the weakest (it is also of the opposite sign) in cuprammonium rayon (fibre 4). In order to measure ΔN precisely it is convenient to use a screw micrometer with its hair-line in the image plane. For this purpose the scheme of Fig 1 is replaced by one of the two variants shown in Fig 3: two Wollaston prisms W_1 and W_2 are used and the micrometer hair-line is placed in the image plane Q. This idea is due to L.A. Fedin (author's certificate No. 604720/26 dated July 25, 1958). Double refraction $(n_{\parallel} - n_{\perp})$ of a uniform fibre is now calculated from

$$(n_{\parallel} - n_{\perp}) = \frac{R\lambda}{EMS}, \qquad (7)$$

where R is the area (measured microphotometrically) bounded by the curved interference band in the fibre and the original rectilinear band

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Measurement of Double Refraction of Fibres SOV/51-6-5-26/34

(c.f. Fig 4, part A), Σ is the separation between undisplaced bands, M is the magnification of the microscope and S is the cross-sectional area of the fibre. There are 4 figures and 2 references, 1 of which is German and 1 English.

SUBMITTED: December 4, 1958

Card 3/3

ZAKHAR'EVSKIY, B.

RT-1111 (Maintenance and operation of jet-propelled airplanes) Praktika tekhnicheskogo obsluzhivaniia i eksploatatsii reaktivnykh samoletov.
Vestnik Vozdushnogo Flota, (9): 45-48, 1947.

ZAKHAR'YEVSKIY, M.S.

5(2) **PHASE I BOOK EXPLOITATION** SOV/2946

Leningrad. Universitet

Voprosy khimii (Problems in Chemistry) [Lengingrad] Izd-vo Leningradskogo univ., 1959. 160 p. (Series: Its: Uchenyye zapiski, no. 272) (Series: Leningrad. Universitet. Khimicheskiy fakultet. Uchenyye zapiski. Seriya khimicheskikh nauk, vyp. 18) 1,600 copies printed.

Resp. Ed.: A. G. Morachevskiy; Ed.: Ye. V. Shchemeleva; Tech. Ed.: S. D. Vodolagina.

PURPOSE: This book is intended for chemists in research and industry as well as for teachers and students in chemical vuzes.

COVERAGE: This collection of eighteen articles on various branches of chemistry, mainly physical and analytical, was compiled on the basis of experimental research by the Chemistry Department of Leningrad University. The articles deal chiefly with methods of isolating rare earths in pure form and identifying them. No personalities are mentioned. References accompany individual articles.

TABLE OF CONTENTS:

ZAKHAR'YEVSKIY, Mstislav Sergeyevich; NIKOL'SKIY, B.P., prof., otv.red.; DOBYCHIN, D.P., kand.khim.nauk, otv.red.; SHCHEMELEVA, Ye.V., red.; ZHUKOVA, Ye.G., tekhn.red.

[Kinetics of chemical reactions] Kinetika khimicheskikh reaktsii. Leningrad, Izd-vo Leningr.univ., 1959. 165 p. (MIRA 12:12)

1. Chlen-korrespondent AN SSSR (for Nikol'skiy).
(Chemical reaction, Rate of)

5(4) SOV/54-59-3-21/21

AUTHOR: Zakhar'yevskiy, M. S.

TITLE: The State of the Theory of Heterogeneous Catalysis

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1959, Nr 3, pp 141-144 (USSR)

ABSTRACT: The present paper gives a survey on the present state of catalysis. For some time a tendency has been observed of going over from homogeneous to heterogeneous catalysis as the latter yields much purer products in contrast to homogeneous catalysis. Heterogeneous catalysis displaces also the fermentative one because of the much simpler production of the catalysis raw materials. The theory of heterogeneous catalysis, which is important for industrial purposes and production, is still somewhat contradictory. In general, it is assumed that catalysis is due to a formation of intermediate compounds of a special nature (Boreskov, Refs 1, 2). Roginskiy observed a variation of the catalytic properties by traces of gas, Kobozev observed a difference in the catalytic properties of single atoms and a monoatomic layer. Roginskiy developed the theory of oversaturation (Ref 3) and Balandin the multiplet theory (Refs 5, 6, 7, 8). The

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SOV/54-59-3-21/21

The State of the Theory of Heterogeneous Catalysis

following phenomena were observed: a reaction of the atoms of the crystal surface with gaseous molecules, a reaction of an amorphous colloidal surface layer with gaseous molecules n, a reaction of a surface solution (surface hydrides- and oxides) with gaseous molecules and finally, a reaction of single atoms adsorbed on the surface with gaseous molecules. Herefrom the existence of various regions of reaction is concluded: 1) The physical region in which a Van der Waals adsorption takes place. Only little solid bonds form. Reaction energy amounts to 1 kcal. 2) Region of chemisorption. A close surface bond forms overcoming the energy barrier. Activation energy is equal to that of ordinary chemical reactions. A frozen activated complex is formed. Multiplet theory provides explanations of the processes in this region. Excited states develop (transition states), but only in geometric and energy agreement with the reacting atoms and molecules. The value $\alpha\lambda_K + \varepsilon_0$ occurs in calculating the activation energy which depends only on the catalyst. Roginskiy's theory of oversaturation is especially taken into account. There are various concepts on the nature of the surface. (1) existence of an energe-

Card 2/3

SOV/54-59-3-21/21

The State of the Theory of Heterogeneous Catalysis

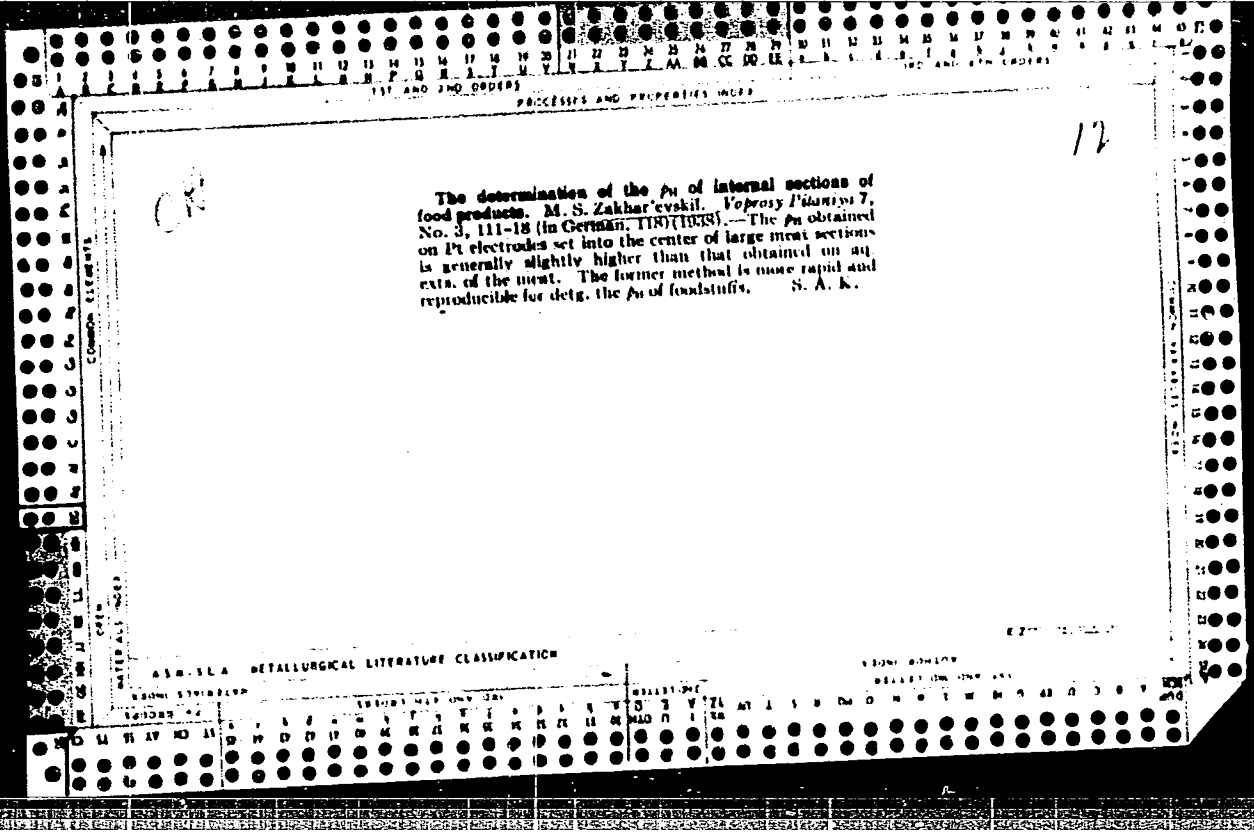
tically uniform surface (Boreskov). Phenomena of surface contamination are in contradiction with this concept.(2) existence of active centers. The third region comprises the boundary case of chemisorption. Single atoms or radicals form due to the tearing of bonds in the adsorbed bound molecule. Balandin's multiplet theory and Roginskiy's and Vol'kenshteyn's electron theory (Refs 9, 10, 11, 12) may be well applied to this region, as well as the theory developed by Semenov and Voyevodskiy as regards radical formation. The fourth mentioned region is the plateau, in which spatial phases are formed between catalyst and gaseous molecule. This field does not participate in catalysis. There are 1 figure and 21 references, 20 of which are Soviet.

SUBMITTED: May 15, 1958

Card 3/3

PAL'CHEVSKIY, V.V.; ZAKHAR'YEVSKIY, M.S.; KAL'VARSKAYA, T.M.

Methylorange absorption spectra in concentrated salt solutions.
Vest. LGU 17 no.16:125-130 '62. (MIRA 15:9)
(Methyl orange—Spectra)



1ST AND 2ND ORDERS

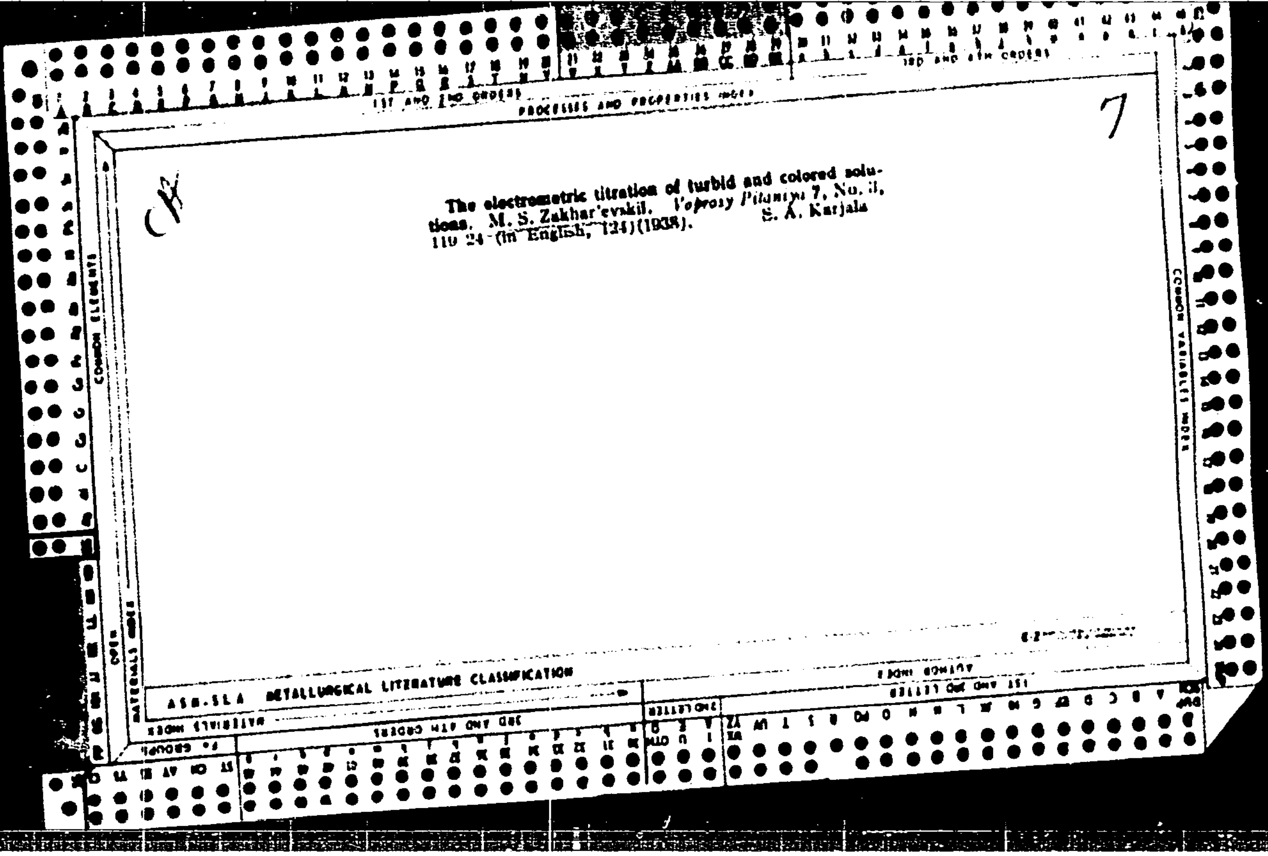
PROCESSES AND PROPERTIES INDEX

17

CR

The determination of the pH of internal sections of food products. M. S. Zakhar'evskii. *Voprosy Pitaniya* 7, No. 3, 111-18 (in German, 118)(1938).—The pH obtained on Pt electrodes set into the center of large meat sections is generally slightly higher than that obtained on aq. extn. of the meat. The former method is more rapid and reproducible for detg. the pH of foodstuffs. S. A. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



7

CA

The electrometric titration of turbid and colored solutions. M. S. Zakhar'evskii. *Voprosy Pitaniya* 7, No. 3, 119-24 (in English, 124)(1938). S. A. Karjala

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

11C

Ultrafiltration of dysentery phage. M. S. Zakhar'evskii. *Trudy II Leningrad. Med. Inst.* 1939, 109-18; *Chem. Zentr.* 1943, I, 168.—In the ultrafiltration of dysentery phage adsorption plays an important role. Membranes generally impermeable to phage become permeable after being heated in broth; this reduces adsorption. The pore size is unimportant. The size of the bacteriophage cannot be detd. accurately by ultrafiltration. The passage of the phage through the filter is limited to pores of max. size. Rachel Brown

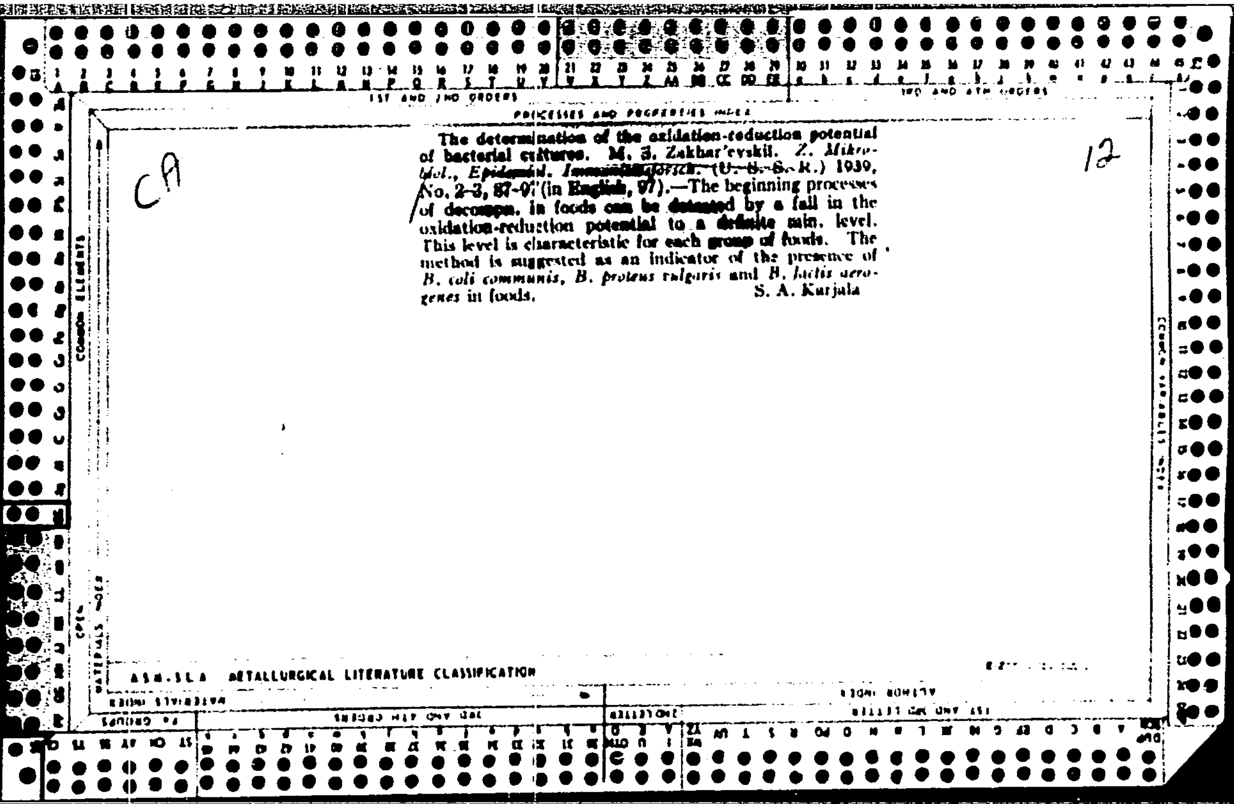
COMMON ELEMENTS

MATERIALS INDEX

OPEN

COMMON VARIABLES INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

12

The determination of the oxidation-reduction potential of bacterial cultures. M. S. Zakhar'evskii. *Z. Mikrobiol., Epidemiol. Immunitätsforsch.* (U. S. S. R.) 1939, No. 2-3, 87-97 (in English, 97).—The beginning processes of decompn. in foods can be detected by a fall in the oxidation-reduction potential to a definite min. level. This level is characteristic for each group of foods. The method is suggested as an indicator of the presence of *B. coli communis*, *B. proteus vulgaris* and *B. lactis aerogenes* in foods.
S. A. Karjala

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

Ca

11C

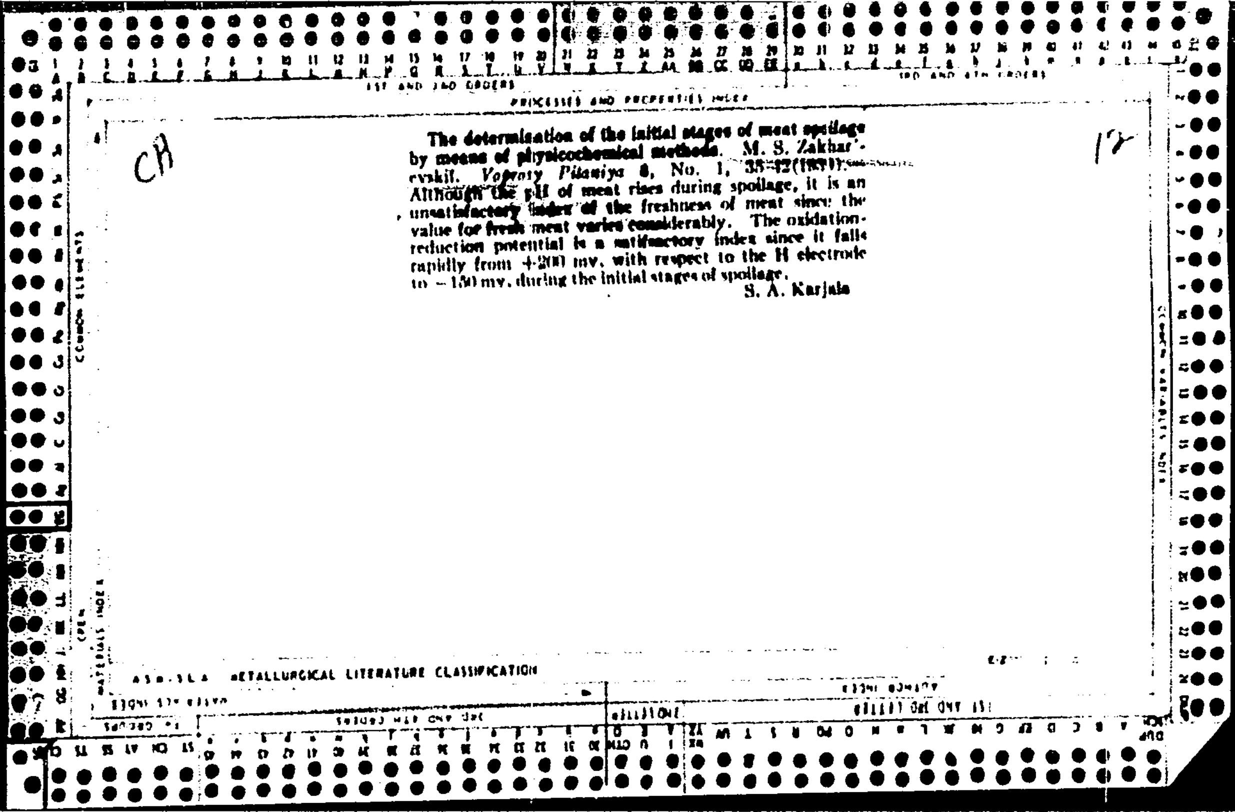
Calculation of the oxidation-reduction potential of bacterial cultures. M. S. Zakhar'evskii. *Z. Mikrobiol., Epidemiol. Immunitätsforsch.* (U. S. S. R.) 1939, No. 7-8, 188-7; *Khim. Referat. Zhur.* 1940, No. 3, 12-3; cf. *C. A.* **33**, 5017^{8}; **35**, 7489. — To compare the data of various investigators, Z. proposes to calc. the oxidation-reduction potential of bacterial cultures either in Eh or rH values instead of using the experimental Eh values, because the values of potentials detd. at various pH values are not comparable without corresponding recalcns.

W. R. Henn

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CH

12

The determination of the initial stages of meat spoilage by means of physicochemical methods. M. S. Zakhar'evskii. *Voprosy Pitaniya* 8, No. 1, 35-42(1939). Although the pH of meat rises during spoilage, it is an unsatisfactory index of the freshness of meat since the value for fresh meat varies considerably. The oxidation-reduction potential is a satisfactory index since it falls rapidly from +200 mv. with respect to the H electrode to −150 mv. during the initial stages of spoilage.

S. A. Karjala

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

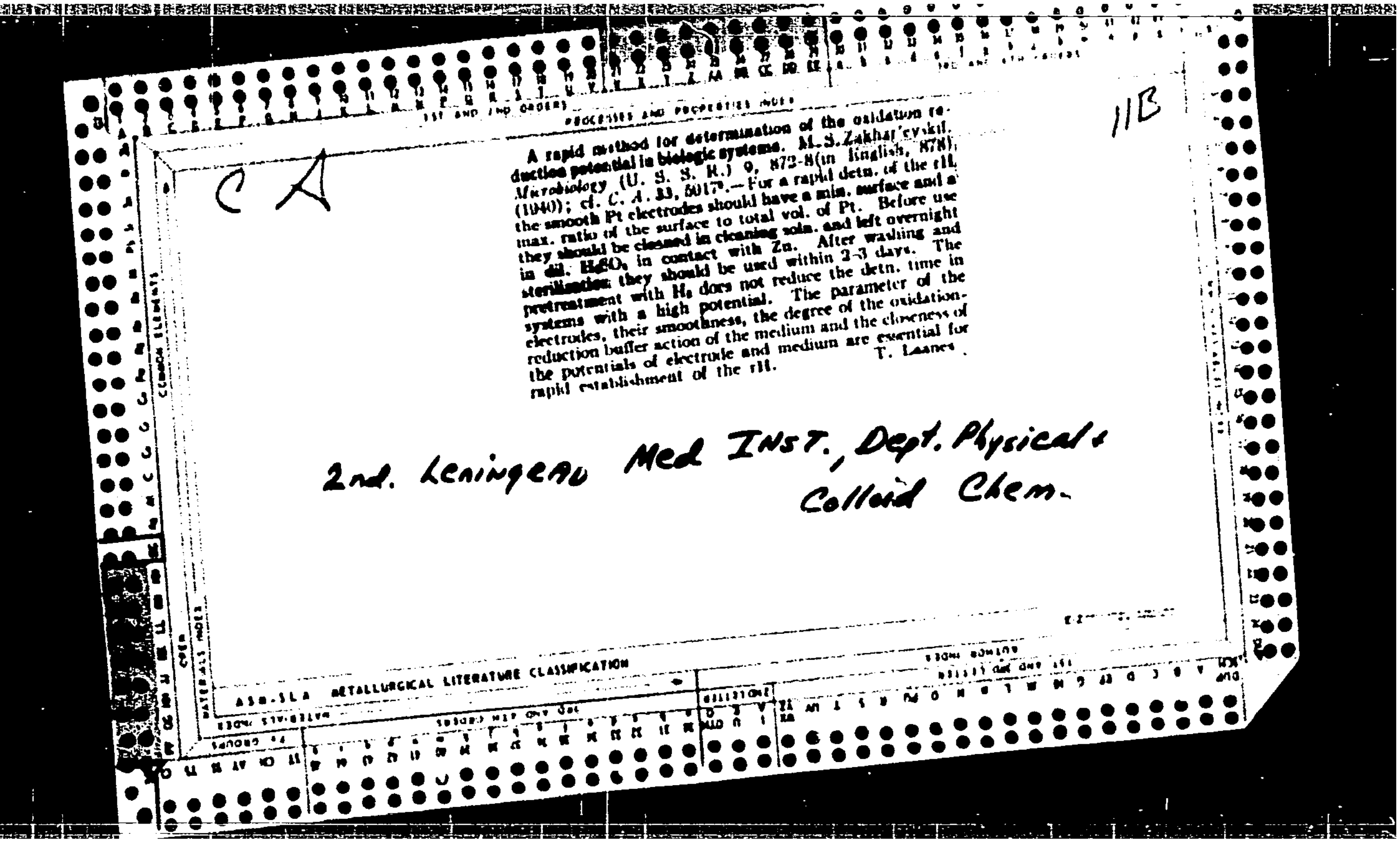
1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Metallized glass electrodes. M. S. Zakhar'evskii. *Zavodskaya Lab.* 9, 647(1940); *Chem. Zentr.* 1941, II, 2116.—To economize in the use of Pt and Au it is recommended to plate glass rods with Au. Satisfactory results are obtained with such electrodes but their elec. resistance is rather high and the electrodes are not very stable toward solns. contg. Cr. W. T. H.

4

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

11B

A rapid method for determination of the oxidation reduction potential in biologic systems. M. S. Zakhar'evskii. *Microbiology* (U. S. S. R.) 9, 872-8(in English, 878) (1940); cf. *C. A.* 33, 5017⁹.—For a rapid detn. of the rH the smooth Pt electrodes should have a min. surface and a max. ratio of the surface to total vol. of Pt. Before use they should be cleaned in cleaning soln. and left overnight in dil. H_2SO_4 in contact with Zn. After washing and sterilization they should be used within 2-3 days. The pretreatment with H_2 does not reduce the detn. time in systems with a high potential. The parameter of the electrodes, their smoothness, the degree of the oxidation-reduction buffer action of the medium and the closeness of the potentials of electrode and medium are essential for rapid establishment of the rH. T. Laanes.

2nd. Leningrad Med Inst., Dept. Physical & Colloid Chem.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

7

Determination of inorganic acids in the presence of organic acids. M. S. Zakhar'evskii. *Voprosy Pitaniya* 1941, No. 2, 20-32.—If HCl and H_2SO_4 are added to 2 *N* lactic acid or 6 *N* AcOH, the resulting pH, as detd. with a quinhydrone electrode, can be used as a measure of the inorganic acid content. The presence of more than 0.5% chloride or sulfate causes high results. The method is not very accurate but can be used qualitatively.

S. Machelson

COMMON ELEMENTS

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZAKHAR'YEVSKIY, M.S.

✓ Study of the melts of potassium and silver nitrates by the method of the electromotive force. M. S. Zakhar'evskii and T. V. Permyakova (State Univ., Leningrad). *Zhur. Obshchei Khim.* 26, 2047-52(1956).—The KNO_3-$AgNO_3$ system was studied by measuring the e.m.f. At temps. below 150° a chem. reaction takes place between the components, but above 150° the system behaves ideally.

J. Rovtar Leach

ZAKHAR'YEVSKIY, M.S.

ZAKHAR'YEVSKAYA, I.D.; LENTOVSKAYA, V.A.; ZAKHAR'YEVSKIY, M.S.

Prospects for automatic control of vat-dyeing processes. Tekst. prom. 17 no.6:37-38 Je '57. (MLRA 10:7)
(Dyes and dyeing) (Automatic control)

ZAKHAR'YEVSKIY, M.S

4
2-may

Oxidation-reduction potentials of solutions of methylene blue. B. P. Nikol'skii, M. S. Zakhar'evskii, and V. V. Pal'chevskii. *Uchenye Zapiski Leningrad. Gosudarst. Univ. im. A. A. Zhdanova* No. 211, *Ser. Khim. Nauk* No. 15, 26-39 (1957).—A method superior to that of Clark was worked out for detg. the consts. of dissocn. for oxidation reduction indicators by means of galvanic elements without transference. Methylene blue (I) was purified by quintuple recrystn. from dil. aq. HCl, then twice from H_2O, and dried over H_2SO_4. Leuco-I was prepd. from I by reduction with H_2 and Pt. The cell Pt | I 2.656 × $10^{-4}M$/leuco I 2.656 × $10^{-4}M$ | H electrode was used in place of the calomel electrode with uncertain diffusion potential as used by Clark (*C.A.* 17, 2007; 22, 999). The pH of the system was detd. by means of the H electrode and a third, satd. calomel, half-cell, with a satd. KCl bridge. The oxidation-reduction potential of the I system, φ, at 20°, was detd. relative to both the H and the calomel electrodes as a function of the pH. Simultaneously the ratio I:leuco I was detd. spectrophotometrically from the intensity of absorption at 610.0 mμ rather than at the absorption max. 667.5 mμ. The function φ *vs.* pH shows breaks at pH 5 and 6, corresponding to K_1 and K_2, resp.; φ_0 is practically independent of ionic strength μ over the range 0.02-0.40. The 1:1 oxidation-reduction element shows a min. for $E = \varphi^0 - (3/2)$pH at about pH 5.2. Theoretical calcns. for φ = e.m.f. for various values of pH for an oxidation-reduction electrode-H electrode cell, as based on the assumption of 2 different dissocn. consts., rather than one only, for the leuco-form of I, yield values that agree well with the exptl. curves: Leuco-I = $RH_3^{++} \rightarrow RH_2^{+}(K_1) \rightarrow RH(K_2)$; for which $(a_{H^+})^2_{min} = K_1K_2$, $E_{min} = \varphi_0 + (\vartheta/2)\log(K_1 + 2\sqrt{K_1K_2})$; $K_1 = 0.87 \times 10^{-6}$, $K_2 = 1.36 \times 10^{-8}$, $\varphi_0 = 541.0$ mv., at 20°. These results agree satisfactorily with those obtained by Clark at 30°, 3 × 10^{-6}, and 1.4 × 10^{-8}.

F. H. Rathmann

Distr: 4E4j

ZAKHAR'YEVSKIY, M.S

ZAKHAR'YEVSKAYA, I.D.; LENTOVSKAYA, V.A.; ZAKHAR'YEVSKIY, M.S.

Measuring the end-point oxidation-reduction potential of vat-dye solutions. Tekst.prom. 18 no.5:71-72 My '58. (MIRA 11:5)
(Dyes and dyeing) (Oxidation-reduction reaction)

ZAKHAR'YEVSKIY, Mstislav Sergeyevich; NIKOL'SKIY, B.P., otv. red.;
DOBYCHIN, D.P., kand. khim. nauk, otv. red.; PIASTRO, V.D.,
red.; ZHUKOVA, Ye.G., tekhn. red.

[Kinetics and catalysis] Kinetika i kataliz. Leningrad, Izd-vo Leningr. univ. 1963. 313 p. (MIRA 16:7)

1. Chlen-korrespondent AN SSSR (for Nikol'skiy).
(Chemical reaction, Rate of) (Catalysis)

ACCESSION NR: AP4041837 S/0054/64/000/002/0084/0089

AUTHOR: Batyayev, I. M.; Zakhar'yevskiy, M. S.

TITLE: Investigation of the oxidation potential in the cerous-ceric-nitric acid-water-tributylphosphate system

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1964, 84-89

TOPIC TAGS: oxidation potential, cerous ceric oxidation potential, cerium nitrate complex, electrometric determination, electromotive force determination

ABSTRACT: The normal oxidation potential of cerium (trivalent to tetravalent) in a nitric acid-water-tributylphosphate (TBP) medium was determined. Two series of runs were made using N_{H_2O}/N_{TBP} = 1/1.11 and 1/1.81. TBP is saturated with water at 1/1.04; a lower water content cannot be used because the concentrated HNO_3 in the system decomposes to form lower nitrogen oxides which would reduce the Ce IV. The apparatus shown in fig. 1. was used to measure the e.m.f. of the elements: (Pt) H_2 / HCl; H_2O; TBP | HNO_3; H_2O; TBP; Ce IV; Ce III / Pt and glass electrode / HNO_3; H_2O; TBP, Ce IV; Ce III / Pt.

Card 1/3

ACCESSION NR: AP4041837

Values of 1.37 and 1.35 v. were obtained; the lower oxidation potential was obtained for the sample with the lower water content in the TBP. This was explained as due to the stronger complexing of the Ce IV with the nitrate ion. Orig. art. has: 14 equations, 3 tables and 1 figure.

ASSOCIATION: None

SUBMITTED: 00Feb64 ENCL: 01

SUB CODE: IC, OC NR REF SOV: 003 OTHER: 006

Card 2/3

ACCESSION NR: AP4041837 ENCL: 01

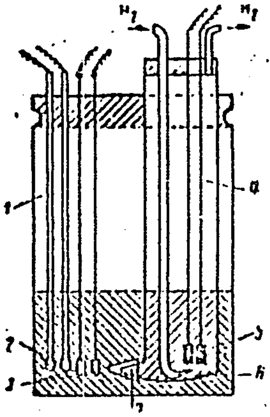


Figure 1

Cell for the electrometric determinations: 1--container; 2--two glass electrodes; 3--two polished platinum electrodes; 4--container for hydrogen polyelement (HCl-H_2O-TBP; HNO_3-H_2O- TBP); 5--two platinum hydrogen electrodes; 6--tube for hydrogen feed; 7--connecting tube with capillary and polished cap.

Card: 3/3

L 5726-65 EPA(s)-2/EWT(m)/T/EWP(q)/EWP(b) Pt-10 AFWL/ASD(a)-5/ESD(t)/RAEM(t)
JG/JD/RWH
69 6b S/0032/64/030/010/1196/1198
ACCESSION NR: AP4046466

AUTHORS: Zakhar'yevskiy, M. S.; L'vova, T. I.; Kuznetsova, I. N.; Kryzhanovskiy, B. P.

TITLE: The behavior of film semiconductor SnO_2 electrodes in reducing oxidizing surroundings

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1196-1198

TOPIC TAGS: oxidation, reduction, semiconductor, stannous oxide, film semiconductor, electrode, quinhydrone

ABSTRACT: The authors studied the dependence of the potential of various specimens of film semiconductor SnO2 electrodes on the concentration ratio of the oxidation and reduction form in the reversible oxidation-reduction system Fe^{3+} -- Fe^{2+}, $[Fe(CN)_6]^{3-}$-$[Fe(CN)_6]^{4-}$ and quinhydrone in buffer solution. Solutions containing Fe^{3+} - Fe^{2+} were prepared by mixing iron sulfate and ferrous ammonium sulfate (Mohr's salt) in 0.1-n H_2SO_4, thus yielding an Fe^{3+} and Fe^{2+} concentration of 0.004 moles/liter. The solution containing ferri-ferrocyanide radicals was prepared by

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L 6726-65

ACCESSION NR: AP4046466

3

mixing exact measures of potassium ferricyanide and potassium ferrocyanide in a
standard buffer solution of pH=4.00, 6.88, and 9.18. An absolute potassium ferri-
and ferrocyanide concentration of 0.0017 moles/liter was obtained. Quinhydrone was
[illegible] by several rinsings with the same buffer solutions. Results
[illegible] of galvanic elements I and II
were plotted to show the dependence of the potential
[illegible] the logarithm of relative radical concentrations in the ambient solutions, and
[illegible] buffer solution pH for the quinhydrone case. A third plot shows the potential
curve for the SnO_2 electrode for titration of bivalent iron by potassium bichromate.
Orig. art. has: 3 figures and 1 formula.

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet im. A. A Zhdanova (Leningrad State University)

ENCL: 00

SUBMITTED: 00

NO REF SOV: 006

OTHER: 002

SUB CODE: EE, GC

Card 2/2

BOBROV, V.S.; LUTUGINA, N.V.; MOLODENKO, P.Ya.; ZAKHAR'YEVSKIY, M.S.; STEFANOVA, O.K.; BELYUSTIN, A.A.; MATEROVA, Ye.A.; NIKOL'SKIY, B.P., otv. red.; POZDYSHEVA, V.A., red.

[Theoretical and practical guide to laboratory work in physical chemistry] Teoreticheskoe i prakticheskoe rukovodstvo k laboratornym rabotam po fizicheskoi khimii. [Leningrad] Izd-vo Leningr. univ. Pt.1. 1965. 197 p. (MIRA 18:12)

1. Leningrad. Universitet. 2. Chlen-korrespondent AN SSSR (for Nikol'skiy).

PENDIN, A.A.; ZAKHAR'YEVSKIY, M.S. [deceased]; KUZNETSOVA, I.N.

Conductance of solutions of a mixture of the two 1,1-electrolytes with the identical ion. Vest.LGU 20 no.22:115-121 '65. (MIRA 18:12)

L 31804-66 EWT(m)/EWP(j) WW/JW/RM

ACC NR: AP6021668 SOURCE CODE: UR/0079/66/036/003/0397/0401

AUTHOR: Pendin, A. A.; Zakhar'yevskiy, M. S. (Deceased); Leont'yevskaya, P. K. 76 B

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Chemical heat and entropy of hydration of the ferricinium cation

SOURCE: Zhurnal obshchey khimii, v. 36, no. 3, 1966, 397-401

TOPIC TAGS: entropy, hydration, cation, heat of reaction, isobaric potential, electromotive force, ion concentration, intermolecular complex

ABSTRACT: The change in the isobaric potential, the heat of reaction, and the entropy of reaction were determined by a potentiometric method at 25°C for the reaction $\frac{1}{2}H_2 + Fe(C_5H_5)_2^+ \rightleftarrows Fe(C_5H_5)_2 + H^+$ in aqueous solution. The standard entropy and chemical heat of hydration of the ferricinium cation in aqueous solution at 25°C were calculated from these values. The absence of any appreciable complex formation of the ferricinium cation with the chloride ion at 25°C within the interval of chloride ion concentrations from 0 to 0.1 M was demonstrated in an investigation of the electromotive force of the galvanic cell compiled from an electrode reversible with respect to the ferricinium cation and a glass electrode, as a function of the variable KCl concentration. Orig. art. has: 1 figure, 1 formula and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 22Mar65 / ORIG REF: 005 / OTH REF: 003

LS
Card 1/1 UDC: 536.6+536.75:542.934

PENDIN, A.A.; ZAKHAR'YEVSKIY, M.S.

Determination of the conductance of the solvent in the case of an electrolyte with a common ion. Elektrokhimiia 1 no.6:751-754 Je '65. (MIRA 18:7)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

ZAKHAR'YEVSKIY, M.S.; PETROVSKAYA, I.A.

Coulometric determination of the oxygen present on indifferent electrodes. Vest. LGU 19 no.22:157-159 '64 (MIRA 18:1)

ZAKHAR'YEVSKIY, M.S.; L'VOVA, T.I.; KUZNETSOVA, I.N.; KRYZHANOVSKIY, B.P.

Behavior of SnO_2 semiconductor film electrodes in redox media.
Zav. lab. 30 no.10:1196-1198 '64. (MIRA 18:4)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

NIKOL'SKIY, B.P.; PENDIN, A.A.; ZAKHAR'YEVSKIY, M.S.

Electrode reversible toward a ferricinium cation. Dokl. AN SSSR 160 no.5:1131-1132 F '65. (MIRA 18:2)

1. Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova.
2. Chlen-korrespondent AN SSSR (for Nikol'skiy).

ZAKHAR'YEVSKIY, M.S.; PAL'CHEVSKIY, V.V.

Redox potential measurement as a method of investigation of complex formation in solutions. Vest. LGU 19 no.22:121-126 '64 (MIRA 18:1)

L 20229-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM S/0075/64/019/011/1407/1408
ACCESSION NR: AP4049099

AUTHOR: Nikol'skiy, B.P., Zakhar'yevskiy, M.S., Pendin, A.A.

B

TITLE: Determination of ferrocene

7

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 11, 1964, 1407-1408

TOPIC TAGS: ferrocene determination, ferriferro system, Nernst equation, ferricinium cation, redoximetric analysis

ABSTRACT: A redoximetric method for the quantitative determination of ferrocene in acetic acid solution is described. The oxidative potential of the ferriferro system in 2 N HCl, at an overall concentration of the iron salt of 10^{-3} M, strictly obeys the Nernst equation and does not depend, within 1 mv limits, on additions of the other reagents up to 6-8%. This property of the ferri-ferro system permits a quantitative determination of ferrocene in acetic acid solution in the presence of the ferricinium cation, as well as analysis of the purity of the ferrocene preparation. A solution with a known concentration of $FeCl_3$ in 2 N HCl is added to the ferrocene solution in acetic acid. The precipitating ferrocene redissolves during oxidation by the iron salt. The oxidation potential is determined relative to a saturated calomel electrode. The error was 0.6%, although it could reach 1-2% for less careful determinations. Orig. art. has: 1 table and 2 formulas.

Card 1/2

L 20229-65
ACCESSION NR: AP4049099

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet im. A.A. Zhdanova (Leningrad State University)

SUBMITTED: 27Jan64 ENCL: 00 SUB CODE: OC

NO REF SOV: 002 OTHER: 002

Card 2/2

BATYAYEV, I. M.; ZAKHAR'YEVSKIY, M. S.

Oxidation potential in the system ceric-cerous-nitric acid-water-tributyl phosphate. Vest. LGU 19 no.10:84-89 '64. (MIRA 17:7)

ZAKHAR'YEVSKIY, M.S.; GATILOVA, Ye.G.; MAKHORTYKH, S.V.

Conductance of sodium acetate and ferrous acetates in aqueous acetic acid solutions. Vest. LGU 18 no.22:105-113 '63.

Conductance method of studying the complex formation of ferric acetate in aqueous acetic acid solutions. Ibid.:114-119 (MIRA 17:1)

PAL'CHEVSKIY, V.V.; ZAKHAR'YEVSKIY, M.S.; KAL'VARSKAYA, T.M.

Dissociation constant of methyl orange. Vest. LGU 18 no.10:
96-100 '63. (MIRA 16:8)
(Methyl orange) (Dissociation)

ZAKHAR'YEVSKIY, M. S.

Chair of Physical and Colloidal Chem.

"To the Methods of Determination of the Oxidoreduction Potential of the Bacterial Cultures."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 4-5, 1944.

PROCESSES AND PROPERTIES INDEX

CA

1

A portable apparatus for measuring pH. M. N. Zakhar'evskii. *Zavodskaya Lab.* 12, 507-8(1946).—The construction of the pH meter is based on that of the cathode voltmeter. The galvanometer has 100 scale divisions, each corresponding to 1.5 v. Owing to the complete absence of current in the circuit of the element, it is possible to det. the pH value in weakly buffered solns. A low-potential Pb-Cd standard element ($HgCd_{10}\%/CdCl_2 \cdot 2H_2O/PbCl_2/HgPb_6\%$, e.m.f. 0.14186 at 20°) is used in the app. The detns. are accurate to within pH 0.013. The quinhydrone electrode is used, with acetate (pH 4.02) and phosphate (pH 7.00) buffer solns. for comparison electrodes. With acetate buffer soln. the pH of the liquid can be detd. from 2.04 to 7.02 and with phosphate buffer from 4.4 to 9.6. The pH value is calcd. from $pH = pH_0 \pm 1.5n/\alpha$ (at 20°) (pH_0 is the pH value of the buffer soln., n the galvanometer readings, α the temp. coeff.). W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZAKHAR'YEVSKIY, M. S.

"The Dynamics of Redox Potential in the process of Penicillin Bacteriostasis"

SOURCE: Journal of the Institute of Experimental Medicine (ZhMEI), No 11, 1948

ZAKHAR'YEVSKIY, M. S.

"Determination of the Oxidation-Reducation Potential [Redox Potential] of Biological Systems", Biologicheskiye Antiseptiki, 1950, pp 65-72

Trans

M-74, 18 Jan 55

CA

11C

Variation of the oxidation-reduction potential of a culture of Staphylococcus aureus during phagolysis. M. N. Zakhar'evskii. *Trudy Leningrad. Sanit. Gigien. Med. Inst.* 5, 73-7(1950).—The oxidation-reduction potential of *S. aureus* treated with bacteriophage does not differ from the control. With a strong reducing culture, such as *Proteus vulgaris*, the curve of the potential is almost a mirror image of the growth curve. Upon death of the organisms the potential rises rapidly. G. M. Kosolapoff

ZAKHAR'YEVSKIY, M. S.

Category: USSR / Physical Chemistry - Kinetics. Combustion.
Explosives. Topochemistry. Catalysis.

B-9

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30020

Author : Zakhar'yevskiy M. S., Vasilenko K. M.
Inst : not given
Title : Concerning the Mechanism of the Reaction of Saccharose Hydrolysis

Orig Pub: Zh. obshch. khimii, 1956, 26, No 8, 2304-2311

Abstract: Reaction velocity of hydrolysis of saccharose (I) was determined polarimetrically in aqueous and aqueous-alcoholic solutions, at different concentrations of HCl, alcohol and I, and at 25°. Due to mutarotation of glucose and fructose the final angle of rotation α changes with time and passes thru a minimum. For a given concentration of I the minimum value of α was taken. From data found in the literature and those secured by the authors, an empirical equation has been derived for the experimental velocity constant of the reaction $K(\text{min}^{-1})$, in aquecus solution: $K(H_2O)/(HCl) = 0.182 \cdot 10^{0.200}$ (HCl). A scheme of the reaction is proposed:

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ZAKHAR'YEVSKIY, M.S.; LI SUN-GI

Measuring the diffusion coefficient in strontium chloride solutions by means of tagged atoms. Vest. LGU 17 no.16:131-134 '62. (MIRA 15:9)
(Diffusion) (Strontium chloride) (Radioactive tracers)

ZAKHAR'YEVSKIY, M.S.

Oxidation potentials and some fields of their application. Vest LGU 16 no.22:73-77 '61. (MIRA 14:11)

(Oxidation-reduction reaction)

ZAKHAR'YEVSKIY, M.S.; RABINOVICH, V.A.

Thin-layer electrodes. Zav.lab. 27 no.9:1158-1159 '61. (MIRA 14:9)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.

(Electrodes, Platinum)

ZAKHAR'YEVSKIY~~, M.S.~~; MUSOROK, Ye.G.; YAKUBOV, Kh.M.

Analysis of the vat dyeing process in laboratories. (MIRA 13:11)
Tekst.prom 20 no.10:43-45 0'60.
(Dyes and dyeing)

PAL'CHEVSKIY, V.V.; ZAKHAR'YEVSKIY, M.S.; MALININA, Ye.A.

Thermodynamic characterizarion of the processes of protolytic dissociation of benzoic and p-hydrozybenzoic acid. Vest. LGU 15 no.16:95-101 '60. (MIRA 13:8)

(Benzoic acid) (Hydrogen ion concentration)

ZAKHAR'YEVSKIY, M.S.

Application of the method of oxidation potentials to the study of the interactions of substances in solutions [with summary in English]. Vest. LGU 15 no.22:77-81 '60. (MIRA 13:11)
(Oxidation-Reduction reaction) (Complex ions)

S/054/60/000/004/008/015
B004/B056

AUTHOR: Zakhar'yevskiy, M. S.

TITLE: Application of the Method of Oxidation Potentials for the Purpose of Studying the Interaction of Substances in Solutions

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1960, No. 4, pp. 77-81

TEXT: This is a review of publications on protolytic equilibria in redox systems. The author proceeds from the dissociation constants in redox systems as determined by Professor B. P. Nikol'skiy (Refs. 1-4). This method makes use of the electrolytic cell Pt | redox system | glass electrode. The relation between the oxidation potential E and pH is expressed by $E = \varphi + \vartheta \mathrm{pH}$. φ denotes the voltage referred to the hydrogen electrode; $\vartheta = 2.303RT/F$. By the example of toluidine blue, the following relations are derived for the dissociation constants: $\mathrm{pH}_{\mathrm{min}} = (\mathrm{p}K_1 + \mathrm{p}K_2)/2$; $E_{\mathrm{min}} = E_0 + (\vartheta/2)\log(K_1 + 2\sqrt{K_1K_2})$; $E = E_0 + (\vartheta/2)\log K_1K_2 - (\vartheta/2)\log K_3$.

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Application of the Method of Oxidation Potentials for the Purpose of Studying the Interaction of Substances in Solutions

S/054/60/000/004/008/015
B004/B056

The application of this method by various research scientists when investigating acetate complexes in the system $Fe^{3+} - Fe^{2+}$ (V. V. Pal'chevskiy, R. G. Gorbunova, Ref. 16) and work carried out by the author at the kafedra fizicheskoy khimii Leningradskogo gosudarstvennogo universiteta (Chair of Physical Chemistry of Leningrad State University) for the purpose of studying redox potentials of dyes are mentioned. There are 2 figures and 20 references: 17 Soviet and 3 US.

Card 2/2

A Method Used to Study the Kinetics of Heterogeneous Catalytic Reactions

S/054/60/000/01/009/022
B004/B117

$\ln\gamma, \tau$; $\ln\gamma, \ln\tau$. The shape of the respective kinetic equation is characterized by a linear dependence in the initial part of the curve of one of the diagrams. Then, the order of reaction for each reactant, the rate constant, and the activation energy are calculated. In addition, the author investigates as examples the reactions $\nu_1A + \nu_2B \rightleftarrows \nu_3C + \nu_4D$; $\nu_1A + \nu_2B \longrightarrow \nu_3C$, $\nu_1A \longrightarrow \nu_3C + \nu_4D$, and derives the corresponding kinetic equations. Figures 1 to 3 show the course of the γ,τ-diagram for various reaction orders. Fig 4 illustrates the determination of the reaction order from $\tan\alpha$ of the straight line in the coordinates $\ln\gamma$, $\ln\tau$. There are 4 figures, 1 table, and 5 Soviet references.

Card 2/2

ZAKHAR'YEVSKIY, M.S.; VASILENKO, K.M.

Applicability of thin film electrodes for the study of oxidation-reduction systems. Uch.zap.LGU no.272:48-56 '59.
(MIRA 13:1)
(Oxidation-reduction reaction) (Glass electrode)

ZAKHAR'YEVSKIY, M.S.; KROTIKOV, V.A.

Study of sodium and potassium nitrate melts by the method of electromotive forces. Uch.zap.LGU no.272:57-63 '59.

(MIRA 13:1)

(Sodium nitrate) (Potassium nitrate)
(Electromotive force)

ZAKHAR'YEVSKIY, M.S.

Method of studying the kinetics of heterogeneous catalytic reactions. Vest. LGU 15 no.4:66-71 '60. (MIRA 13:2)
(Chemical reaction, Rate of) (Catalysis)

ZAKHAR'YEVSKIY, M.S.

State of the theory of heterogeneous catalysis. Vest.LGU 14 no16: 141-144 '59. (MIRA 12:10)
(Catalysis)

ZAKHAR'YEVSKIY, M.S.; MUSOROK, Ye.G.; YAKUBOV, Kh.M.; LENTOVSKAYA, V.A.

Oxidation potential in vat dye solutions. Vest.LGU 14 no.4:
94-97 '59. (MIRA 12:5)
(Dyes and dyeing) (Oxidation, Electrolytic)

ZAKHARYEVSKIY, M. S

CHINA/Physical Chemistry. Kinetics. Combustion. Explosions. Topochemistry. Catalysis. B

Abs Jour: Ref Zhur-Khim., No 5, 1958, 14698.

Author : Zakharievskiy M.C., Mang-Cheng.
Inst :
Title : The Kinetics of SO_4 Oxidation on a Vanadium Catalyzer Promoted by Na and K Salts.

Orig Pub: Tung-pei jen-min ta-hsueh tse-jen k'e-hsueh hsueh-pao, acta scient. natur., 1958, No 1, 117-129.

Abstract: The kinetics of SO_4 oxidation have been examined on catalyzers, composed of $1.5\ K_2O \cdot 1.5\ Na_2O \cdot V_2O_5$ and $3N_2O \cdot V_2O_5$. The kinetic equations of the oxidizing reaction of SO_4 in the temperature range of 390°-550° for the above catalyzers, as well as the activation energy E (kilocaloric per mole), have been determined.

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24(6) PHASE I BOOK EXPLOITATION SOV/3442

Zakhar'yevskiy, Mstislav Sergeyevich

Kinetika khimicheskikh reaktsiy (Kinetics of Chemical Reactions) [Leningrad] Izd-vo Leningr. univ., 1959. 165 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova. Redaktsionno-izdatel'skiy sovet.

Resp. Eds.: B. P. Nikol'skiy, USSR Academy of Sciences, Corresponding Member, and Dobychin, Candidate of Chemical Sciences; Ed.: Ye. V. Shchemeleva; Tech. Ed.: Ye. G. Zhukova.

PURPOSE: This textbook is intended for students of chemical departments of universities and chemical schools of higher learning.

COVERAGE: The textbook deals with problems of chemical kinetics and various chemical reactions taking place in liquid and gaseous phases. Basic principles of kinetics and of kinetic theory are explained and the effect of temperature on the velocity of a reaction analyzed. The theory of collisions and its application to reactions in solutions is discussed along with the theory of ionic exchange and elec-

Card 1/5

trolytic effects. Heterogeneous processes and kinetics of processes taking place under conditions of steady and unsteady state of diffusion current are reviewed along with branched and unbranched chain reactions. The theory of transient state, absolute velocity of reactions and thermodynamic principles are also explained. The appendix contains equations relating to consecutive reactions, molecular collisions, oscillation of molecules, and collisions of particles in a solution. The author thanks professors A. V. Storonkin, B. P. Nikol'skiy, D. P. Dobychin, R. L. Myuller, M. Ye. Pozin, S. A. Ariya and K. M. Vasilenko for their assistance.

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Ch. I. Formal Kinetics

Ch. II. Theory of Collisions

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Ch. IV. Reactions in Solutions

Ch. V. Heterogeneous Reactions

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Kinetics of Chemical Reactions

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Ch. VI. Chain Reactions

Ch. VII. Theory of Transient State

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Kinetics of Chemical Reactions SOV/3442

AVAILABLE: Library of Congres

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4-26-60

5(4) SOV/54-59-1-12/25

AUTHORS: Zakhar'yevskiy, M. S., Musorok, Ye. G., Yakubov, Kh. M., Lentovskaya, V. A.

TITLE: Oxidation Potential in Solutions of Indigo Dyes (Okislitel'nyy potentsial v rastvorakh kubovykh krasiteley)

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1959, Nr 1, pp 94-97 (USSR)

ABSTRACT: The oxidation potential in a redox system may be determined by the following equation: $\varphi = \varphi_0 + \frac{RT}{nF} \ln \frac{a_{Ox}}{a_{Red}} + \alpha \ln a_{H^+}$ (2). This equation reflects the dependence of the oxidation potential φ (φ_0 = regular oxidation potential) on the activity of the oxidation form (a_{Ox}), and the reduction form (a_{Red}). F = Faraday number and α a coefficient, which takes multiples of the value 1/2.(RT/F) in dependence on the proteolytic equilibrium in the system. On assuming the activity coefficient to be equal to one and with a constant pH, in addition to introducing into equation (2) the numerically computed coefficients, the expressions for

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the oxidation potentials assume the following form:

$$\varphi = \varphi_0 + 0.0001\ T\ \lg \frac{C_{Ox}}{C_{Red}} \quad (3); \quad \varphi = \varphi_0 + 0.0001\ T\ \lg \frac{A}{C_{Red}} \quad (4).$$

Equation (3) holds for the case of a variable activity of the oxidation form and equation (4) holds for a constant activity. The present paper deals with the investigation of the applicability of equations (3) and (4) upon indigo dye solutions. In this connection, the authors investigated the dependence of the oxidation potential on the ratio of the oxidation- and reduction form concentrations in the indigo dye solutions: indigo red "kkh", indigo gold-yellow "zhkh", indigo light green "zh", and indigo blue "o". In the indigo dye solutions, in which the oxidation form is colloidal, a linear dependence of the oxidation potential on $\lg \frac{C_{Ox}}{C_{Red}}$ was found; the inclination angle of the straight lines obtained, however, is somewhat smaller than the one obtained by theoretical calculation. There are 2 figures and 12 references, 3 of which are Soviet.

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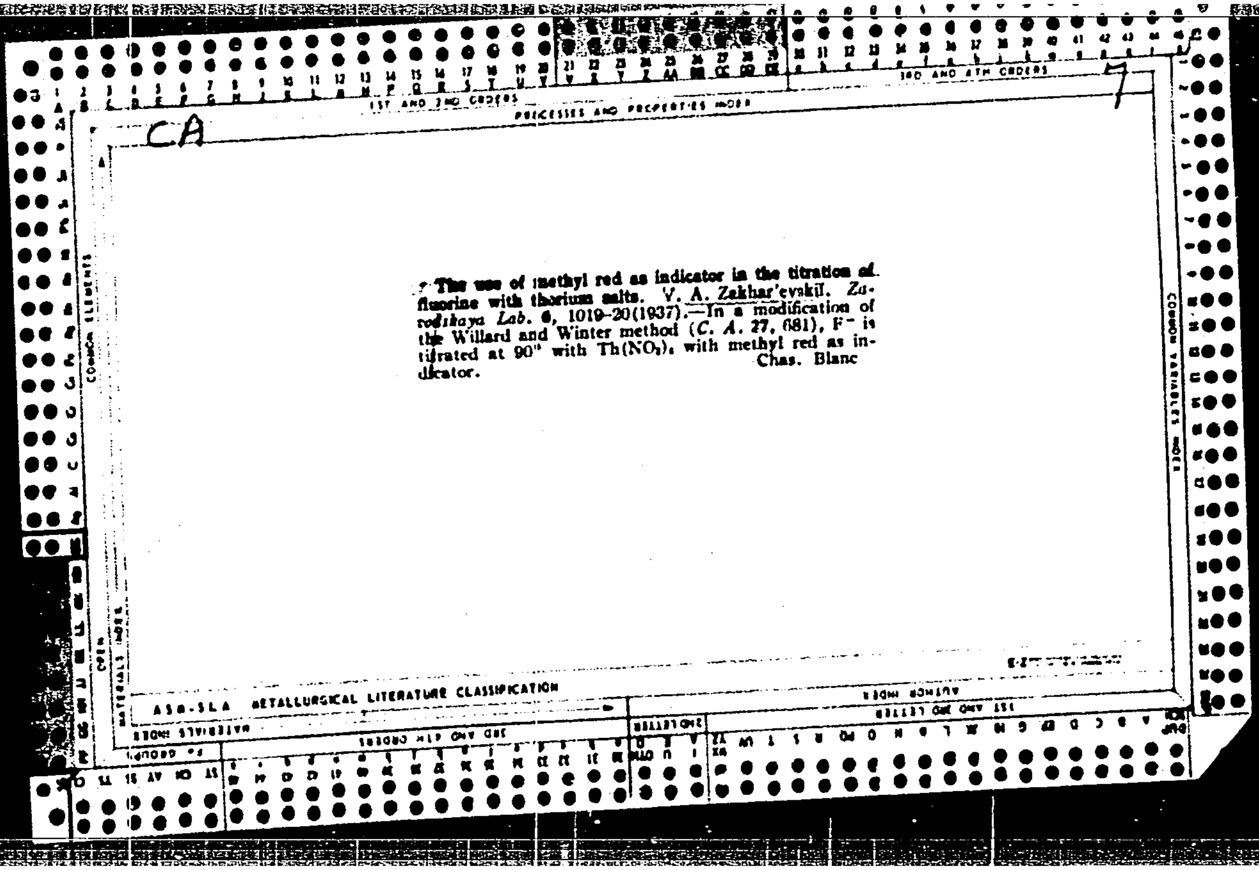
C-A

1

PROCESSES AND PROPERTIES INDEX

Simple potentiometric apparatus with a glass electrode. V. A. Zakhar'evskii. *Zavodskaya Lab.* 6, [illegible]-4(1937).—A modified Robertson method (*C. A.* 25, 1063) for prepg. a low-resistance glass electrode and manner of using it in detg. pH values of solns. contg. active oxidisers and reducers are described in detail. Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



The use of methyl red as indicator in the titration of fluorine with thorium salts. V. A. Zakhar'evskii. *Zavodskaya Lab.* **6**, 1019-20(1937).—In a modification of the Willard and Winter method (*C. A.* **27**, 681), F^- is titrated at 90° with $Th(NO_3)_4$ with methyl red as indicator. Chas. Blanc

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

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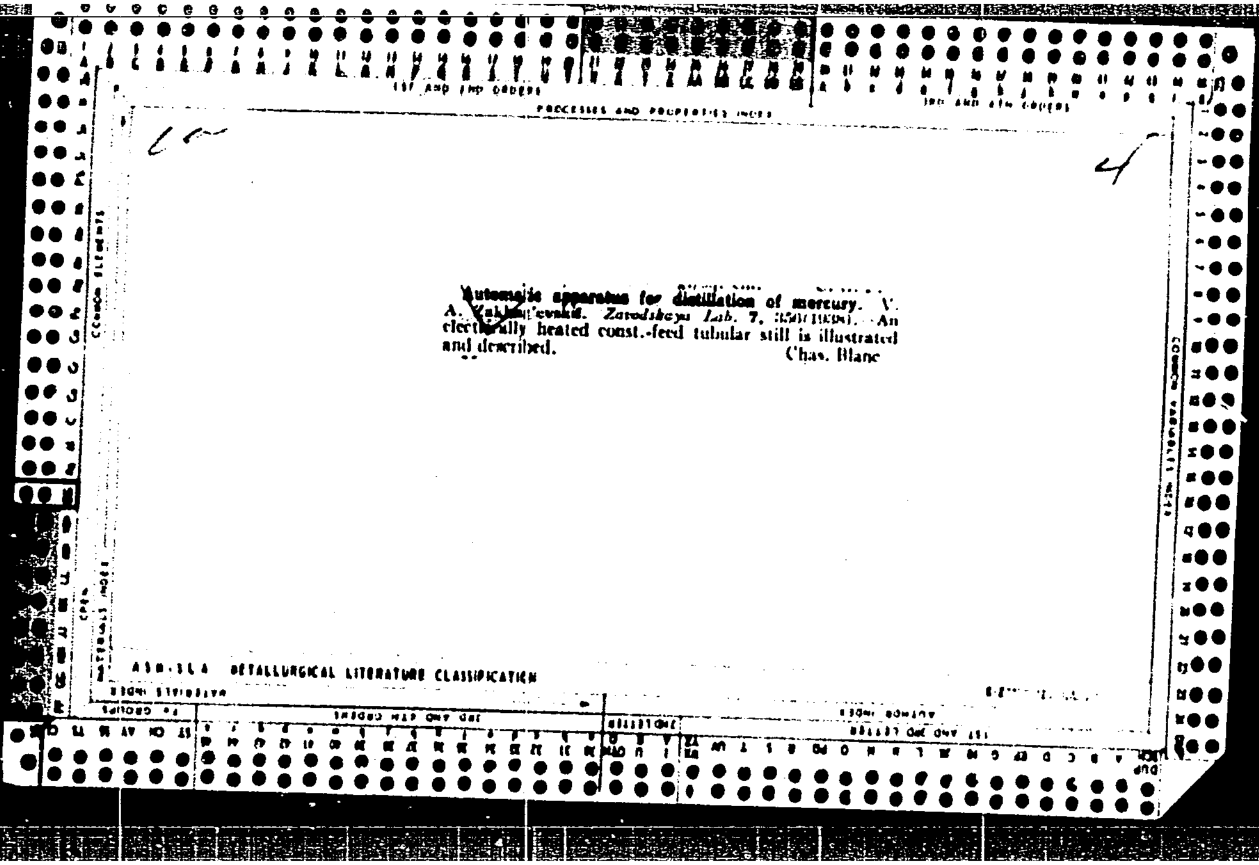
A simple device for regulating the temperature of electric (nichrome-wire resistor) furnaces. V. A. Zakhar'evskii. *Zavodskaya Lab.* 7, 353-4(1938).—A modified Heraeus thermoregulator is described. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

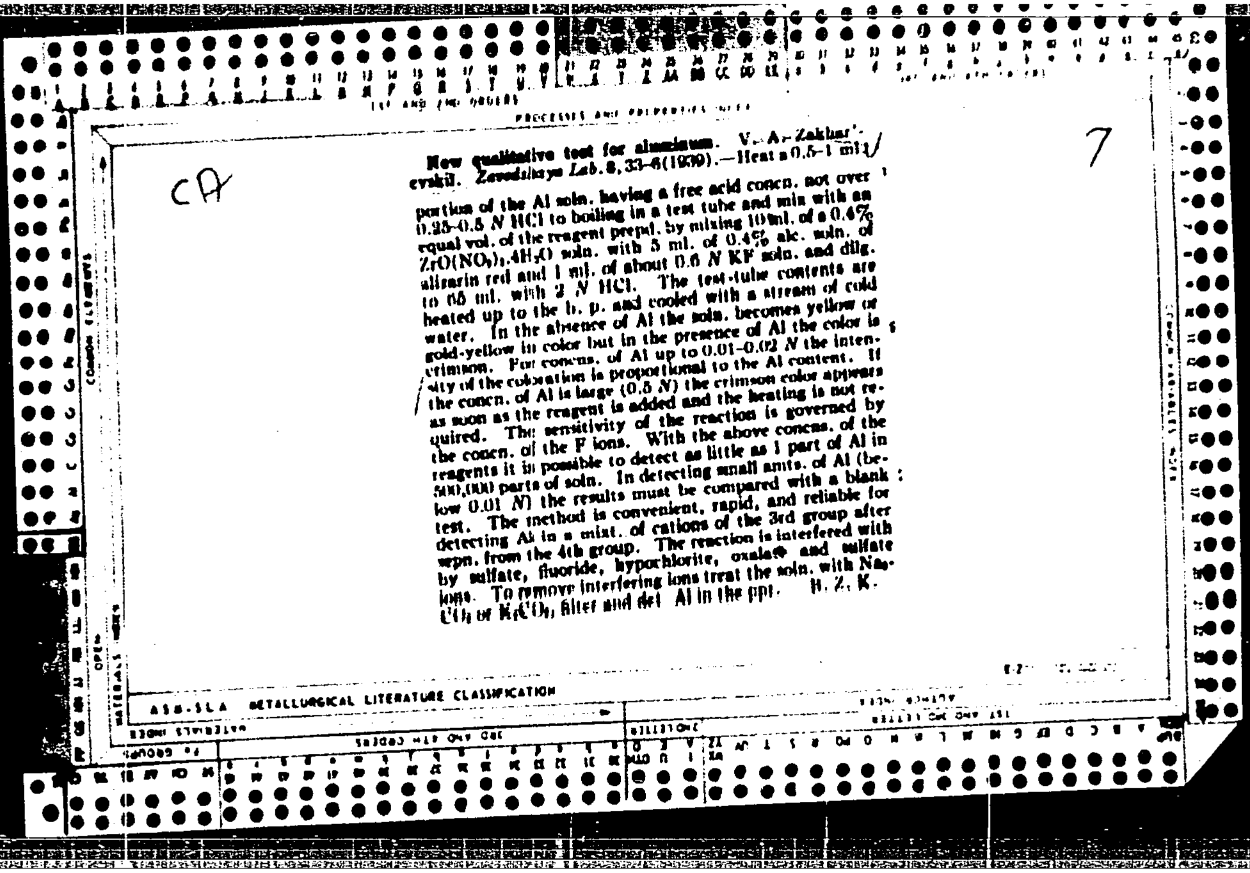
PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

4

Automatic apparatus for distillation of mercury. V. A. [illegible]'evskii. *Zavodskaya Lab.* 7, [illegible] (1938). An electrically heated const.-feed tubular still is illustrated and described. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

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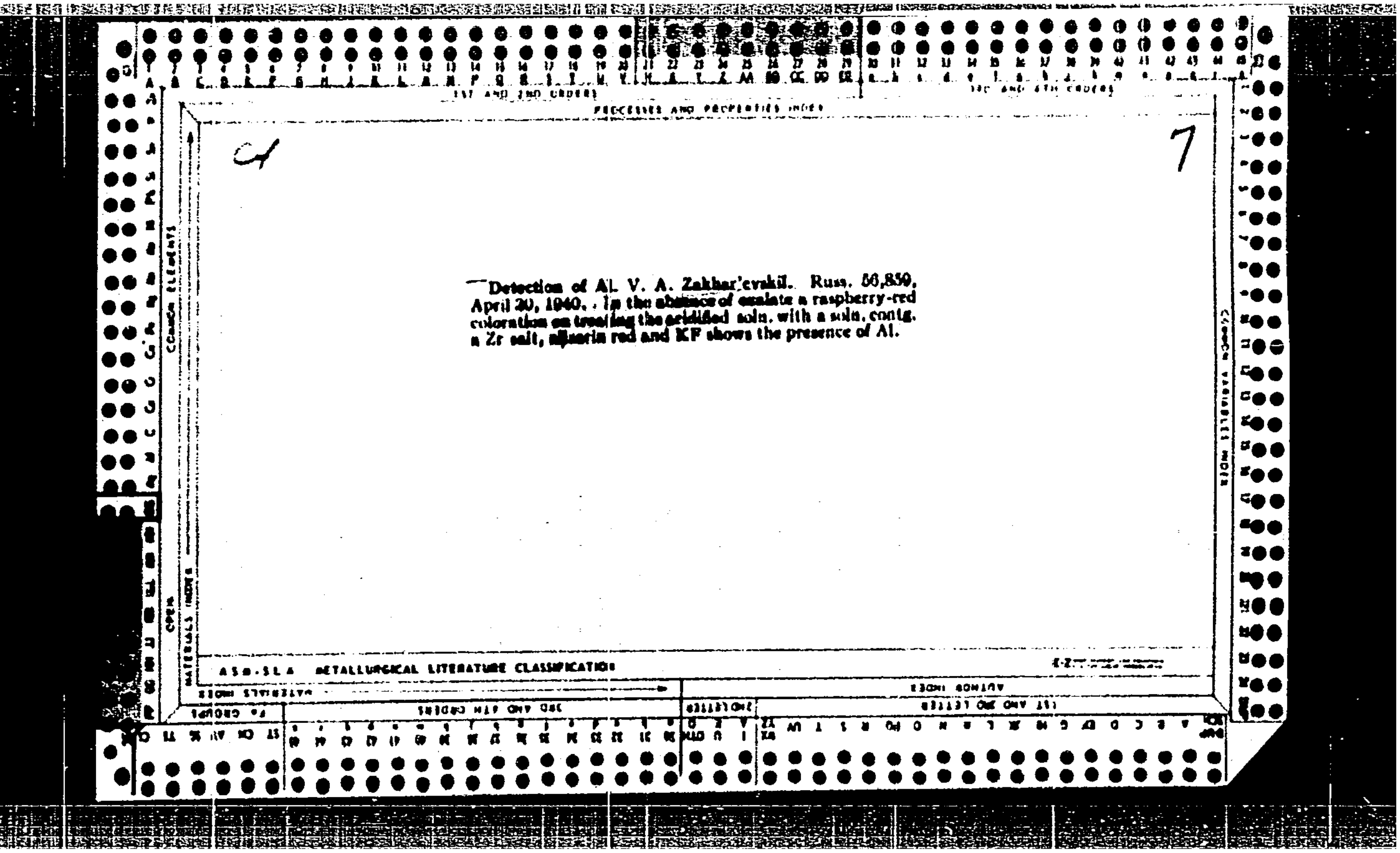
New qualitative test for aluminum. V. A. Zakhar'evskii. *Zavodskaya Lab.* 8, 33-6(1939).—Heat a 0.5-1 ml. portion of the Al soln. having a free acid concn. not over 0.25-0.5 *N* HCl to boiling in a test tube and mix with an equal vol. of the reagent prepd. by mixing 10 ml. of a 0.4% $ZrO(NO_3)_2.4H_2O$ soln. with 5 ml. of 0.4% alc. soln. of alizarin red and 1 ml. of about 0.6 *N* KF soln. and dilg. to 65 ml. with 2 *N* HCl. The test-tube contents are heated up to the b. p. and cooled with a stream of cold water. In the absence of Al the soln. becomes yellow or gold-yellow in color but in the presence of Al the color is crimson. For concns. of Al up to 0.01-0.02 *N* the intensity of the coloration is proportional to the Al content. If the concn. of Al is large (0.5 *N*) the crimson color appears as soon as the reagent is added and the heating is not required. The sensitivity of the reaction is governed by the concn. of the F ions. With the above concns. of the reagents it is possible to detect as little as 1 part of Al in 500,000 parts of soln. In detecting small amts. of Al (below 0.01 *N*) the results must be compared with a blank test. The method is convenient, rapid, and reliable for detecting Al in a mixt. of cations of the 3rd group after sepn. from the 4th group. The reaction is interfered with by sulfate, fluoride, hypochlorite, oxalate and sulfate ions. To remove interfering ions treat the soln. with Na_2CO_3 or K_2CO_3, filter and det. Al in the ppt. H. Z. K.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

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3RD AND 4TH ORDERS

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Detection of Al. V. A. Zakhar'evskii. Russ. 56,859, April 20, 1940. . In the absence of oxalate a raspberry-red coloration on treating the acidified soln. with a soln. contg. a Zr salt, alizarin red and KF shows the presence of Al.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

AUTHOR INDEX

LASSIEUR, Arnold; BORNEMAN-STARYNKEVICH, I.D. [translator]; ZAKHAR'YEVSKIY,
V.A., redaktor; NIKIFOROVA, A.N., tekhnicheskiy redaktor

[Analysis of silicates; rocks, glasses, glazes, and refractory
materials] Analiz silikatov; gornykh porod, stekl, glazurei,
ogneuporov. Perevod s frantsuzskogo I.D.Borneman-Starynkevich.
Moskva, Izd-vo inostrannoi lit-ry, 1954. 150 p. (MIRA 7:9)
(Silicates)

ZAKHAR'YEVSKIY, V.A.

PETROV, A.D., redaktor; ZAKHAR'YEVSKIY, V.A., redaktor; BELEVA, M.A.,
tekhnicheskiy r[redacted]

[Acetylene chemistry; a collection. Translated from the English and the German] Khimiia atsetilena; sbornik. Per. s angliiskogo i nemetskogo. Moskva, Izd-vo inostrannoi lit-ry, 1954. 374 p. (MIRA 8:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov)
(Acetylene)

WEISSBERGER, Arnold, editor; ZAKHAR'YEVSKIY, V.A. redaktor; ARNOL'DOV, V.V., redaktor; IL'IN, B.N., tekhnicheskiy redaktor.

[Physical methods of organic chemistry. Translated from English] Fizicheskie metody organicheskoi khimii. Perevod s angliiskogo. Moskva, Izd-vo inostrannoi lit-ry. Vol.4, 1955. 747 p. (MLRA 8:9)
(Chemistry, Organic)

ZAKHAR'YEVSKIY, V.A.

BOYKOVA, A.I. [translator]; BONDAR', A.I. [translator]; VOANO, V.G. [translator]; YEGOROVA, Ye.N. [translator]; NIKOGOSYAN, Kh.S. [translator]; TOROPOV, N.A., professor, redaktor; ZAKHAR'YEVSKIY, V.A., redaktor: OGANDZHANOVA, N.A., redaktor; DUMBER, I.Ya., tekhnicheskiy redaktor

[Physical chemistry of silicates; a collection of articles. Translated from the English and German] Fizicheskaia khimiia silikatov; sbornik statei. Perevod s angliiskogo i nemetskogo A.I.Boikovoi i dr. Pod red. N.A.Toropova. Moskva, Izd-vo inostrannoi lit-ry, 1956. 302 p. (MIRA 9:7)
(Silicates)

SIMONS, J.H., editor; KNUNYANTS, I.L., akademik, redaktor; VARSHAVSKIY, Ya.M., kandidat khimicheskikh nauk, redaktor; ZAKHAR'YEVSKIY, V.A., redaktor; GRIBOVA, M.P., tekhnicheskiy redaktor

[Fluorine chemistry. Translated from the English] Ftor i ego soedineniia. Perevod s angliiskogo. Pod red. I.L.Knuniantsa i IA.M.Varshavskogo. Moskva, Izd-vo inostrannoi lit-ry, Vol.2. 1956. 495 p. (MLRA 9:11)
(Fluorine)

SVENTOSLAVSKIY, V.V. [Świętosławski, Wojciech]; BANASHEK, Ye.I., kand.khim. nauk [translator]; ZAKHAR'YEVSKIY, V.A., red.; BELEVA, M.A., tekhn.red.

[Physical chemistry of coal tar] Fizicheskaia khimiia kamennougol'noi smoly. Translated from the Polish. Moskva, Izd-vo inostr.lit-ry, 1958. 370 p. (MIRA 12:2)
(Coal tar)

VATSULIK, Pavel [Vaculik, Pavel], inzh.dr.; ARTEM'YEV, A.A., kand.tekhn. nauk [translator]; VOL'FSON, B.M. [translator]; KNUNYANTS, I.L., akademik, red.; ZAKHAR'YEVSKIY, V.A., red.; PRIDANIYEVA, S.V., tekhn.red.

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