ACCESSION NR: AT4014046 S/3073/63/000/000/0075/0081

AUTHOR: Oding, I. A.; Gurevich, S. Ye.

TITLE: Cyclic strength of steel in the presence of sharp notches

SOURCE: Prochnost' metallov pri peremenny*kh nagruzkakh; materialy* tret'yego soveshchaniya po ustalosti metallov, 1962 g. Moscow, Izd-vo AN SSSR, 1963, 75-81

TOPIC TAGS: steel, steel fatigue, cyclic strength, bending stress, stress concentrator, notch toughness, notch radius, crack, nonpropagating crack

ABSTRACT: The creation of sharp stress concentrators is sometimes unavoidable in the design of machine parts. For this reason, the study of fatigue strength in steel specimens having notches with a theoretical coefficient of stress concentration (K_t) greater than 3 acquires practical importance. The present paper deals with the cyclic bending strength of cylindrical specimens of low-strength steel 3 and high-strength steel 30KhGSA in the presence of circular grooves having bottom radii of 0.02-0.80 mm (values of K_t from 1.8 to 14.5). The results show that the fatigue strength decreases with an increase in the sharpness of the notch up to a certain limit (the critical notch radius), after which it remains constant. The critical notch radius thus corresponds to a limiting minimal cyclic strength, which is of practical significance since further work may permit the

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ACCESSION NR: AT4014046

calculation of an optimal notch radius. The existence of this limiting value is explained by the peculiarity of the stressed state in very sharp notches. An inverse straight-line relationship was obtained between log σ and K_t, and formulas are derived in the paper for the coefficient of notch sensitivity q and the cyclic coefficient of notch sensitivity v:

$$q = \frac{K_\sigma - 1}{K_t - 1} \quad (1)$$

$$v = E\frac{\Delta_{-1p}}{\sigma_{-1p}} \quad (2)$$

As shown in Fig. 1 of the Enclosure, in the presence of large stress concentrators the graph of σ vs. K_t shows an area characterized by nonpropagating microcracks and the appearance of submicroscopic fatigue cracks; this indicates that notched samples have a cyclic limit of elasticity. The possible reasons for the appearance of nonpropagating cracks are discussed at length. Orig. art. has: 6 figures and 2 formulas.

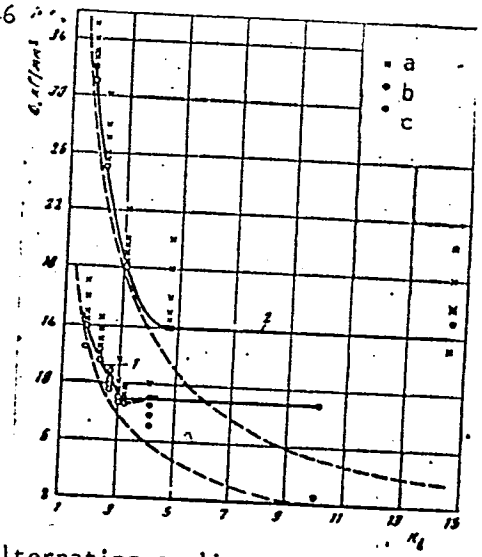
ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 20Feb64 ENCL: 01

Card 2/3 SUB CODE: MM NO REF SOV: 006 OTHER: 002

ACCESSION NR: AT4014046

ENCLOSURE: 01



Relationship between alternating cyclic stress in kg/sq. mm and the theoretical coefficient of stress concentration.

1 - steel 3; 2 - steel 30KhGSA; 2 - ruptured specimens; b - nonruptured specimens; c - nonruptured specimens in which the notches show nonpropagating microcracks due to fatigue.

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L 50523-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) JD
ACCESSION NR: AP5010161 UR/0020/65/161/002/0336/0339

AUTHOR: Oding, I. A. (Corresponding member AN SSSR, Deceased); Gurevich, S. Yu. 22 B

TITLE: Mechanism of occurrence of non-propagating fatigue cracks in notches in metals

SOURCE: AN SSSR. Doklady, v. 161, no. 2, 1965, 336-339

TOPIC TAGS: metal fatigue, metal notching, metal failure, metal crack propagation

ABSTRACT: The presence of non-propagating microcracks in notches, first noted by A. J. Fenner et al. (Engineering v. 171, No. 4452, 637, 1951) and investigated by various workers, is explained in the present article as being due to two stresses, one required to produce the microcrack, and the other required for the crack to move into the interior of the metal. It is shown on the basis of a stress-fatigue diagram presented by the authors earlier (Prochnost metallov pri peremennykh nagruzkakh [Strength of Metals under Variable Loads], AN SSSR, 1953, p. 79) that the sharper the notch, the smaller the stress just necessary to produce the microcrack. On the other hand, the sharper the notch the larger the stress necessary for further movement of the crack, since the latter stress depends on the length of the

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L 50523-65
ACCESSION NR: AP5010161

effective zone of action of the notch. If the total stress exceeds the stress required to move the microcrack, motion will take place, otherwise the microcrack will be immobile. For any given metal, the stress produced actually at the end of the crack depends on three factors: the distribution of stress due to the applied load over the notch cross section, the distribution due to the decreased cross section in which the crack develops, and the concentration of the stress produced by the crack itself. These three factors may cancel each other and stop the motion of the crack. Crack propagation may also be hindered if the plastic deformation [illegible] at the end of the crack is smaller than that at the bottom of the notch [illegible]. 4 figures.

ASSOCIATION: None

SUBMITTED: 08Jul64 ENCL: 00 SUB CODE: MM, AS

NR REF SOV: 003 OTHER: 005

Card 2/2

L 2529-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/HW
ACCESSION NR: AP5021499 UR/0370/65/000/004/0126/0136
539.43

AUTHOR: Gurevich, S. Ye. (Moscow); Oding, I. A. (Deceased) (Moscow)

TITLE: Fatigue strength of high-strength steel melted by various methods and heat treated under various conditions

SOURCE: AN SSSR. Izvestiya. Metally, no. 4, 1965, 126-136

TOPIC TAGS: high strength steel, superstrength steel, medium alloy steel, chromium containing steel, vacuum melted steel, steel mechanical property, steel fatigue strength /45Kh5GSNMV steel, 45Kh5GNMV steel

ABSTRACT: The effect of vacuum arc melting on the tensile and fatigue strengths of 45Kh5GSNMV (0.44—0.47% C, 1.00—1.24% Mn, 1.16—1.50% Si, 4.9—5.5% Cr, 1.85—2.15% Ni, 0.48—0.65% M, 0.73—0.96% W) and 45Kh5GNMV (0.42% C, 1.23% Mn, 0.07% Si, 5.9% Cr, 2.08% Ni, 0.65% Mo, 1.49% W) high-strength steels has been investigated. The 45Kh5GSNMV steel was arc melted (heat P) in an open atmosphere and vacuum remelted (heats P1 and P2); the 45Kh5GNMV was vacuum arc melted (heat P3). After forging, the steels were heat treated to obtain the highest strength after quenching (hardness, R_C60), and tempered at 625, 550, and 200C to obtain a minimum and medium hardness of 30—32, 41—43, and 51—55 R_C kg/cm^2, respectively. The tensile strength σ_b,

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L 2529-66
ACCESSION NR: AP5021499

yield strength $\sigma_{0.2}$, and true tensile strength S_k of vacuum-melted P1 and P2 heats tempered at 550 and 625C were very close to each other, but were somewhat lower than those of P and P3 heats. The vacuum had no clearly defined effect on the elongation and reduction of area, but appreciably improved the notch toughness. The use of a vacuum substantially increased the fatigue strength σ_{-1} of smooth specimens only in the steel tempered at 200C. The fatigue strength increase was 11 or 20 kg/mm^2 (20 or 37%) for P1 and P2 or P3 heats, respectively. However, in the presence of stress concentrations, the vacuum-melted steel showed no superiority in respect to the fatigue strength $\sigma_{-1\eta}$. All the investigated steels, regardless of the melting method, had the lowest notch sensitivity when tempered at 200C. This indicates that these steels can be used in the low-tempered condition for parts which have structural stress concentrators. It is noted that steels with a tensile strength above 120 kg/mm^2 do not show the usual horizontal portion of the σ-lg N curve up to 10^8 cycles. Their σ-lg N dependence is expressed by a straight line whose slope increases with increasing steel strength. Orig. art. has: 6 figures and 3 tables.

[MS]

ASSOCIATION: none

SUBMITTED: 08Aug64 ENCL: 00 SUB CODE: MM, AS

NO REF SOV: 005 OTHER: 004 ATD PRESS: 4108

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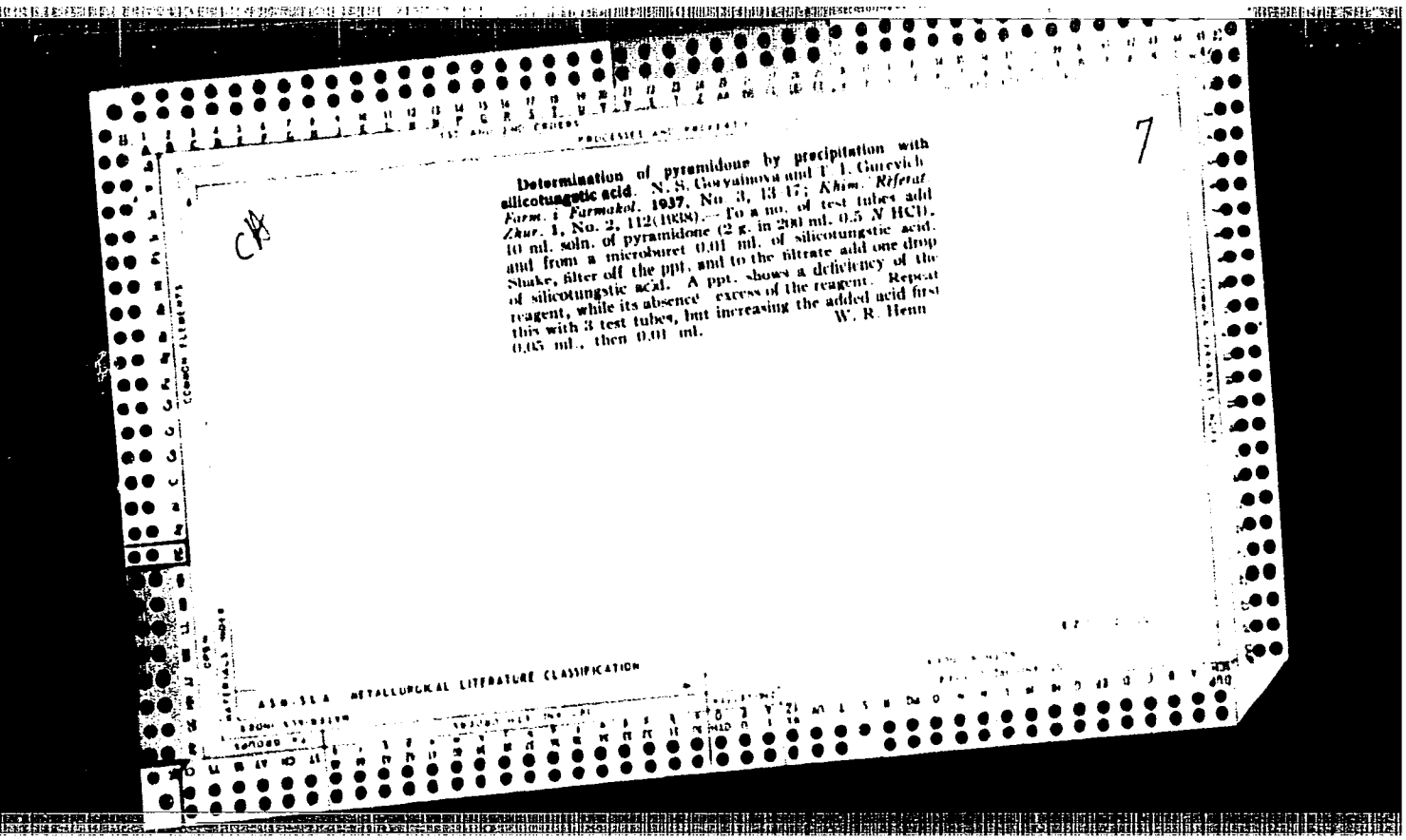
BOBKOV, Nikolay Vladimirovich; GUREVICH, Sh.M., dots., kand. ekon. nauk, retsenzent; KOVALEV, A.I., retsenzent; MYASNIKOV, N.V., red.

[General course in river transportation] Obshchii kurs rechnogo transporta. Moskva, "Transport," 1964. 212 p. (MIRA 17:4)

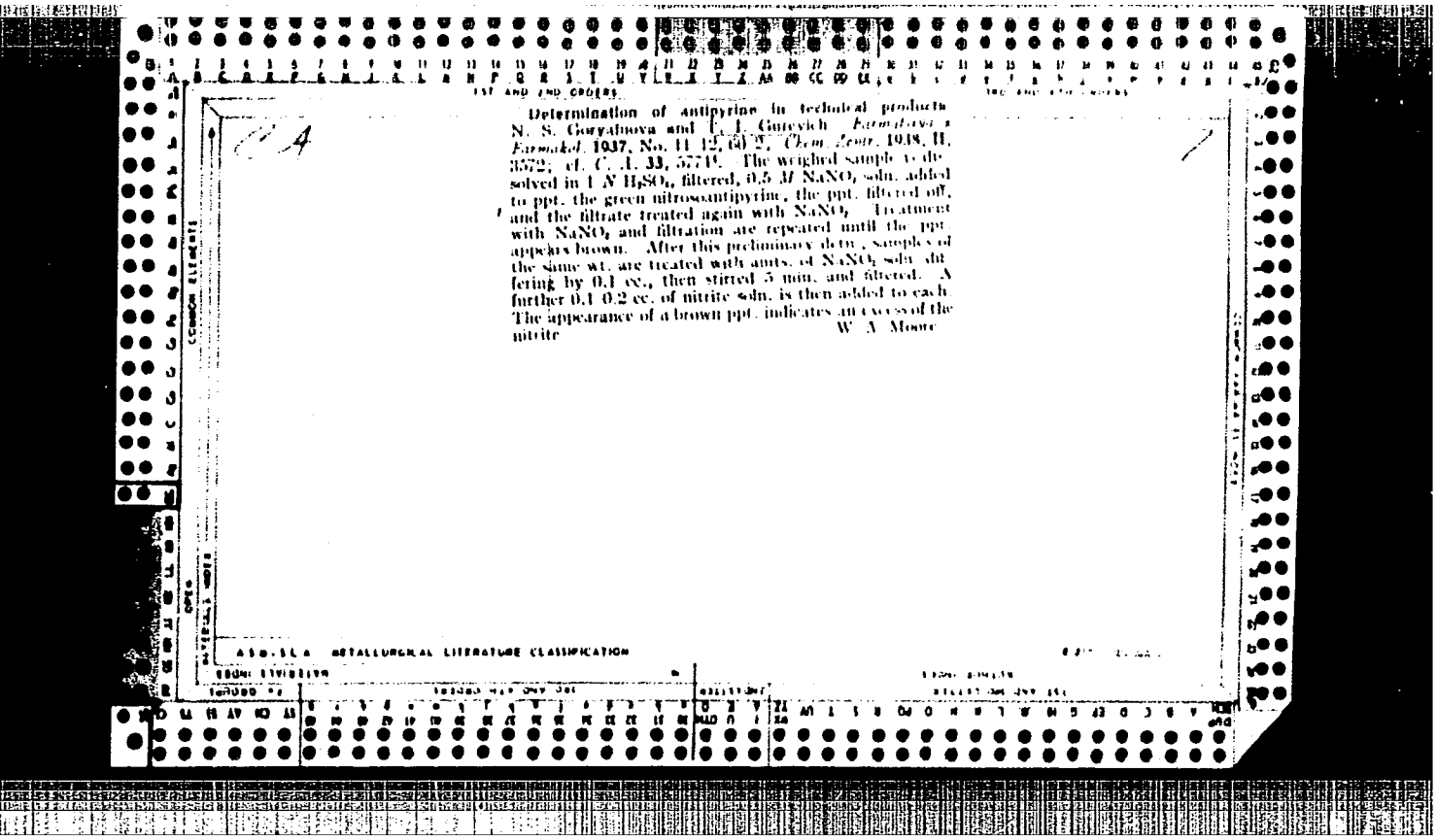
[redacted], S.Yu.

Horizontal centrifugal [redacted]. [redacted] (MIRA 18:2)



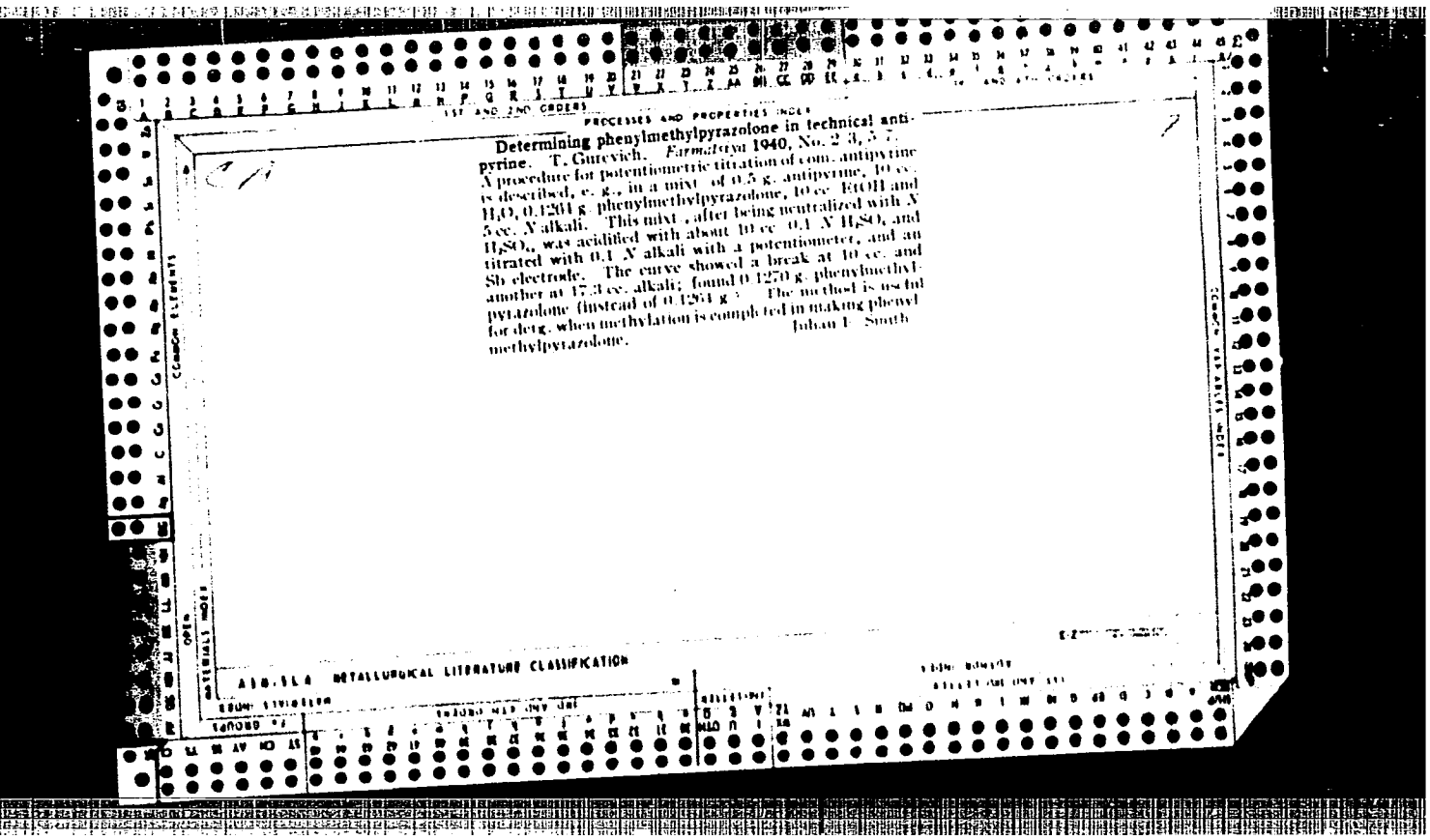
Determination of pyramidone by precipitation with silicotungstic acid. N. S. Govyatinova and T. I. Gurevich *Farm. i Farmakol.* **1937**, No. 3, 13-17; *Khim. Referat. Zhur.* 1, No. 2, 112(1938).—To a no. of test tubes add 10 ml. soln. of pyramidone (2 g. in 200 ml. 0.5 *N* HCl), add from a microburet 0.01 ml. of silicotungstic acid. Shake, filter off the ppt. and to the filtrate add one drop of silicotungstic acid. A ppt. shows a deficiency of the reagent, while its absence excess of the reagent. Repeat this with 3 test tubes, but increasing the added acid first 0.05 ml., then 0.01 ml.

W. R. Henn



Determination of antipyrine in technical products. N. S. Goryainova and T. I. Gurevich. *Farmatsevt. i Farmakol.* **1937**, No. 11-12, 60-2. *Chem. Zentr.* 1938, II, 3572; cf. *C. A.* **33**, 5779. The weighed sample is dissolved in 1 *N* H_2SO_4, filtered, 0.5 *M* $NaNO_2$ soln. added to ppt. the green nitrosoantipyrine, the ppt. filtered off, and the filtrate treated again with $NaNO_2$. Treatment with $NaNO_2$ and filtration are repeated until the ppt. appears brown. After this preliminary detn., samples of the same wt. are treated with amts. of $NaNO_2$ soln. differing by 0.1 cc., then stirred 5 min. and filtered. A further 0.1-0.2 cc. of nitrite soln. is then added to each. The appearance of a brown ppt. indicates an excess of the nitrite.

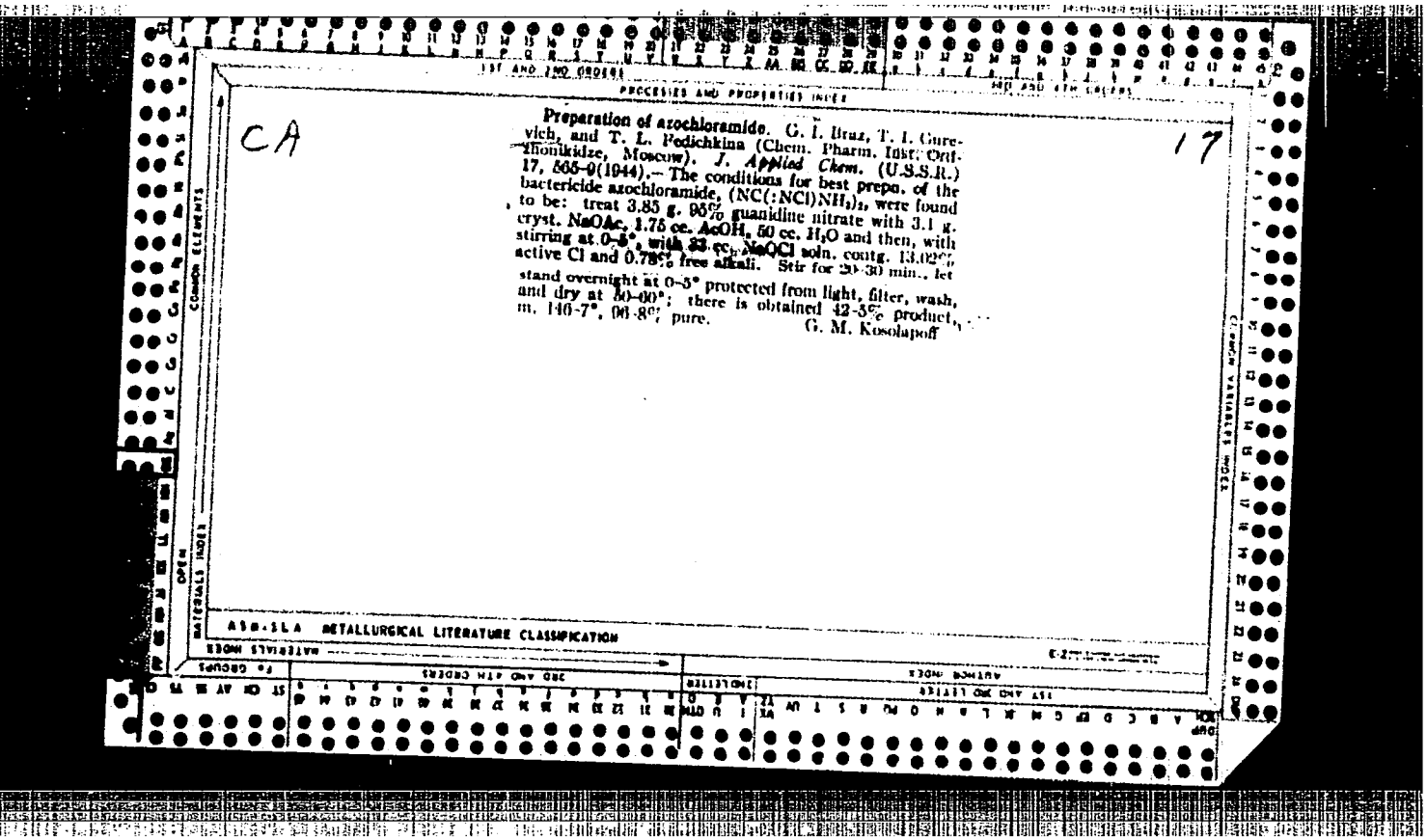
W. A. Moore



PROCESSES AND PROPERTIES INDEX

Determining phenylmethylpyrazolone in technical antipyrine. T. Gurevich. *Farmatsiya* 1940, No. 2-3, 5-7. A procedure for potentiometric titration of com. antipyrine is described, e. g., in a mixt. of 0.5 g. antipyrine, 10 cc. H_2O, 0.1201 g. phenylmethylpyrazolone, 10 cc. EtOH and 5 cc. N alkali. This mixt., after being neutralized with N H_2SO_4, was acidified with about 10 cc. 0.1 N H_2SO_4 and titrated with 0.1 N alkali with a potentiometer, and an Sb electrode. The curve showed a break at 10 cc. and another at 17.3 cc. alkali; found 0.1270 g. phenylmethylpyrazolone (instead of 0.1264 g.). The method is useful for detg. when methylation is completed in making phenylmethylpyrazolone. Julian F. Smith

A10.5L4 METALLURGICAL LITERATURE CLASSIFICATION



CA

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Preparation of azochloramide. G. I. Braz, T. I. Gurevich, and T. L. Fedichkina (Chem. Pharm. Inst., Ordzhonikidze, Moscow). *J. Applied Chem.* (U.S.S.R.) 17, 365–9(1944).— The conditions for best prepn. of the bactericide azochloramide, $(NC(:NCl)NH_2)_2$, were found to be: treat 3.85 g. 95% guanidine nitrate with 3.1 g. cryst. NaOAc, 1.75 cc. AcOH, 50 cc. H_2O and then, with stirring at 0–5°, with 33 cc. NaOCl soln. contg. 13.02% active Cl and 0.78% free alkali. Stir for 20–30 min., let stand overnight at 0–5° protected from light, filter, wash, and dry at 50–60°; there is obtained 42–5% product, m. 146–7°, 96–8% pure.

G. M. Kosolapoff

188T25

GUREVICH, T. I.

USSR/Chemistry - Pharmaceuticals Aug 51

"Synthesis of Aminosulfones. V. Synthesis of Bis-(4-Nitrophenylthio)-Alkyl- and Aryl-Compounds and Products of Their Reduction," I. Kh. Fel'dman, T. I. Gurevich

"Zhur Obshch Khim" Vol XXI, No 8, pp 1540-1544

In connection with study of chemotherapeutic properties of aminosulfides, condensed several aldehydes in soln with p-nitrophenylmercaptan, using dry HCl, to form 4 bis-(4-nitrophenylthio)-substituted products. From latter prepd 4 bis-(4-aminophenylthio)-substituted products by reduction with H_2 at room temp in EtOH in presence of Raney Ni.

188T25

GUREVICH, T. I.

188T26

USSR/Chemistry - Pharmaceuticals Aug 51

"Synthesis of Aminosulfones. VII. Pseudothio Esters of o-Aldehydocarboxylic Acids and Their Derivatives," I. Kh. Fel'dman, T. I. Gurevich, All-Union Sci Res Chemicophar Inst

"Zhur Obshch Khim" Vol XXI, No 8, pp 1544-1548

Continuing work on study of method of prepn of β-disulfides by condensation of aldehydes with p-nitrophenylmercaptan, condensed o-aldehydobenzoic acid and opianic acid with p-nitrophenylmercaptan to obtain corr ψ-thioethers, which are oxidized into sulfones. Reduction of thioethers and sulfones yielded corr amino compds.

188T26

GUREVICH, T. I.

191T46

USSR/Chemistry - Synthetic Pharmaceuticals Sep 51

"Synthesis of Aminosulfides and Aminosulfones. XI. Synthesis of 1,1,1-Trichloro-2-Hydroxy-Ethane-(n-Nitrophenyl)-Sulfide, Its Acetoxy Derivative and Sulfoxide," N. Kh. Fel'dman, T. I. Gurevich, All-Union Chemicopharm Inst imeni Ordzhonikidze

"Zhur Obshch Khim" Vol XXI, No 9, pp 1656-1659

Condensation of chloral with n-nitrophenylmercaptan yielded product of addn of 1 g-mole of chloral to 1 g-mole of mercaptan (without sepn of H_2O). In acetic anhydride medium acetylation of

191T46

USSR/Chemistry - Synthetic Pharmaceuticals (Contd) Sep 51

OH group also occurred. Nonacetylated product's mol was decompd upon attempts at acetylation or oxidation. Acetylated product was oxidized to corresponding sulfoxide. Both condensation products were decompd by heating or action of alkali solns.

191T46

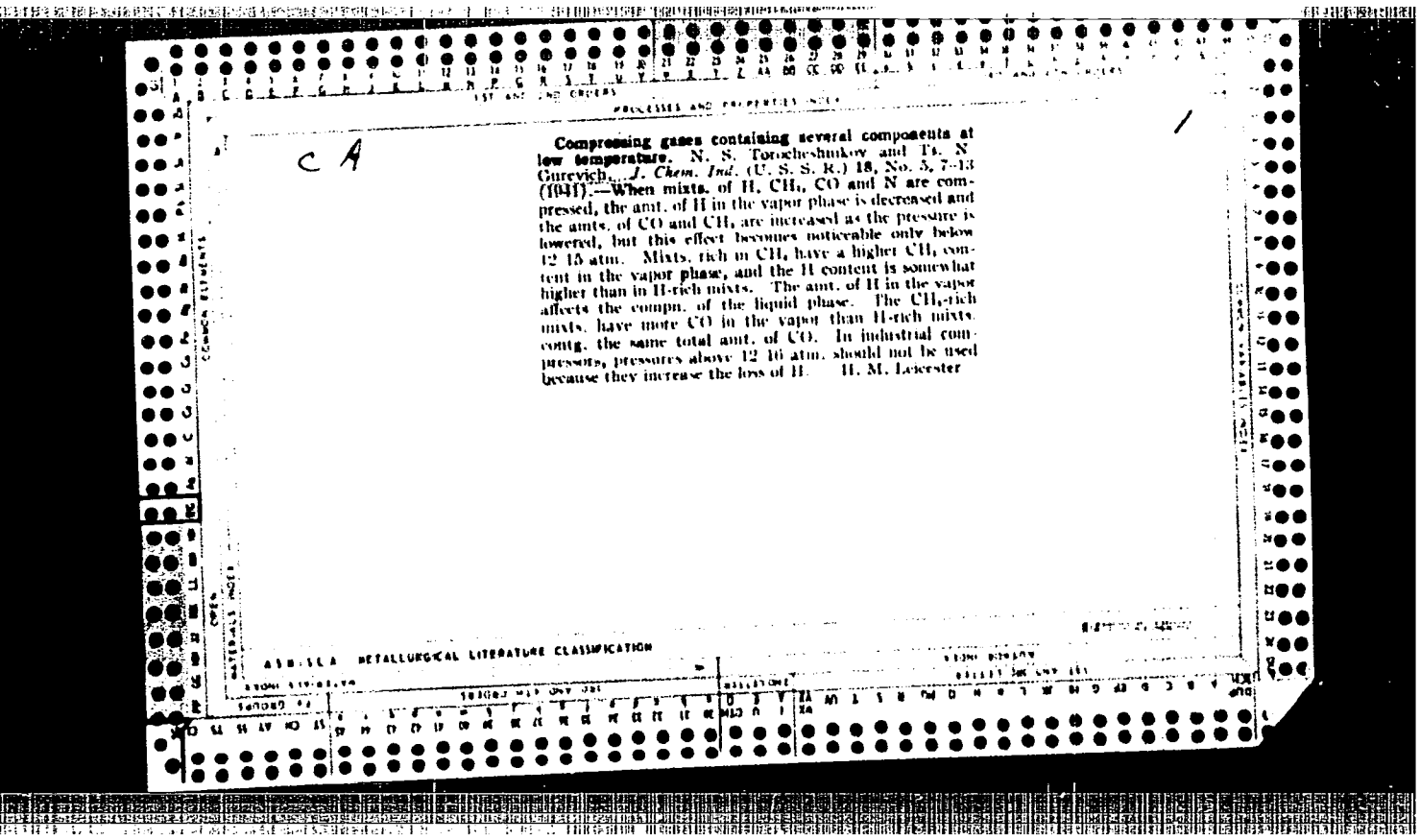
GUREVICH, T.I.

Analytical characteristics of diocide. Khim. i med. no.10:59-60 '59.
(DIOCIDE) (MIRA 13:2)

GUREVICH, T.N.; ZUBCHUK, V.A.; YAKUBOVICH, S.V.

Photochemical activity of pigments and methods for its determination. Lakokras.mat.i ikh prim. no.1:55-57 '63. (MIRA 16:2)

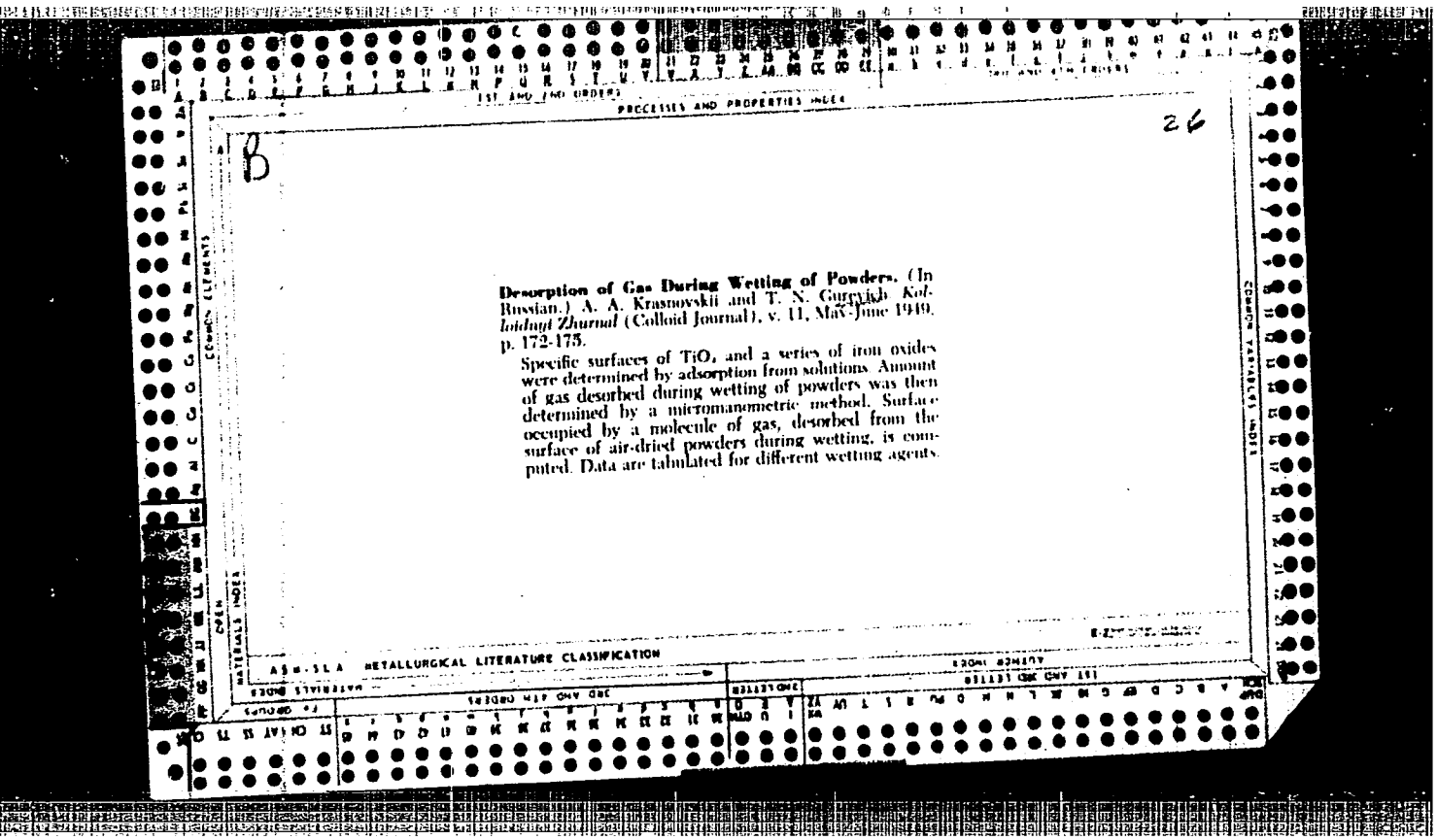
(Pigments) (Photochemistry)



C A

Compressing gases containing several components at low temperature. N. S. Torocheshnikov and Ts. N. Gurevich. *J. Chem. Ind.* (U. S. S. R.) 18, No. 5, 7–13 (1941).—When mixts. of H, CH_4, CO and N are compressed, the amt. of H in the vapor phase is decreased and the amts. of CO and CH_4 are increased as the pressure is lowered, but this effect becomes noticeable only below 12–15 atm. Mixts. rich in CH_4 have a higher CH_4 content in the vapor phase, and the H content is somewhat higher than in H-rich mixts. The amt. of H in the vapor affects the compn. of the liquid phase. The CH_4-rich mixts. have more CO in the vapor than H-rich mixts. contg. the same total amt. of CO. In industrial compressors, pressures above 12–16 atm. should not be used because they increase the loss of H. H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Desorption of Gas During Wetting of Powders. (In Russian.) A. A. Krasnovskii and T. N. Gurvich. *Kolloidnyi Zhurnal* (Colloid Journal), v. 11, May-June 1949, p. 172-175.

Specific surfaces of TiO_2 and a series of iron oxides were determined by adsorption from solutions. Amount of gas desorbed during wetting of powders was then determined by a micromanometric method. Surface occupied by a molecule of gas, desorbed from the surface of air-dried powders during wetting, is computed. Data are tabulated for different wetting agents.

CA

26

Relation between atmospheric stability of pigmented paint films and the pigment photosensitized formation of peroxide compounds. A. A. Krasnovskii and F. N. Gurevich. *Doklady Akad. Nauk S.S.S.R.* **74**, 569-72 (1950).—In case of TiO_2, peroxides were detd. by a colorimetric method based on measuring intensity of coloration from reaction of Fe^{+++} and CNS⁻; accelerated atm. stability tests were made under a C arc of 2800 w. In case of ZnO, measurements were made of the fading of methylene in an aq. suspension of ZnO instead of direct detn. of peroxide. TiO_2 with the structure of anatase was photochemically more active than rutile. Muffle ZnO had bright yellow fluorescence and ZnO obtained by calcination of carbonates had dark brown fluorescence. Usually, samples least active photochemically had least bright fluorescence; it is not clear, however, to what extent the dislocation of the cryst. lattice of ZnO which dets. its fluorescence also dets. its photosensitizing activity. The formation of the peroxides leads to the accelerated destruction (photooxidation) of the binder around the particles of the pigment of the upper layer as a result of which "chalking" takes place. B. Z. Kaunch

CA

3

Photocatalytic action of some metal oxides. A. A. Krasnovskiĭ and T. N. Gurevich. *Doklady Akad. Nauk S.S.S.R.* **75**, 715–18(1950).—(1) The rate of *oxidation by atm. O_2 of linseed oil and of linoleic acid* in toluene or EtOH soln., heterogeneously catalyzed by metal oxides, i.e. the rate of absorption of O_2 (formation of peroxides by addn. to the double bond) is accelerated by simultaneous illumination with long-wave ultraviolet (400–410 mμ or shorter) absorbed by the solid oxide but not by the reactant and solvent. The promoting effect of the light is expressed by $\varphi = k_2/(k_1 + k_2)$, where k_1 = zero-order rate of the dark catalyzed reaction, k_2 = of the photochem. reaction without catalyst, k_3 = of the catalyzed reaction on illumination. For linoleic acid in toluene (1 ml. of 10% soln.), at 40°, with 0.2 g. oxide, 3 ml. solvent, on TiO_2 (98%, anatase structure) k_1, k_2, k_3 (in cu. mm. O_2/min.), and φ, are 0.39, 0.67, 4.3, and 4.0; on ZnO (from $ZnCO_3$) 1.77, 0.67, 1.87, 0.79; on Fe_2O_3, 0.0, 0.07, 0.0, —; on Pb_3O_4 0.79, 0.67, 4.2, 2.8; on PbO 2.46, 0.67, 5.05, 1.8; on Cr_2O_3, 0.20, 0.67, 0.22, 0.25. Rutile-TiO_2 shows a weaker effect than anatase. With TiO_2, all reactions are somewhat slower in alc. with 5–6% H_2O than in toluene, but γ is about the same in the 2 solvents. Probably owing to complete dehydration, TiO_2 heated to 600° shows an increased catalytic activity; the photochem. activity of TiO_2 sample dried at 110° and heated to 600° is about the same. Adsorption of Cr^{+++} and Co^{++} ions (~ 10^{-4} g./g.) increases the catalytic and lowers the photochem. activity of TiO_2. (2) The effects of illumination on the rate of the catalytic decompn. of H_2O_2 at 40° (3 ml. H_2O, 1 ml. H_2O_2 soln. of c %, amt. of catalyst a g.) are given by the following data (c, a, k_1, k_2, k_3, and φ): on ZnO, 1, 0.1, 17.5, 0.1, 20.0, and 1.14; on TiO_2, 1, 0.1, 1.2, 0.1, 5.6, and 4.6; on Fe_2O_3, 1, 0.1, 4.1, 0.1, 4.4, and 1.05 (practically no effect); on Pb_3O_4 Cr_2O_3, 1, 0.1, 0.4, 0.1, 0.4, and 0.8 (no effect); on Pb_3O_4 (at 25°) 0.03, 0.01, 1.04, 0.03, 5.52, and 5.3; on PbO (at 25°) 0.03, 0.01, 3.25, 0.03, 9.75, and 3.0. Illumination of an Fe-Fe_2O_3 electrode gave no promoting effect on the decompn. of H_2O_2. No effect of light was observed on the rate of the catalytic decompn. of H_2O_2 in toluene. (2) The photocatalytic effect is pronounced with TiO_2 and Pb_3O_4 and PbO, to a lesser extent on ZnO. Of these oxides, only ZnO has a marked fluorescence at room temp.; ZnO and Pb_3O_4 are known to be photoconductors, but there are no data on the photocond. of TiO_2. The lifting of an electron to the conduction zone through absorption of a quantum facilitates the electron transition between the adsorbed mol. and the surface and thus lowers the activation energy. The desensitization by adsorbed Cr^{+++} and Co^{++} ions may be linked with the reverse process. The lowering of the potential barrier through illumination of the solid may, on the other hand, be linked with a transfer of vibrational energy to the adsorbed mol. through degradation of the quantum absorbed in the lattice. The chem. effect of the light-promoted catalysis amounts to formation of peroxide-type compds. on the surface which initiate chains in the vol. of the soln. The decompn. of H_2O_2 is no doubt initiated by free OH radicals formed on the surface upon absorption of a light quantum.

N. Thon

GURETON, Ts. N.

Compressing gases containing several components at low temperatures. N. S. Torocheshnikov and Ts. N. Gurevich. *J. Chem. Ind. (U.S.S.R.)* 18, No. 5, 7–13 (1941). When mixts. of H, CH_4, CO and N are compressed, the amt. of H in the vapor phase is decreased and the amts. of CO and CH_4 are increased as the pressure is lowered, but this effect becomes noticeable only below 12–15 atm. Mixts. rich in CH_4 have a higher CH_4 content in the vapor phase, and the H content is somewhat higher than in H-rich mixts. The amt. of H in the vapor affects the compn. of the liquid phase. The CH_4-rich mixts. have more CO in the vapor than H-rich mixts. contg. the same total amt. of CO. In industrial compressors, pressures above 12–15 atm. should not be used because they increase the loss of H. H. M. Leicester

KITAYGORODSKIY, I.L.; GUREVICH, TS.N.

Effect of small additives of some oxides on the strength of corundum materials. Trudy MKHTI no.27:65-72 '59. (MIRA 15:6)
(Corundum)

KITAYGORODSKIY, I.I.; GUREVICH, TS.N.

Effect of temperature of firing on the wear resistance of corundum material. Trudy MKHTI no.27:73-77 '59. (MIRA 15:6)
(Corundum)

PHASE I BOOK EXPLOITATION SOV/3592

Vsesoyuznoye khimicheskoye obshchestvo imeni D.I. Mendeleyeva

Silikaty; sbornik statey po khimii i tekhnologii silikatov, vyp. 1 (Silicates; Collection of Articles on the Chemistry and Production of Silicates, No. 1) Moscow, Gosstroyizdat, 1959. 105 p. Errata slip inserted. 3,000 copies printed.

Editorial Board: M.A. Matveyev (Resp. Ed.), Yu.M. Butt, and M.O. Yushkevich; Ed. of Publishing House: V.A. Rozanova; Tech. Ed.: N.I. Rudakova.

PURPOSE: This booklet is intended for chemists and geologists interested in silicate analysis.

COVERAGE: This is a collection of articles on the chemistry and technology of silicates. The contributing authors discuss the effect of admixtures on sintering processes and on the properties of Portland cements. The text also discusses the properties of certain glasses, the processing of ceramic materials, the process of drying facing tile, the stability of solid solutions of calcium

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Silikaty; Collection (Cont.) SOV/3592

alumoferrite, the activation of cement, the production of aluminous cement, the preparation of pulping rolls, the interaction of quartz with lime, and various problems related to the production of silicate-calcite materials. No personalities are mentioned. References are given at the end of each article.

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AVAILABLE: Library of Congress

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TM/lsb
5-18-60

KITAYGORODSKIY, I.I.; GUREVICH, TS.N.

Effect of low additives of various oxides on sintering processes in alumina. Silikaty no.1:14-19 '59. (MIRA 13:2)
(Alumina)

15(2) SOV/72-59-5-2/23

AUTHORS: Kitaygorodskiy, I. I., Professor, Gurevich, Ts. N.

TITLE: Intensification of Alumina Pulverization in the Glass- and Ceramic Industry (Intensifikatsiya izmel'cheniya glinozema v stekol'noy i keramicheskoy promyshlennosti)

PERIODICAL: Steklo i keramika, 1959, Nr 5, pp 5 - 9 (USSR)

ABSTRACT: The working conditions of ball mills for alumina were investigated by the Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva (Moscow Institute of Chemical Technology imeni Mendeleyev). In connection herewith the authors of this article refer to papers by D. N. Poluboyarinov, V. L. Balkevich, G. A. Vydrik (footnote), D. N. Poluboyarinov, R. Ya. Popil'skiy, and T. V. Malikova (Ref 1). The authors of this article investigated the influence of the correlation of the weight of alumina and the dispersion medium, as well as of an active addition. The senior laboratory assistant Ye. I. Sysoyeva participated in these investigations (Ref 2). The authors rely on the works by Rebinder, P. A. Kalinkovskaya (Ref 3), and N. M. Lubman (Ref 4). The dispersion medium and the active addition were chosen by means of the Kuznetsov apparatus (see the papers by N. M. Pavlushkin,

Card 1/2

and G. G. Sentyurin in reference 5). The corundum hardness-reducing agents are described in table 1. Oleic acid and the aqueous sugar solution of 0.05% are indicated as being the best ones. The kinetics of alumina pulverization in various correlations of water and alumina is given in table 2; in this case the correlation of 0.875 proved to be the optimum one. Table 3 shows the kinetics of alumina pulverization with an addition of 0.1% sugar, and table 4 contains the results of experiments with the correlation 0.75 of water and alumina as well as with a sugar content of 0.05 and 0.15%. Conclusion: the time of pulverization could be reduced by almost 1/3 due to the determination of the optimum pulverization conditions. This grinding intensification is obtained with a correlation of 1 to 0.75 water and alumina and by a sugar addition of 0.1% of the weight of water. It can be increased by further more exact experiments. There are 4 tables and 5 Soviet references.

KITAYGORODSKIY, I.I.; GUREVICH, TS.N.

What's new in the synthesis of corundum microlite. Stek.i ker. 17 no.2:10-12 F '60. (MIRA 13:6)
(Corundum)

RUDNEV, German Viktorovich; GUREVICH, T.V., retsenzent; KRUPE, V.A., retsenzent; KULIK, M.S., otv. red.; YASNOGORODSKAYA, M.M., red.

[Agricultural meteorology] Agrometeorologiia. Leningrad, Gidrometeoizdat, 1964. 277 p. (MIRA 17:8)

ABRAMOVA, N.D., kand.med.nauk; GUREVICH, T.Z.; ROVINSKIY, V.I.

Prolonged ambulatory use of Rauwolfia preparations in hypertension. Sov. med. 25 no.2:103-105 F '62. (MIRA 15:3)

1. Iz dispansernogo otdela (zav. O.Ye. Morokhovets) TSentral'noy poliklini (dir. N.Ye. Yermolov) Ministerstva zdravookhraneniya RSFSR.

(RAUWOLFIA)
(HYPERTENSION)

GUREVICH, T.Z.; KARMAZIN, I.Ya.; FURSOVA, M.M. (Moskva)

Use of hypothiazide in polyclinical practice. Klin.med. 40 no.6:134-136 Je '62. (MIRA 15:9)

1. Iz dispansernogo otdela (zav. O.Ye. Morokhovets) TSentral'noy polikliniki pri Ob"yedinennoy tsentral'noy bol'nitse Ministerstva zdravookhraneniya RSFSR (glavnyy vrach N.I. Yermolov).
(THIADIAZINE)

GUREVICH, T.Z., kand.med. nauk (Moskva); KARMAZIN, I.Ya., kand.med.nauk (Moskva); ROVINSKIY, V.I. (Moskva)

Review of M. IA. Ar'ev's book "Cardiac asthma". Kaz. med. zhur. 4:82-83 Jl-Ag'63 (MIRA 17:2)

GUREVICH, T.Z.; SMIRNOVA, M.V. (Moskva)

Acute gastric hemorrhage due to hiatal hernia. Vrach. delo no.11:143-144 N'63 (MIRA 16:12)

1. Dispansernyy otdel (zav. - O.Ya. Morokhovets) TSentral'noy poliklinik Ministerstva zdravookhraneniya RSFSR.

GABINOV, L.A.; GUREVICH, T.Z.; KARMAZIN, I.Ya. (Moskva)

Some data concerning the working ability of persons with hypertension performing mental work. Sov. zdrav.22 no.6: 28-31'63. (MIRA 16:9)

1. Iz dispansernogo otdela (zav. O.Ye.Morokhovets) TSentral'noy poliklinik (glavnyy vrach N.I.Yermolov) Ministerstva zdravookhraneniya RSFSR.

(HYPERTENSION) (DISABILITY EVALUATION)

ABRAMOVA, N.D., kand. med. nauk; GOL'DBERG, A.F., kand. med. nauk; GUREVICH, T.Z., kand.med. nauk; OVODOVA, N.I., doktor.

Outcome of myocardial infarct and subsequent work ability in middle-aged and elderly persons engaged in mental work. Sovet. med. 26 no.5:23-26 My'63 (MIRA 17:1)

1. Iz dispansernogo otdela (zav. O.Ye. Morokhovets) TSentral'noy poliklinikи Ministerstva zdravookhraneniya RSFSR (dir. N.I. Yermolov).

GUREVICH, V., kand. tekhn. nauk

Calculation of foundation slabs for quays of angular profiles. Rech. transp. 24 no.7:38-40 '65. (MIRA 18:8)

1. Gosudarstvennyy institut proyektirovaniya i izyskaniya na rechnom transporte.

GUREVICH,V., kand.tekhn.nauk

Workers of the State Institute for Research and Planning in River Transportation are striving for technological progress. Rech. transp. 22 no.6:31-34 Je '63. (MIRA 16:9)
(Inland water transportation)

GUREVICH, V.

Conference of schools of higher education on new technology in the petroleum industry. Neftianik 1 no.11:32 N '56. (MLRA 9:12)
(Petroleum industry)

GUREVICH, V.A., inzh.; D'YAKONOV, N.G., inzh.; KALYAGIN, Yu.P., inzh.

Tie beam with tongs. Mekh. i avtom. proizv. 19 no.9:15 S '65.
(MIRA 18:9)

L 31791-66

ACC NR: AP6021658 SOURCE CODE: UR/0104/66/000/004/0096/0096

38
B

AUTHOR: Gurevich, V. A. (Engineer)

ORG: none

TITLE: Scientific and technical conference on exchanging experience in planning, construction and usage of substations without circuit breakers at 35-500 kv

SOURCE: Elektricheskiye stantsii, no. 4, 1966, 96

TOPIC TAGS: electronic conference, circuit breaker, electronic circuit, electric relay, industrial automation, industrial management

ABSTRACT: The conference was held in Moscow, December 1965. The participants at the conference included representatives of power systems, the electrical industry, and educational, scientific research and planning institutes. In recent years, substations without high-voltage-side circuit breakers have been increasingly employed, due primarily to economic considerations. This was the third conference on this subject. The goal of the conference was to show the current state of the problem, analyse the results at hand and note the direction of future development of such simplified substations. Reports were heard on: the selection of electrical connecting circuits for such stations; a proposed series of large-unit apparatus for use in such substations; increasing the quality of planning documentation to avoid reconstruction; relay protection, automation and telemechanics as applied to such substations; and other problems connected with the planning, construction and usage of these substations. [JPRS]

SUB CODE: 09, 05 / SUBM DATE: none

Card 1/1 LS

UDC: 621.311.4:621.316.1.002.22

GUREVICH, V.A., inzh.; KHOMYAKOV, M.V., inzh.

Nitric protection of insulating oil in power transformers.
Elek. sta. 36 no.12:54-61 D '65. (MIRA 18:12)

PANKOV, Vasiliy Nikiforovich; GUREVICH, V., redaktor; TYUNEYEV, A., tekhnicheskiy redaktor

[The party organization and the rise in stockbreeding] Partiinaia organizatsiia i pod"em zhivotnovodstva. Moskva, Gospolitizdat, 1956. 77 p. (MLRA 9:10)

1. Sekretar' Sovetskogo raykoma Kommunisticheskoy partii Sovetskogo Soyuza
(Stock and stockbreeding)

LARIONOV, Aleksey Nikolayevich; GUREVICH, V., red.; TROYANOVSKAYA, N., tekhn.red.

[Organizational work ensures success] Uspekh reshaet organizatorskaia rabota. Moskva, Gos.izd-vo polit.lit-ry, 1959. 94 p. (MIRA 12:8)

1. Sekretar' Ryazanskogo obkoma Kommunisticheskoy Partii Sovetskogo Soyuza (for Larionov).
(Ryazan Province--Agriculture)

GUREVICH, V., kand.tekhn.nauk

Using reinforced concrete in constructing transportation facilities of the Votkinsk Reservoir. Rech. transp. 19 no.4:29-32 Ap '60. (MIRA 14:3)

(Votkinsk Reservoir--Docks)
(Reinforced concrete construction)

SELYUTIN, V.; LESNIKOV, N.; RAYEVICH, V.; GUREVICH, V.; KRAVTSEV, A. (Bryansk); REVUNOV, M. (g. Ramenskoye, Moskovskoy oblasti); NAZAROV, P.; RYKOV, Yu.; MIN, A.; IGNATENKO, N.

Letters on various subjects. Mest. prom. i khud. promys. 3 no.8:30-31 Ag '62. (MIRA 15:10)

1. Starshiy inzhener Glavbelmostproma, g. Minsk (for Selyutin). 2. Glavnyy inzhener shveynogo kombinata "Pobeda", g. Ulan-Ude (for Gurevich).

(Industries)

SOV-128-58-7-15/20

AUTHORS: Migay, V.P., and Gurevich, V.A., Engineers

TITLE: Machining Allowances for Castings in the GDR.(Pripuski na mekhanicheskuyu obrabotku v GDR.)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 7, pp 28-29 (USSR)

ABSTRACT: The article gives information on machining allowances used in the German Democratic Republic for steel, cast iron, and light and heavy metal casting. There are 4 tables.

1. Machine shop practice--Standards 2. Metals--Machining

Card 1/1

GUREVICH, V.B., student

Examining marine chronometers of the First State Kirov Clock Plant. Trudy MIIGAIK no.33:93-97. '58. (MIRA 12:8)

1,Geodezicheskiy fakul'tet Moskovskogo instituta inzhenerov geodezii, aerofotos"yemki i kartografii.
(Chronometer)

GUREVICH, V.B., inzh.

Using Talcott's method to determine latitude. Trudy MIIGAIK no.49:83-90 '62. (MIRA 16:6)

(Latitude)

GUREVICH, V., inzhener.

Introducing continuous and rapid industrial methods of building water reservoirs. Mor.i rech.flot 13 no.7:21-23 N '53. (MLRA 6:11)
(Reservoirs)

GUREVICH,V.B., inzhener

Harbor quays built of precast reinforced concrete. Mech. transp 14 no.4:18-20 Ap '55. (MLRA 8:6)
(Precast concrete construction) (Wharves)

GUREVICH, V. B. Doc Cand Tech Sci -- (diss) "Principles of planning of rational types of harbor embankments ~~in~~ under conditions of water-reservoirs." Mos, 1957. 22 pp 4 sheets of charts 21 cm. (Min of Higher Education USSR. Moscow Order of Labor Red Banner ~~Building~~ Construction Enginneering Inst im V.V. Kuybyshev), 110 copies

(KL, 21-57, 101)

GUREVICH, V.B.

Results of studying the design of reinforced concrete elements for water reservoir embankments. Rech.transp. 16 no.2:21-27 F '57.
(MIRA 10:3)

(Reinforced concrete construction)
(Embanments)

GUREVICH, V.B.

Industrializing the building of mooring structures. Mech.transp. 16 no.5:24-29 My '57. (MLRA 10:5)
(Hydraulic engineering)

GUREVICH, V.B., inzhener.

Building shore protection features using reinforced concrete elements. Gidr.stroi. 26 no.6:8-11 Je '57. (MLRA 10:7)
(Shore protection)

GUREVICH, V.B., kand.tekhn.nauk

Mooring quays in the Ust'-Donets harbor. Transp. stroi. 8 no.13-16 O '58. (MIRA 11:11)
(Ust'-Donets--Piers)

GUREVICH, V.B., kand.tekhn.nauk

Studying some features of the foundations of prefabricated concrete gravity embankments built on reservoirs. Trudy TSNIIEVT no.15:97-137 '58. (MIRA 11:12)
(Embankments) (Foundations)

GUREVICH, V.B., kand. tekhn. nauk.

Experience in using precast reinforced concrete in hydraulic engineering construction. Mech. transp. 17 no.12:32-34 D '58. (MIRA 12:1)

(Precast concrete construction) (Hydraulic engineering)

SHANKIN, Petr Andreyevich; MIKHAYLOV, A.V., doktor tekhn. nauk, retsenzent; GUREVICH, V.B., kand. tekhn. nauk, red.; MAKRUSHINA, A.N., red. izd-va; BODROVA, V.A., tekhn. red.

[Design of the slope pavings of hydraulic structures] Raschet pokrytii otkosov gidrotekhnicheskikh sooruzhenii. Moskva, Izd-vo "Rechnoi transport," 1961. 292 p. (MIRA 14:10)
(Hydraulic structures)

GUREVICH, Vitaliy Borisovich, kand.tekhn.nauk; KAPELLO, I.A., inzh., retsenzent; RUMYANTSEV, B.M., red.; FEDYAYEVA, N.A., red.izd-va; REMNEVA, T.T., tekhn.red.

[Building hydraulic structures of precast reinforced concrete; calculations, analysis and execution of the operations] Stroitel'stvo gidrotekhnicheskikh sooruzhenii iz sbornogo zhelezobetona; raschety, issledovaniia i proizvodstvo rabot. Moskva, Izd-vo "Rechnoi transport," 1961. 296 p.

(MIRA 15:2)

(Hydraulic structures)
(Precast concrete construction)

ACCESSION NR: AP5010437 UR/0033/65/042/002/0437/0451

53

AUTHOR: Gurevich, V.B.

TITLE: Computation and accuracy of the selenocentric equatorial coordinates of stars

SOURCE: Astronomicheskiy zhurnal, v. 42, no. 2, 1965, 437-441

TOPIC TAGS: astrometry, selenocentric equatorial coordinate, moon, lunar libration, stellar coordinate

ABSTRACT: When astronomical observations are made from the moon, it will be necessary to use lunar time and the selenocentric equatorial coordinates of stars. The values of the parameter of forced physical libration f and the inclination I of the lunar equator to the ecliptic are not known precisely, and therefore the accuracy of present determinations of selenocentric coordinates is low. Great accuracy will not be required for approximate astronomical determination of the coordinates of points on the lunar surface in early observations, but greater accuracy will be required later. This greater accuracy can be obtained by a corresponding increase in the accuracy of f and I. This paper describes a program of observations to be made on the lunar surface for closer determination of these values. The transformation required is from the mean geo-equatorial coordinates of stars at a given equinox to the apparent selenocentric coordinates

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L 47293-65

ACCESSION NR: AP5010437

for a particular time. The author reviews the phenomena which must be taken into consideration in this process: precession of the vernal equinox, proper motion and annual parallax of stars, and the orbital motion of the components of double stars, as well as annual and monthly aberration. Monthly aberration is the most important of these and appropriate reduction formulas are derived. Also given is the derivation of formulas characterizing the accuracy of the selenocentric equatorial coordinates of stars, computed from their equatorial geocentric or ecliptic coordinates. As mentioned above, the accuracy is low. However, the proposed program for astrometric observations from the moon will lead to a radical increase in the accuracy of the values of f and I and make possible determinations of lunar free librations. Orig. art. has: 70 formulas, 4 figures, and 3 tables. [03]

ASSOCIATION: none

SUBMITTED: 16Sep64 ENCL: 00 SUB CODE: AA

NO REF SOV: 016 OTHER: 003 ATD PRESS: 3254

Card 2/2

GUREVICH, V.

Gourevitch, V. Sur certains cas de coïncidence du polynôme-minimum trigonométrique et des polynômes d'approximation quadratique et d'autres degrés. Bull. Acad. Sci. URSS Sér. Math. [Izvestia Akad. Nauk SSSR] 10,

max |f(x) − S_n(x)|. The [illegible] the present paper. Among others the following [illegible] proved. (1) If the points [illegible] succeed, then the minimizing polynomials S_n(x) [illegible] every [illegible]

Vol. 8, No. 5

GUREVICH, V. B.

"Differential Equations of Linear Type," Usp. Mat. Nauk, 7, No.1, pp 199-202, 1952

USSR/Mathematics - Textbooks Sep/Oct 52

"Criticism and Bibliography: Some More on N. V. Yefimov's Textbook 'Short Course of Analytical Geometry'," V. B. Gurevich

"Usp Matemat Nauk" Vol 7, No 5(51), pp 249-253

Present article was printed in the order of a discussion of textbooks on mathematics for colleges (higher technical schools). This discussion which started in the pages of the present journal represents an all-sided criticism of existing textbooks on mathematics for colleges, with the purpose of creating higher quality

242T83

textbooks. States that subject textbook of Yefimov "Kratkiykurs analiticheskoy geometrii") solves a number of problems in the teaching of analytical geometry in colleges.

242T83

GUREVICH, V.B.; KAPUSTINA, V.S., redaktor; VEDENEYEV, Ye.A., tekhnicheskiy redaktor

[Assignments for students of secondary correspondence schools; algebra and geometry. Class 6] Zadachi dlia uchashchikhsia zaochnoi srednei shkoly. Algebra i geometriia. VI klass. Sostavil V.B.Gurevich. Izd. 8-e. Moskva, Gos. uchebno-pedagog. izd-vo, 1954. 71 p. (MLRA 8:4)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye shkol.
(Algebra--Problems, exercises, etc.)
(Geometry--Problems, exercises, etc.)

GUREVICH, V.B.; LEPESHKINA, N.I., redaktor; RYBIN, I.V., tekhnicheskiy redaktor.

[Assignments for students taking secondary school correspondence courses; algebra and geometry. Class 7.] Zadaniia dlia uchashchikhsia zaochnoi srednei shkoly; algebra i geometriia. VII klass. Sostavil V.B.Gurevich. Izd. 8-e. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1954. 79 p. (MLRA 8:1)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye shkol.
(Algebra--Study and teaching) (Geometry--Study and teaching)

GUREVICH, Viktor Borisovich; MINORSKIY, Vasiliy Pavlovich; SHOSTAK, R.Ya., red.; SOLODKOV, V.K., red.; AKHLAMOV, S.N., tekhn.red.

[Textbook of analytical geometry for institutions of higher learning] Uchebnik analiticheskoi geometrii dlia vtuzov. Moskva, Gos. izd-vo fiziko-matematicheskoi lit-ry, 1958. 163 p. (Geometry, Analytical--Textbooks) (MIRA 12:1)

S/119/63/000/003/001/010
D201/D308

AUTHOR: Gurevich, V.E.

TITLE: An electronically controlled phase-shifter

PERIODICAL: Priborostroyeniye, no. 3, 1963, 4-7

TEXT: The author describes the principles of design and operation of a simple, electronically controlled phase-shifter, producing a phase shift of the output voltage with respect to the input, of up to 130° to 135° when a two-valve circuit is used and even more so when several valves are used. The phase shifter is non-linear, it operates at frequencies up to several hundred kilocycles. It is based on the well known dependence of the input dependence of a parallel voltage feedback amplifier on its gain. If the series impedance to the amplifier is made purely reactive and the parallel feedback impedance purely resistive, the output voltage will be shifted by a phase, depending on the ratio of the two and the range of the phase-shift will depend on the amplifier gain. The respective position of the two impedances may be reversed. The gain of

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the amplifier is changed by varying the operating point at the signal grid of a heptode valve constituting the first stage of amplification. Formulas for obtaining the maximum possible phase-shift and optimum values of relevant circuit components are derived and three variants of the practical phase-shifter circuit are given. There are 4 figures.

L 24455-65 EWT(1)/EWA(h) Peb ASD-3

ACCESSION NR: AP4043561 S/0146/64/007/004/0054/0058

AUTHOR: Gula, I.; Gurevich, V. E.

TITLE: Current-pulse shaper-amplifiers

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 4, 1964, 54-58

TOPIC TAGS: pulse shaping device, shaper, transistorized shaper amplifier, storage unit, memory unit, computer access time, pulse shaper, computer, computer memory

ABSTRACT: The article describes two variants of transistorized, current-pulse, shaper-amplifiers designed for use in a magnetic memory unit with access time of the order of 1 μsec. They provide current pulses with an amplitude of 0.5—0.6 a and a duration of 0.3 —0.8 μsec, whose repetition frequency may be arbitrarily varied from 0 to 1 Mc. Output pulse rise time is of the order of 0.1—0.12 μsec. Basic schematic diagrams of both the variants are shown in Figs. 1 and 2 of the Enclosure. Each contains 3 stages: an output stage using a P601 power transistor and two preamplifier stages using P402 transistors. A characteristic feature of both systems is that the output transistors operate within an active (amplifying) region of their current characteristics, without reaching saturation. The unsaturated mode was selected mainly to avoid the much larger input current (T3 base

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ACCESSION NR: AP4043561

current) which would be necessary for transistor saturation at the same load resistance and collector voltage. However, by operating the output stage in an unsaturated mode, the operating point position may vary with temperature, input signal amplitude, or on replacing the transistor. To stabilize the operating point, a nonlinear feed-back system through a D-219-type area junction microdiode (D_1 in Fig. 1) or D-11-type point-junction diode (in Fig. 2) is used. The variant shown in Fig. 2 is distinguished by a transformer (Tr_1) in the emitter circuit of triode T_2, by means of which the second and third stages can be better matched to each other, and good thermal stability obtained. Orig. art. has: 3 figures.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im V. I. Ul'yanova (Lenina) (Leningrad Institute of Electrical Engineering); Chelyabinskiy politekhnicheskiy institut (Chelyabinsk Polytechnical Institute)

SUBMITTED: 18Dec63 ENCL: 02 SUB CODE: EC

NO REF SOV: 002 OTHER: 000

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000617420016-4"

L 24455-65

ACCESSION NR: AP4043561

ENCLOSURE: 01

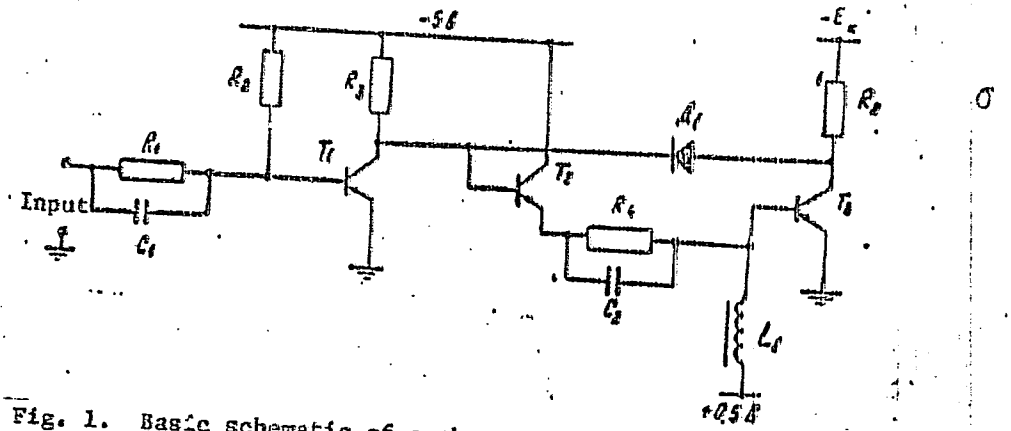

Fig. 1. Basic schematic of a shaper-amplifier (variant 1)

T_1,T_2 - P402; T_3 - P601; D_1 -D219; R_1 = 22 kohm; R_2 = 33 kohm; R_3 = 430 ohm; R_4 = 68 ohm (to be matched when tuning); C_1 = 47 pf; C_2 = 3000 pf (to be matched when tuning).

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ACCESSION NR: AP4043561

ENCLOSURE: 02

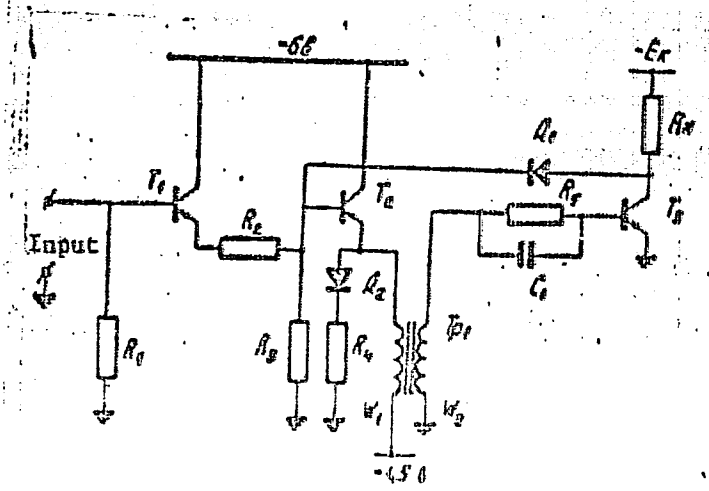

Fig. 2. Basic schematic of a shaper-amplifier (variant 2)

T_1,T_2 - P402; T_3 - P601; D_1 - D11; D_2 - D9 or D11; R_1 - 27 kohm; R_2 = 1 kohm; R_3 = 10 kohm; R_4 = 62 (to be matched when tuning); C_1 = 2700 pf (to be matched when tuning); Tr_1 - primary winding; W_1 = 30 loops, secondary W_2 = 15 loops on an F-2000 core; core dimensions D x d x h = 10 x 6 x 5 mm

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L 26700-66 EWT(1)/EWA(h)
ACC NR: AT5025639 SOURCE CODE: UR/2657/65/000/013/0213/0227

AUTHOR: Gurevich, V. E.

ORG: none

TITLE: Nonlinear feedback in a transistorized pulse-response stage

SOURCE: Poluprovodnikovyye pribory i ikh primeneniye; sbornik statey, no. 13, 1965, 213-227

TOPIC TAGS: electronic amplifier, transistorized amplifier, electronic feedback, electronic circuit, electric resistance

ABSTRACT: The efficiency of nonlinear feedback in a pulse-response amplifier is theoretically considered under these conditions: different proportions of feedback, collector-circuit, and input-circuit resistances; operation from ideal and real signal sources. It is found that: (1) Reduction of charge in the base of an open transistor under the influence of the nonlinear feedback is determined by these two factors: (a) diversion of a part of the collector current to the base circuit and (b) shunting of the input circuit by the feedback circuit and load resistance; (2) The feedback efficiency increases with the internal resistance R_s of the signal source; if $BR < R_s$,

Card 1/2 UDC: 621.375.13:621.382.3

L 26700-66

ACC NR: AT5025639 0

the increase in the input resistance further enhances the feedback efficiency; if $BR > R_S$, the feedback efficiency is depressed; here, B is the base current transfer factor and R is the load resistance; (3) If the feedback is turned on before or at the threshold of saturation, and $Br_f < R_{in}$ (where r_f is the feedback-circuit resistance and R_{in} is the input resistance), the transistor does not saturate, no matter how strong the input signal might be; (4) In low-load-resistance pulse amplifiers, the feedback circuit should preferably be connected via an emitter follower. Orig. art. has: 6 figures and 34 formulas.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 003

Card 2/2 BLG

GUREVICH, V.F.

Device for controlling and testing seismic apparatus. Trudy AzNII DN no.4:217-222 '56. (MIRA 14:4)
(Seismometers)

S/169/62/000/003/013/098
D228/D301

3,9300

AUTHORS: Gurevich, V. F. and Mamedov, P. Z.

TITLE: Determining the phase identity of piezoceramic seismic detectors employed in marine seismic surveying

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 20-21, abstract 3A173 (Azerb. neft. teserrufaty, Azerb. neft. kh-vo, no. 4, 1961, 8-10)

TEXT: A new type of piezoelectric pressure seismograph is described. This is made of polarized barium-titanate ceramics and has a sensitivity that is practically independent of the temperature in the interval 0 - 100°, a high mechanical strength, and highly stable electrical parameters. The seismograph consists of: 3-4 cylindrical detectors (summary capacity of 0.07 μf.), connected in parallel; a shunting resistance (180 kΩ); and a coordinating transformer (high-resistance winding inductivity of ~800 h., transformation coefficient of 10). These are placed in an oil-filled plastic hose which is joined to the seismic scythe. Formulas were derived from the ana-

Card 1/3

Determining the phase ...

lysis of the seismograph's equivalent scheme, and curves of the change in the complex inlet resistance and the phase angle between the voltage and the current in the frequency band 5 - 45 c/s were constructed. There is good agreement between the experimental and the calculated curves. The inlet resistance has an inductive and a capacitive character on frequencies that are respectively smaller and greater than the resonance frequency. At a resonance frequency of 22 c/s the resistance is purely active, and the phase difference amounts to 90°. The phase differences of seismographs can be measured by the method of Lissajous figures -- by means of the comparison of the seismograph under test with standards or with an equivalent active resistance. The calculated permissible frequency deviations are, for simplicity, converted into the dimensions of the small semiaxis of the Lissajous ellipse (a table is compiled for frequencies of 20 - 80 c/s). An estimate is made of the possible limits of the deviations in the seismograph's capacity and inductance for ensuring a phase identity of 0.001 sec. Highly coincident theoretical and experimental curves, from which it is possible to

Card 2/3

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D228/D301

Determining the phase ...

estimate the phase identity on a frequency of 30 c/s for groups of 1 - 5 seismographs at an inductance of 400 - 1200 h., were constructed. The phase identity of the set of pressure seismographs is determined by the parameters of the coordinating transformer. [Abstracter's note: Complete translation.]

Card 3/3

S/169/62/000/007/022/149
D228/D307

AUTHOR: Gurevich, V. F.

TITLE: Influence of the ohmic resistance of a seismic scythe's conduits on the sensitivity and the phase shifts of recording channels

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 21, abstract 7A138 (Sb. nauchno-tekhn. inform. Azerb. n.-i. in-t po dobyche nefti, no. 3 spets., 1961, 19-25)

TEXT: Curves of the dependence of the transmission and phase shift factor on the line's resistance were calculated on the basis of the equivalent circuit diagram: seismograph-line-amplifier entry point. The calculations were made for the entry point of a У-5-51Д (U-5-51D) amplifier with a primary inductance of 8 henries. It follows from the curves that the difference in the sensitivity of the first and the last devices will reach 30%, and that the phase shifts will be ~0.02 sec, when a 28-channel seismograph outfit with a spacing of 100 m of ПВР-0.35 (PVR-0.35) wire is used on a frequency of

Card 1/2

10 c/s. These magnitudes will be less for higher frequencies. In order to eliminate the line's resistance to the sensitivity and the phase shifts, it is recommended that low-resistance copper wires should be employed, that balancing resistances should be included, and also that input transformers with increased primary inductance should be used. [Abstracter's note: Complete translation.]

Card 2/2

GUREVICH, V.F.

Practice of employing radio in geodetic operations in offshore geophysical prospecting. Razved. i prom.geofiz. no.44:123-126 '62. (MIRA 15:7)

(Caspian Sea- Electric prospecting)

GUREVICH, V.F.; BRIKER, K.A.

Compensator for controlling electromagnetic interferences caused by electric transmission lines in seismic prospecting. Neftegaz. geol. i geofiz. no.3:39-40 '65. (MIRA 18:7)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche nefti.

(N) L 12043-66 EWT(1)/EWA(h) GW

ACC NR: AT5028868 SOURCE CODE: UR/2552/65/000/044/0049/0058

AUTHOR: Gurevich, V. F.

ORG: All-Union Scientific Research Institite of Geophysical Prospecting Methods, Moscow (Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki)

TITLE: Theoretical and experimental studies of marine seismic devices

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki. Prikladnaya geofizika, no. 44, 1965, 49-58

TOPIC TAGS: piezoelectric transducer, seismograph

ABSTRACT: The design and testing of two devices built in 1960-61 at the AzNII DN are described. One device is used for determining the static sensitivity of Rochelle-salt piezoelectric receivers; the sensitivity is calculated from the formula

$$\gamma = \frac{\Delta U}{\Delta p \cdot 1.23 \cdot 10^6},$$

where ΔU is the voltage pulse arising at pressure gradient Δp. The

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ACC NR: AT5028868

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second device records the frequency characteristics of piezoelectric receivers and of the piezoseismograph-amplifier input system, and is used to determine the phase identity of piezoseismographs. At the same time, the theoretical and experimental frequency characteristics of the piezoseismograph-amplifier input system are studied as functions of the number of piezoelectric receivers connected in parallel and as functions of the resistance shunting the primary winding of the matching transformer. In addition to the author, A. A. Bagirov, D. L. Tereshko, Z. B. Tagiyev, and N. V. Lobkova participated in the construction of the devices and in the investigations. Orig. art. has: 5 figures, 5 formulas.

SUB CODE: 08,17/ SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 001

GUREVICH, V. G. and N. P. PETROV

Extending the Service Life and Increasing the Wear Resistance of the Crankshaft Mechanism of a High-Speed Diesel.

Povsheniye iznosostoykosti i sroka sluzhby mashin. t. 2 (increasing the Wear Resistance and Extending the Service Life of Machines. v. 2) Diyev, Izd-vo AN UkrSSR, 1960. 290 p. 3,000 copies printed. (Series: Its: Trudy, t.2)

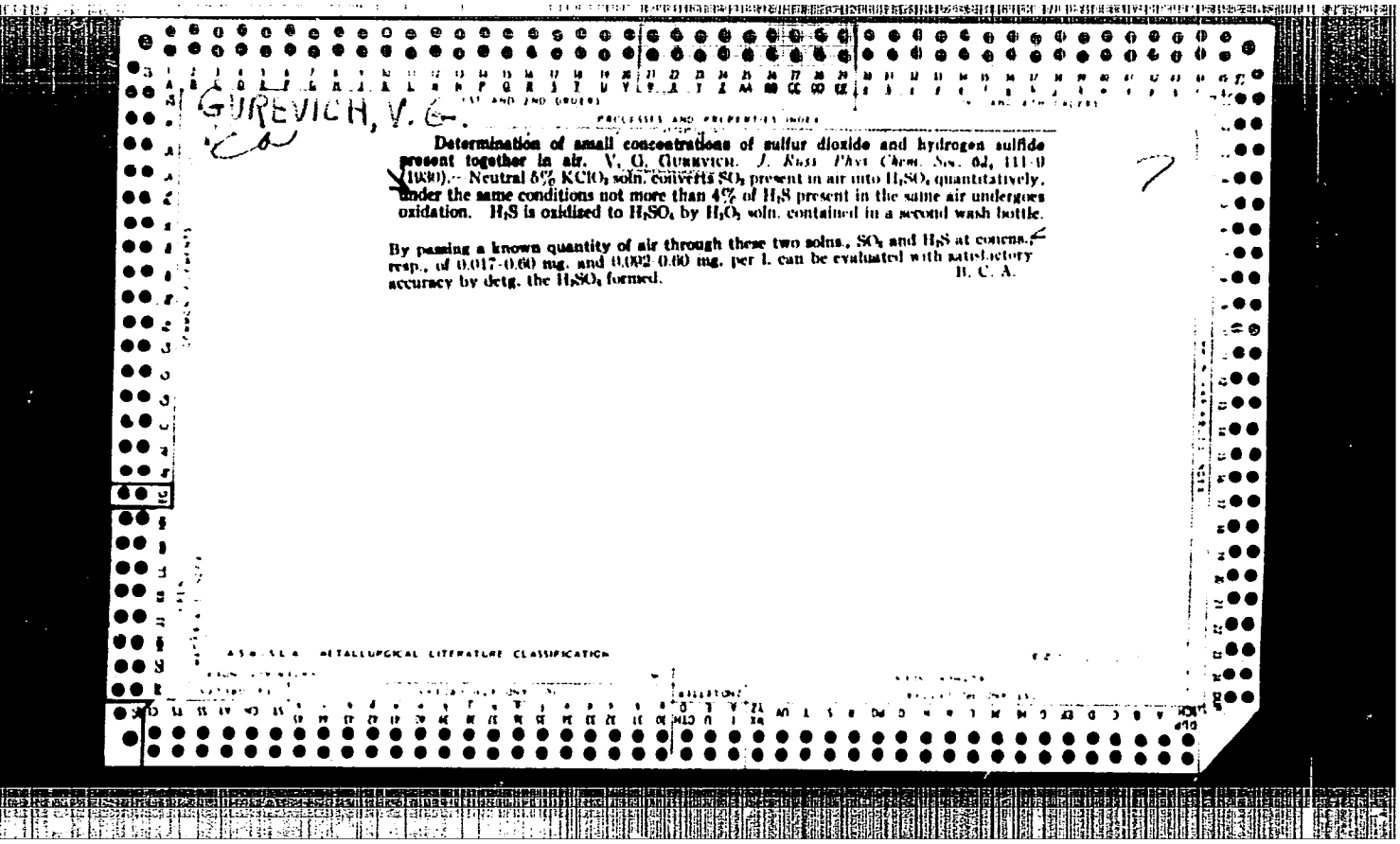
Sponsoring Agency: Vsesoyuznoye nauchno-tekhnicheskoye obshchestvo mashinostroitel' noy promyshlennosti. Tsentral'noye i Kiyevskoye oblastnoye pravleniya. Institut mekhaniki AN UkrSSR.

Editorial Board: Resp. Ed.: B. D. Grozin; Deputy Resp. Ed.: D. A. Draygor; M. P. Braun, I. D. Faynerman, I. V. Kragel 'skiy; Scientific Secretary: M. L. Barabash; Ed. of v. 2: Ya. A. Samokhvalov; Tech. Ed.: N. P. Rakhlina.

COVERAGE: The collection contains papers presented at the Third Scientific Technical Conference held in Kiyev in September 1957 on problems of increasing the wear resistance and extending the service life of machines. The conference was sponsored by the Institut stroitel'noy mekhaniki AN UkrSSR (Institute of Structural Mechanics of the Academy of Sciences Ukrainian SSR), and by the Kiyevskaya oblastnaya organizatsiya nauchno-tekhnicheskogo obshchestva mashinostroitel' noy promyshlennosti (Keyev Regional Organization of the Scientific Technical Society of the Machine-Building Industry).

MIKHAL'CHENKO, M.G.; BEZPALOV, V.D.; GUREVICH, V.G.; KISELEV, M.V., inzh., nauchnyy red.; REYZ, M.B., red.izd-va; PUL'KINA, Ye.A., tekhn. red.

[Sizing and dressing of sand for construction] Fraktsionirovanie i obogashchenie stroitel'nykh peskov. Leningrad, Gosstroiizdat, 1963. 87 p. (MIRA 16:4)
(Sand)



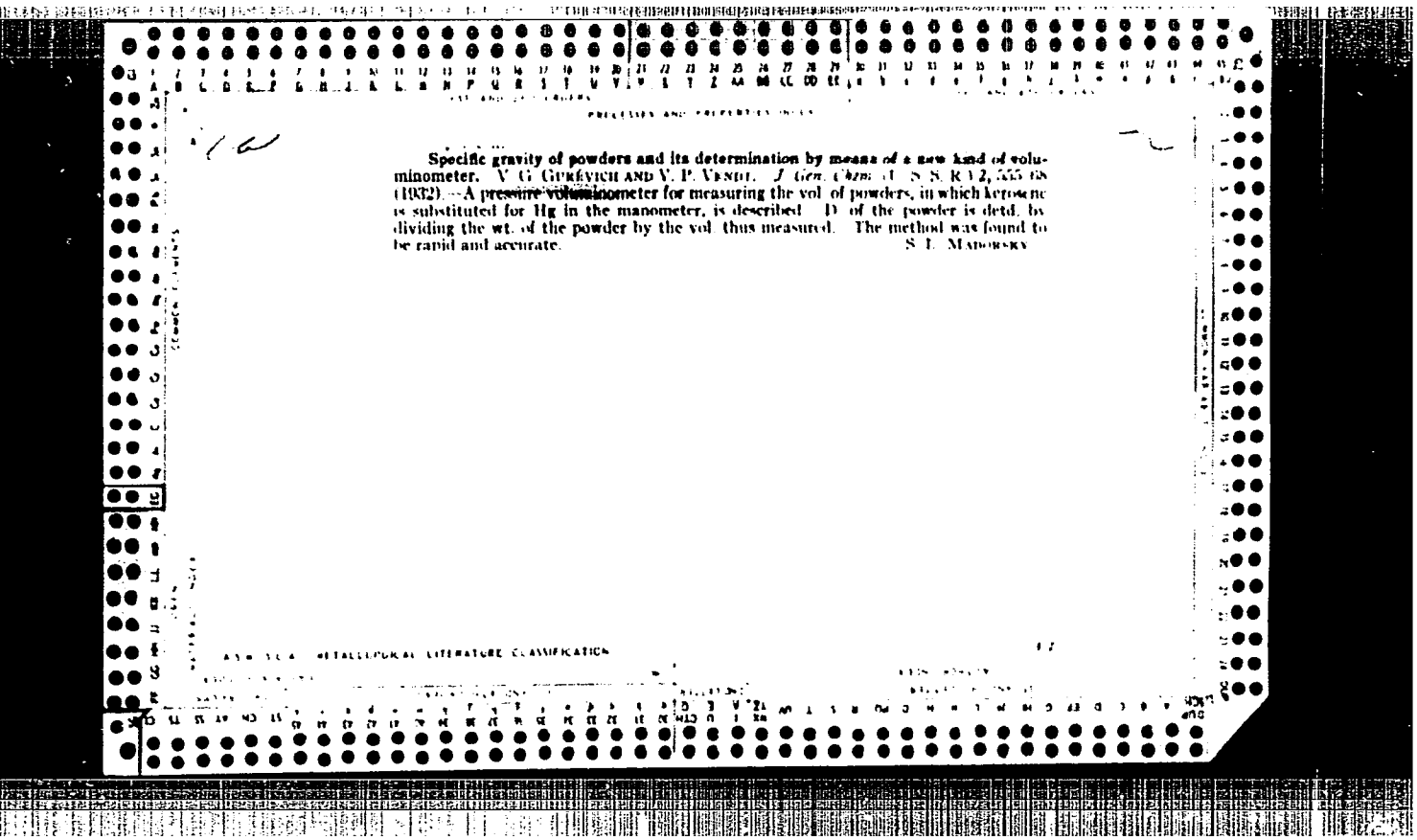
GUREVICH, V. G.

Determination of small concentrations of sulfur dioxide and hydrogen sulfide present together in air. V. G. Gurevich. *J. Russ. Phys. Chem. Soc.* 62, 111-9 (1930).— Neutral 5% $KClO_3$ soln. converts SO_2 present in air into H_2SO_4 quantitatively, under the same conditions not more than 4% of H_2S present in the same air undergoes oxidation. H_2S is oxidized to H_2SO_4 by H_2O_2 soln. contained in a second wash bottle.

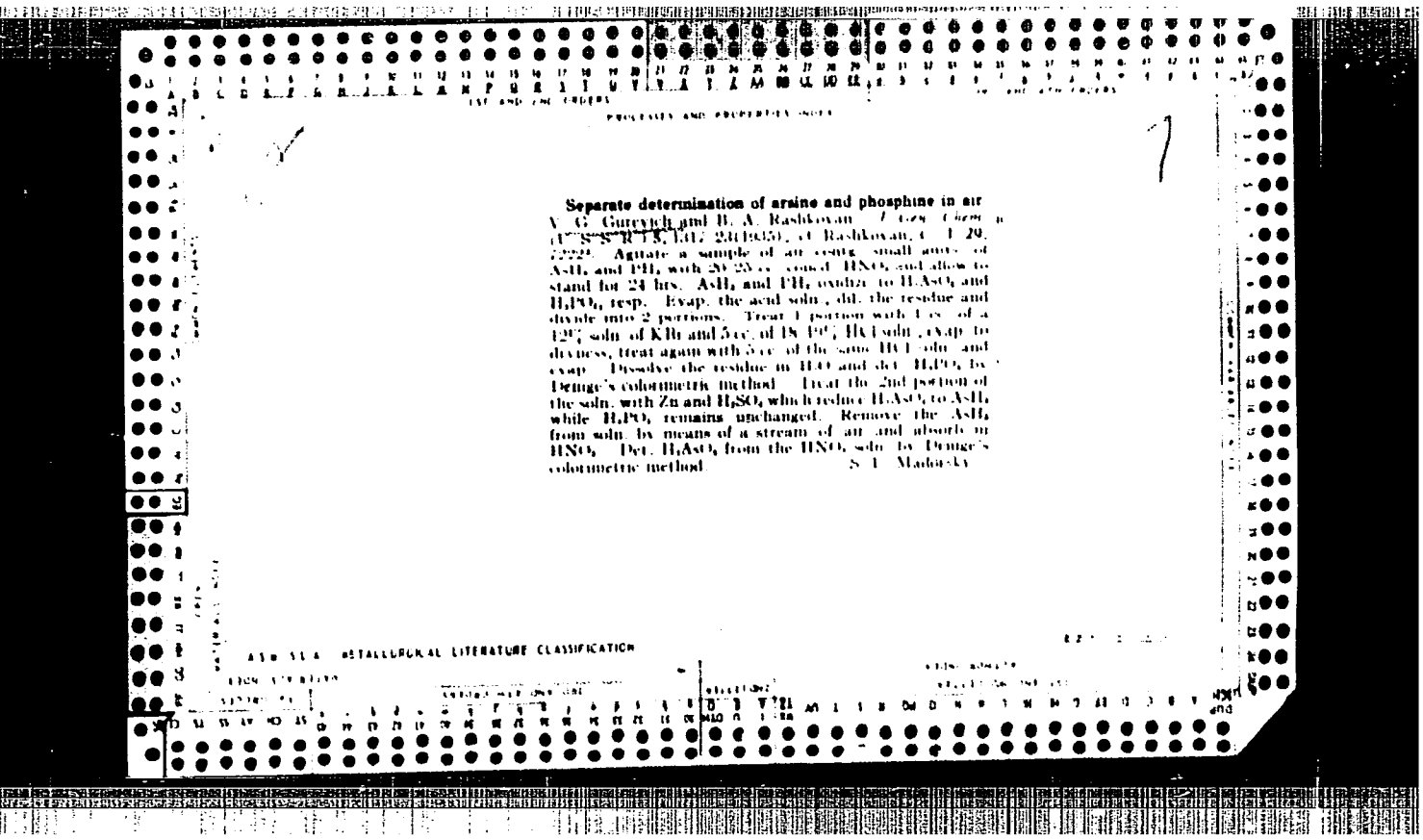
By passing a known quantity of air through these two solns., SO_2 and H_2S at concns., resp., of 0.017-0.60 mg. and 0.002-0.60 mg. per l. can be evaluated with satisfactory accuracy by detg. the H_2SO_4 formed.

B. C. A.

A 5 0 V L A METALLURGICAL LITERATURE CLASSIFICATION



Specific gravity of powders and its determination by means of a new kind of volu-minometer. V. G. Gurevich and V. P. Vendt. *J. Gen. Chem.* (U. S. S. R.) 2, 555-68 (1932).—A pressure volumenometer for measuring the vol. of powders, in which kerosene is substituted for Hg in the manometer, is described. D. of the powder is detd. by dividing the wt. of the powder by the vol. thus measured. The method was found to be rapid and accurate. S. L. Madorsky



Separate determination of arsine and phosphine in air

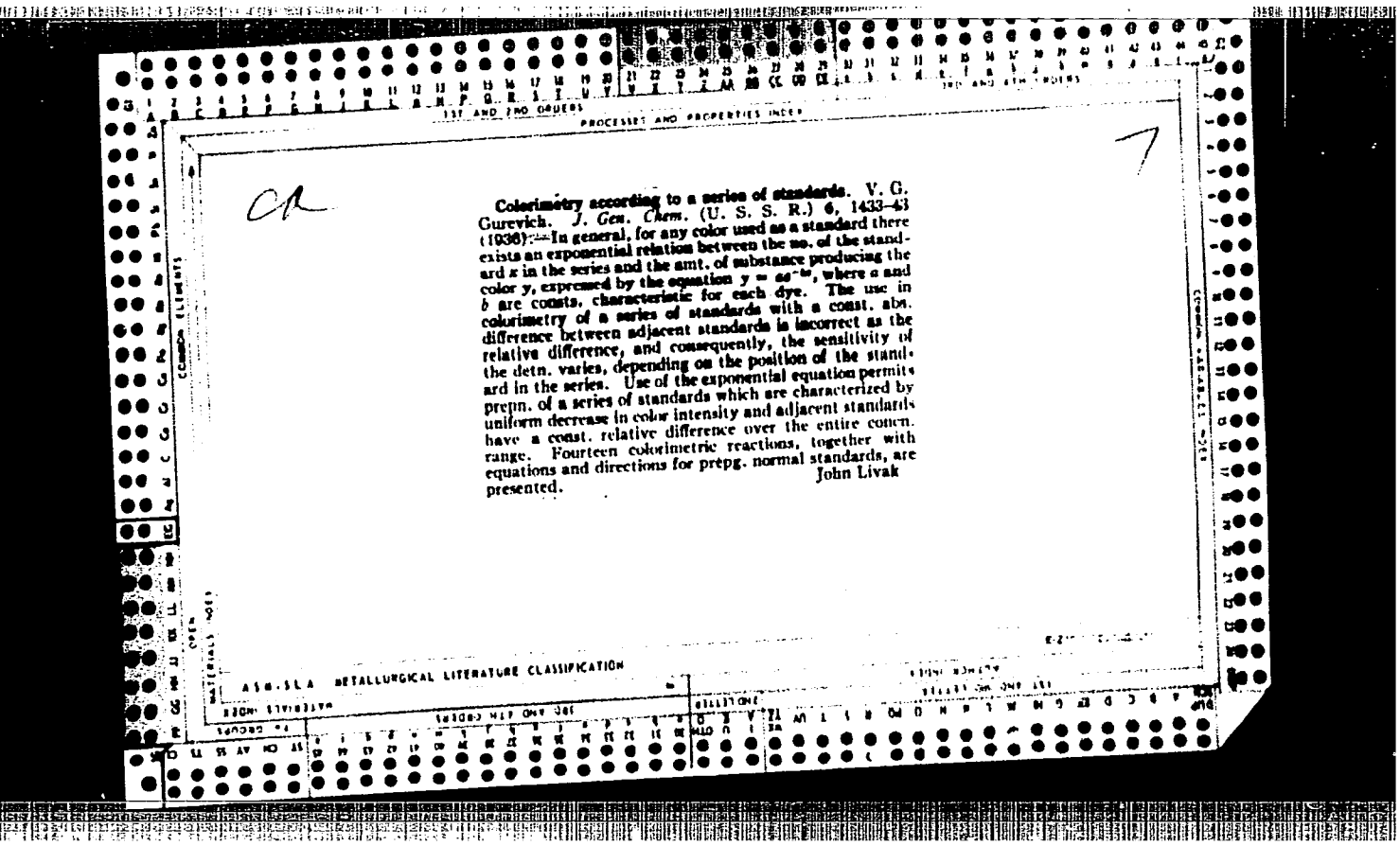
V. G. Gurevich and B. A. Rashkovan. *Gigiena i Sanitariya* (U.S.S.R.) 15, No. 7, 24 (1950). cf. Rashkovan, *C. A.* 1, 29, 7222. Agitate a sample of air containing small amounts of AsH_3 and PH_3 with 50–25 cc. concd. HNO_3, and allow to stand for 24 hrs. AsH_3 and PH_3 oxidize to H_3AsO_4 and H_3PO_4, resp. Evap. the acid soln., dil. the residue and divide into 2 portions. Treat 1 portion with 1 cc. of a 12% soln. of KBr and 5 cc. of 18.5% HCl soln., evap. to dryness, treat again with 5 cc. of the same HCl soln. and evap. Dissolve the residue in H_2O and det. H_3PO_4 by Denigè's colorimetric method. Treat the 2nd portion of the soln. with Zn and H_2SO_4, which reduce H_3AsO_4 to AsH_3, while H_3PO_4 remains unchanged. Remove the AsH_3 from soln. by means of a stream of air and absorb in HNO_3. Det. H_3AsO_4 from the HNO_3 soln. by Denigè's colorimetric method. S. I. Madorsky

A 5 0 1 A METALLURGICAL LITERATURE CLASSIFICATION

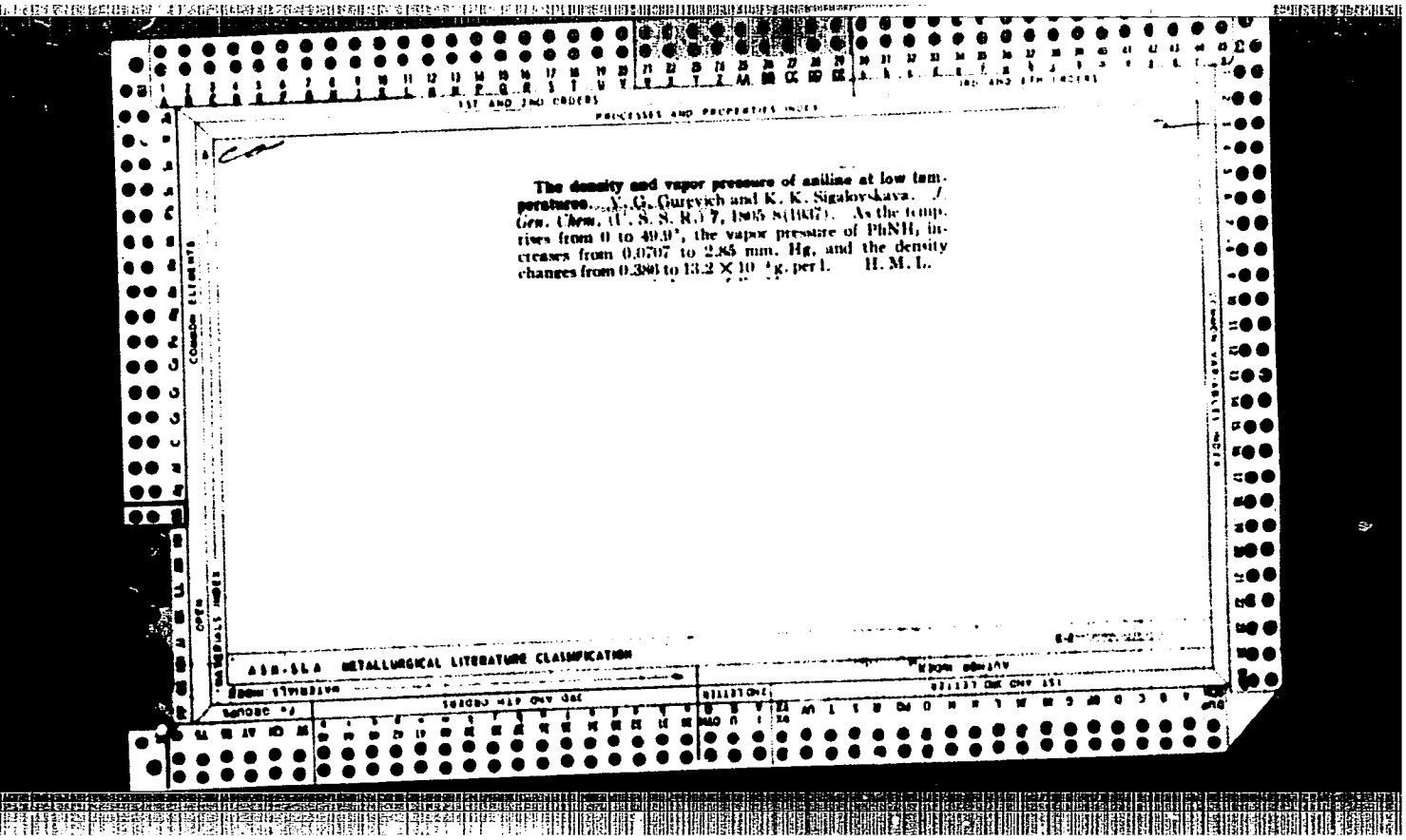
Gurevich, V.G.
~~GOUREVITCH, W. G.~~

"Dosage des concentrations minimes de l'anhydride sulfuroux et d'hydrogene sulfure dans l'air". Gourevitch, W. G. et Wendt, W. P. (p. 962)

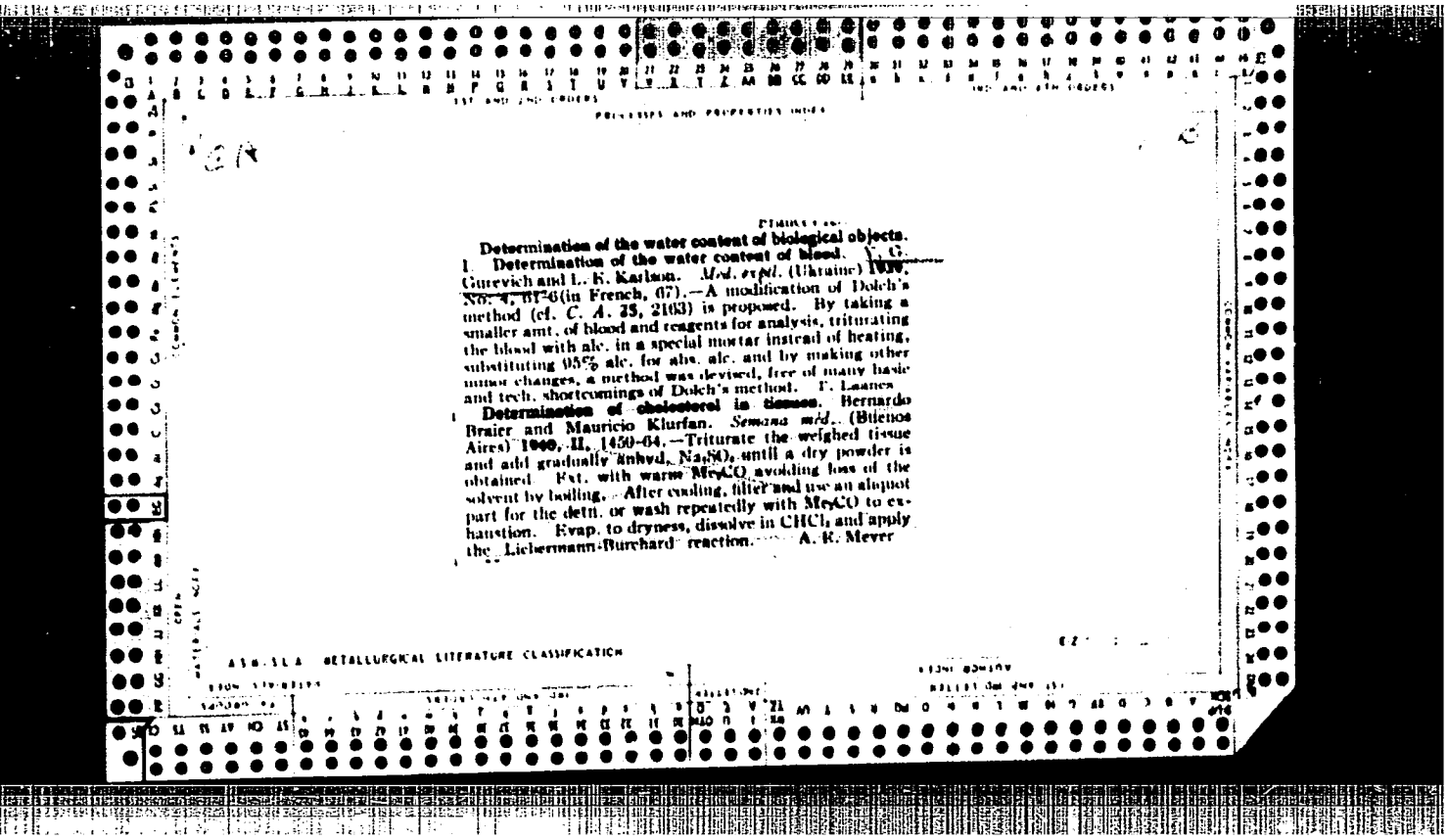
SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1936, Vol. 6, No. 7



Colorimetry according to a series of standards. V. G. Gurevich. *J. Gen. Chem.* (U. S. S. R.) 6, 1433–43 (1936).—In general, for any color used as a standard there exists an exponential relation between the no. of the standard x in the series and the amt. of substance producing the color y, expressed by the equation $y = ae^{-bx}$, where a and b are consts. characteristic for each dye. The use in colorimetry of a series of standards with a const. abs. difference between adjacent standards is incorrect as the relative difference, and consequently, the sensitivity of the detn. varies, depending on the position of the standard in the series. Use of the exponential equation permits prepn. of a series of standards which are characterized by uniform decrease in color intensity and adjacent standards have a const. relative difference over the entire concn. range. Fourteen colorimetric reactions, together with equations and directions for prepg. normal standards, are presented. John Livak



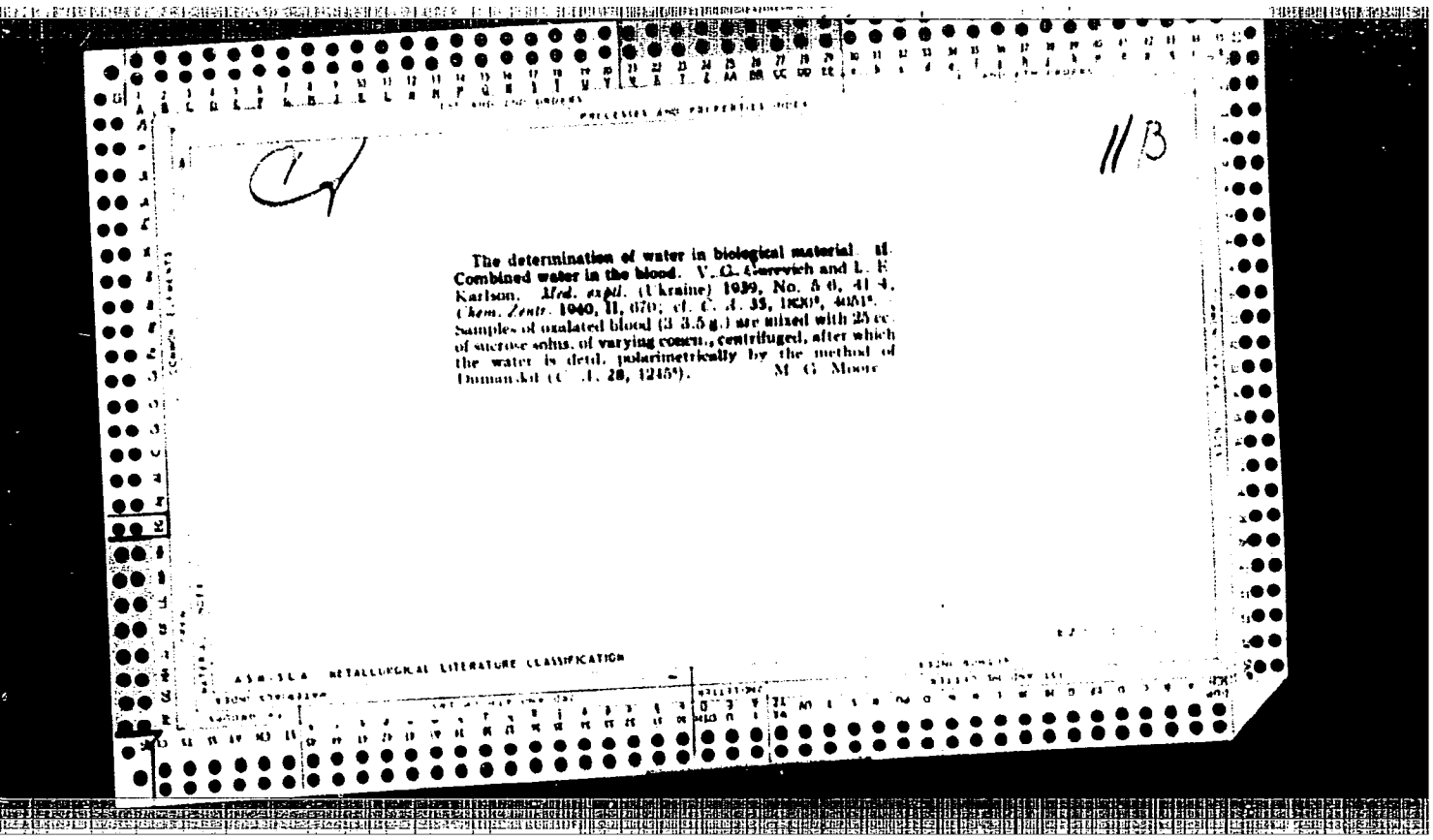
The density and vapor pressure of aniline at low temperatures. Y. G. Gurevich and K. K. Sigalovskaya. *J. Gen. Chem. (U. S. S. R.)* 7, 1905–8(1937). As the temp. rises from 0 to 40.9°, the vapor pressure of $PhNH_2$ increases from 0.0707 to 2.85 mm. Hg, and the density changes from 0.380 to 13.2 × 10⁻⁴ g. per l. H. M. L.



Determination of the water content of biological objects.

1. **Determination of the water content of blood.** V. G. Gurevich and L. E. Karlson. *Med. zvpd.* (Ukraine) **1939**, No. 4, 87-96 (in French, 97).—A modification of Dolch's method (cf. *C. A.* **35**, 2103) is proposed. By taking a smaller amt. of blood and reagents for analysis, triturating the blood with alc. in a special mortar instead of heating, substituting 95% alc. for abs. alc. and by making other minor changes, a method was devised, free of many basic and tech. shortcomings of Dolch's method. F. Laanes

Determination of cholesterol in tissues. Bernardo Braier and Mauricio Klurfan. *Semana méd.* (Buenos Aires) **1940**, II, 1450-64.—Triturate the weighed tissue and add gradually anhyd. Na_2SO_4 until a dry powder is obtained. Ext. with warm Me_2CO avoiding loss of the solvent by boiling. After cooling, filter and use an aliquot part for the detn. or wash repeatedly with Me_2CO to exhaustion. Evap. to dryness, dissolve in $CHCl_3$ and apply the Liebermann-Burchard reaction. A. R. Meyer



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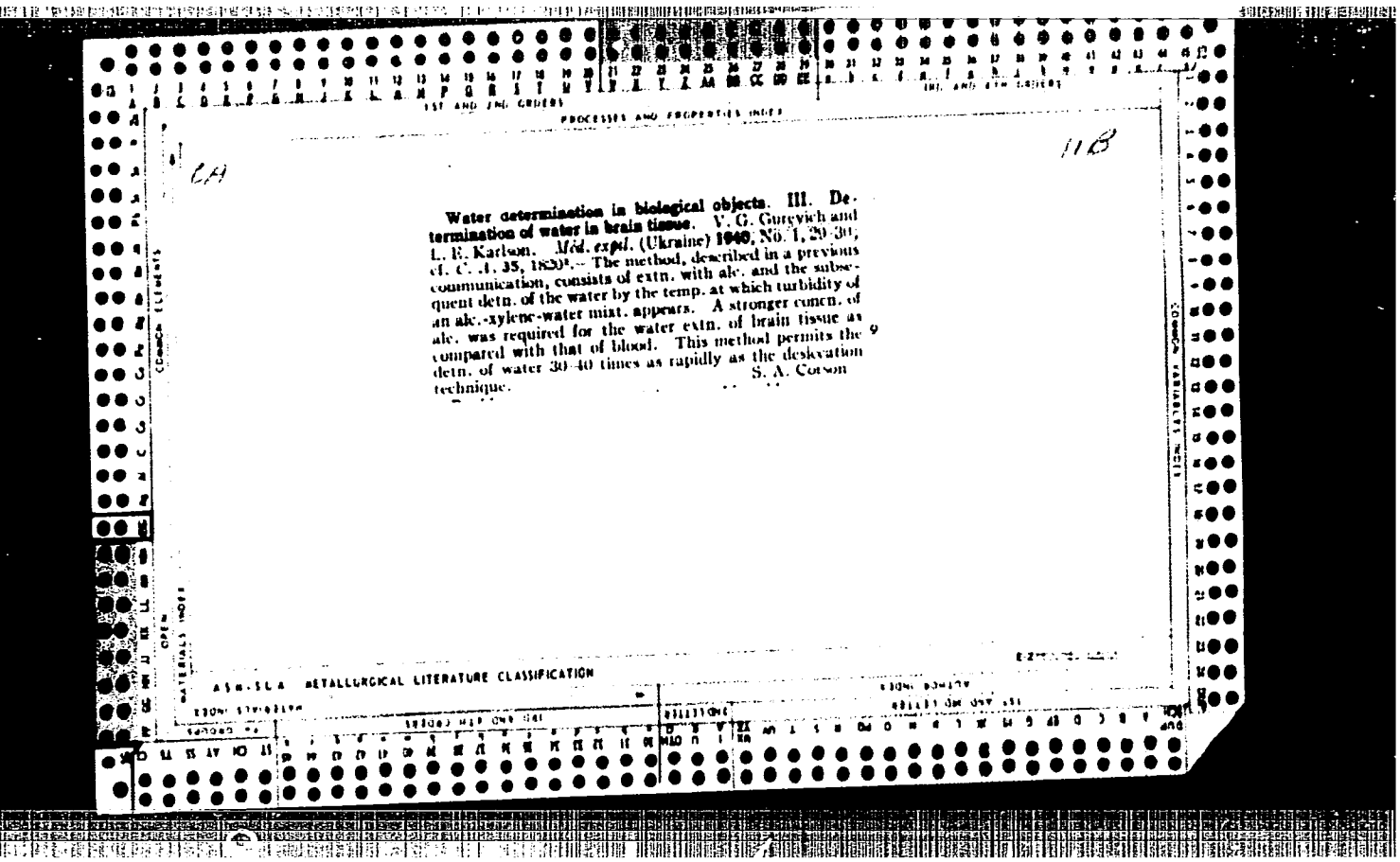
The determination of water in biological material. III. Combined water in the blood. V. G. Gurevich and L. E. Karlson. *Med. zapil.* (Ukraine) 1939, No. 5-6, 41-4; *Chem. Zents.* 1940, II, 670; cf. C. A. 33, 1820[9], 4051[8]. Samples of oxalated blood (3-3.5 g.) are mixed with 25 cc. of sucrose solns. of varying concn., centrifuged, after which the water is detd. polarimetrically by the method of Dumanskii (C. A. 28, 1245[8]). M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GURVICH, V. G.

"The Density and Tension of a Vapor at Low Temperatures", Part II "Nitrobenzene", Zhur. Obshch. Khim., 9, No. 14, 1939. Physico-Chemical Laboratory, Ukrainian Central Institute of Labor Hygiene and Occupational Diseases, Khar'kov. Rec'd 26 Dec 1938.

Report U-1614, 3 Jan 1952.



CA

11B

Water determination in biological objects. III. Determination of water in brain tissue. V. G. Gurgvich and L. E. Karlson. *Med. exptl.* (Ukraine) **1940**, No. 1, 29–30; cf. C. A. 35, 1859⁹.— The method, described in a previous communication, consists of extn. with alc. and the subsequent detn. of the water by the temp. at which turbidity of an alc.-xylene-water mixt. appears. A stronger concn. of alc. was required for the water extn. of brain tissue as compared with that of blood. This method permits the detn. of water 30–40 times as rapidly as the desiccation technique. S. A. Corson

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