The Problem of Considering Multiple Internal Reflections When Investigating Complicated Transmission Lines With SHF Instruments

of the reflection factors of two and more non-uniformities in a super-high-frequency signal transmission line. There are 4 block diagrams and 1 set of vector diagrams.

87958

S/115/60/000/012/010/018
B021/B058

9.1400

AUTHOR: Palatov, K. I.

TITLE: Measurement of the Coefficient of Reflection From the Inhomogeneities of a Composite SHF Transmitting Line

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 12, pp. 36-37

TEXT: The author has previously given a general method of detecting the inner reflexes in composite SHF transmitting lines (Ref. 1). In this paper he shows its utilization for measuring the coefficients of reflection from two successive inhomogeneities. The system of the first and second reflecting inhomogeneity is represented by a simulating equivalent circuit and is formulated mathematically. The spread of the true value of the coefficient of reflection as a function of the phase angles β and γ is illustrated in Fig. 2. The block diagram of a practical measuring device for the separate determination of the coefficients of reflection of two successive inhomogeneities in SHF transmitting lines is shown in Fig. 3. Well coordinated dielectric inserts which are connected between the investigated inhomogeneities in the transmitting line, are often used as

Card 1/2

20074

S/ 28/61/016/003/006/006
B' 6/B205

9,2570 (and 2503)

AUTHOR: Palagin, K. I. Member of the Scientific and Technical Society for Radio Engineering and Electrocommunication

TITLE: Sensitivity of circuits during the direct amplification in the superhigh frequency range

PERIODICAL: Radiotekhnika, v. 16, no. 3, 1961, 75-80

TEXT: In the present paper the author describes the sensitivity of direct amplification circuits in the superhigh frequency range by taking account of the effect of the noise factor, the amplification factor of the high-frequency block, the parameters of the square-law detector, the high-frequency passband, the video frequency passband, the pulse duration and the recurrence frequency of the pulse signals. The formulas for the sensitivity of the two types are derived. They are intended for engineering calculations. The author gives calculation examples and interprets the effect of the individual parameters. The results obtained can be used for calculating the sensitivity in the case of pulse signals as well as in the case of modulated oscillations. The sensitivity of

Card 1/5

20074

S/ [illegible] / [illegible]
B1 [illegible] /B205

Sensitivity of [illegible] measuring [illegible]

the receiver [illegible] high-frequency signal power at the receiver input in which the signal to noise ratio [illegible] is equal to one. In this case the following expression holds: $P_{SE} = kT \Delta f K_R$ (1)

P_{SE} is the high-frequency signal power at the receiver input, $kT \Delta f$ is the power of noise at the input [illegible] of the receiver (which is turned by means of the signal [illegible], K_R is the noise factor of the receiver.

Additional noise occurs in a joint passage of the signal and the noise through a nonlinear detector. Since it is difficult to take account of the noise in this interaction, it is omitted in practice. The author describes a method which permits the solution of this problem. In this case an arbitrary [illegible] with a sum of a sufficiently large number of components with discrete frequencies. Thus, this problem can be solved also for the transmission of signals which are amplitude-modulated by rectangular pulses. It is assumed that the detector characteristics can be approximated by [illegible] (2). At the instant [illegible] in the input voltage at the detector, [illegible] the sum of the voltage U_S of the signal and U_R of the noise. The U_S and U_R which are phase-modulated by pulses are

Card 2/5

Sensitivity of circuits measuring...

expanded into Fourier series and introduced into (5)

$$i = b\left\{\sum_{j=1}^{n} U_{wj}\cos(2\pi f_j t + \psi_j) + \sum_{j=1}^{k} U_{cj}\cos\left(2\pi f_0 + \frac{2\pi}{T} j\right)t\right\}^2. \qquad (6)$$

The indices c and w denote the signal and the noise, respectively.

$n = \frac{\Delta f_R}{\delta f}$ is an arbitrarily large number of averaged noise components (into which the continuous spectrum is split), Δf_R is the width of the noise passband in the approximation of the noise spectrum by means of a rectangle. δ_R is the arbitrarily small frequency band of a spectral noise component. U_{wj}, f_j, ψ_j is the amplitude, the frequence, and the phase, respectively, of the j-th noise component. k is the number of the spectral single components in the band Δf; f_o is the carrier frequency, 1/T is the pulse repetition frequency, U_{cj} is the amplitude of the spectral signal component. The graphical representation corresponding to formula (6) is shown in the

Card 3/5

S/109/61/016/001/006/[illegible]
B116/B205

Sensitivity of circuits measuring...

Figure. The author then deduces formula

$$K_{yш} = \frac{I_ш}{I_{шш}} = \sqrt{1 + \frac{\frac{\Delta F}{\Delta f}\left(\frac{2\tau}{T}\right)^2 \left|1 + \sqrt{1 + \left(\frac{T}{2\tau}\right)^2 \left(\frac{2\Delta f}{\Delta F} - 1\right)}\right|}{1 - \frac{\Delta f}{2\Delta f}}}. \quad (18)$$

for the coefficient $K_{yш}$ which characterizes the amplifier gain of the noise when it passes, together with a pulse-modulated signal, through a square-law detector. $I_ш$ is the total noise current, $I_{шш}$ is the additional noise current, ΔF is the width of the passband for the video amplifier frequencies, Δf is the width of the passband for high-frequencies. For the analysis of formula (18) two concrete cases are studied: the case of a pulse modulation of a "meander" signal ($2\tau/T = 1$, where τ is the pulse duration) and the case of a nonmodulated signal ($\tau/T = 0$). It is demonstrated that in most cases the amplification of noise as a result of the interaction between signal and noise passing through a square-law detector, can be neglected. For the sensitivity P_{SE} the formula

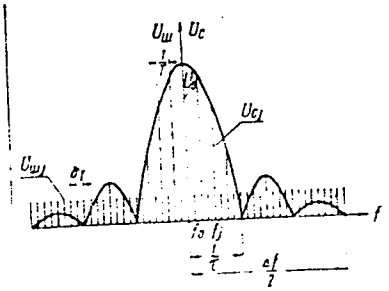
$$P_{SE} = kT\sqrt{2\Delta F \Delta f}\, K_{RHF} \quad (22)$$

Card 4/5

Sensitivity of circuits measuring...

is obtained. K_{REF} is the noise factor of the high-frequency block. By means of formula (7) the sensitivity of receivers with wideband amplifiers (of the travelling-wave type) can be determined easily and with sufficient accuracy. There are 1 figure and 6 Soviet-bloc references.

SUBMITTED: April 18, 1960 (initially)
September [illegible], 1960 (after revision)



Card 5/5

PALATOV, K.I., kand.tekhn.nauk

At the scientific congress in Leipzig. Vest.AN SSSR 35 no.6:96 Je '65. (MIRA 18:8)

VALITOV, Rafkat Amirkhanovich; PALATOV, Konstantin Ivanovich; CHERNYY, Arkadiy Yevelevich; TRET'YAKOVA, A.N., red.; SMILYANSKAYA, T.M., tekhn. red.

[Methods for measuring the principal characteristics of fluctuating signals] Metody izmereniia osnovnykh kharakteristik fluktuatsionnykh signalov. Pod red. R.A.Valitova. Khar'kov, Izd-vo Khar'kovskogo gos. univ. im. A.M.Gor'kogo, 1961. 140 p. (MIRA 15:4)

(Radio measurements) (Radio--Testing)

ROMZEVICH, I.T.; PALATOV, P.A.

Blasting charges with air spaces [illegible]
Mine. Gor.zhur. no.10.39-41 [illegible]

1. Zamestitel' glavnogo inzhenera shakhty im. Gubkina Gosudarstvennogo gornorudnogo kombinata Kurskoy magnitnoy anomalii (for Romzevich). 2. Nachal'nik burovzryvnykh rabot shakhty im. Gubkina Gosudarstvennogo gornorudnogo kombinata Kurskoy magnitnoy anomalii (for Palatov).

PALATOV, YA.N.

PALATOV, Ya.N.

Increasing the life of picking stick yoke strap. Tekst.prom. 14 no.6:50 Je '54. (MLRA 7:7)

1. Slesar' Perganskogo tekstil'nogo kombinata im. Dzerzhinskogo.
(Looms)

PALATOVSKIY, P.

Volunteer firemen visit apartment houses. Pozh.delo 7 no.11:11 N '61. (MIRA 14:11)

1. Zamestitel' nachal'nika Upravleniya vnutrennikh del Krasnodarskogo kraya.
(Krasnodar Territory--Fire prevention--Societies)

PALATY, J., inz., CSc.; SLADECEK, V., doc., dr., CSc.

Symposium on methods of determining some organic substances.
Vodni hosp 14 no. 1:8 '64.

PALATY, J.

"Examination of water." Reviewed by J. Palaty. Chem listy 58 no. 2:244-245 F '64.

Czechoslovakia /Chemical Technology. Chemical Products [illegible]
and Their Application.
Water treatment. Sewage water.

Abs Jour: Referat Zhur - Khimiya, No 1, 1958, 1780

Author : Palaty J., Ruzicka S.

Title : Experiments on Purification of Cyanide-Containing Sewage Water

Orig Pub: Voda, 1956, 35, No 9, 287

Abstract: Account of the results of laboratory experiments on utilization of brown coal cinders. Diluted, spent plating solutions were filtered through a cinder filter (25 cm in diameter, 66 cm deep, volume 32.5 liters). With a load of 1.2-1.7 g CN^- per 1 m^3 of cinders per hour the concentration of CN^- in the sewage water was lowered by 94%. Blowing with air at a rate of 0.7 m^3/hour

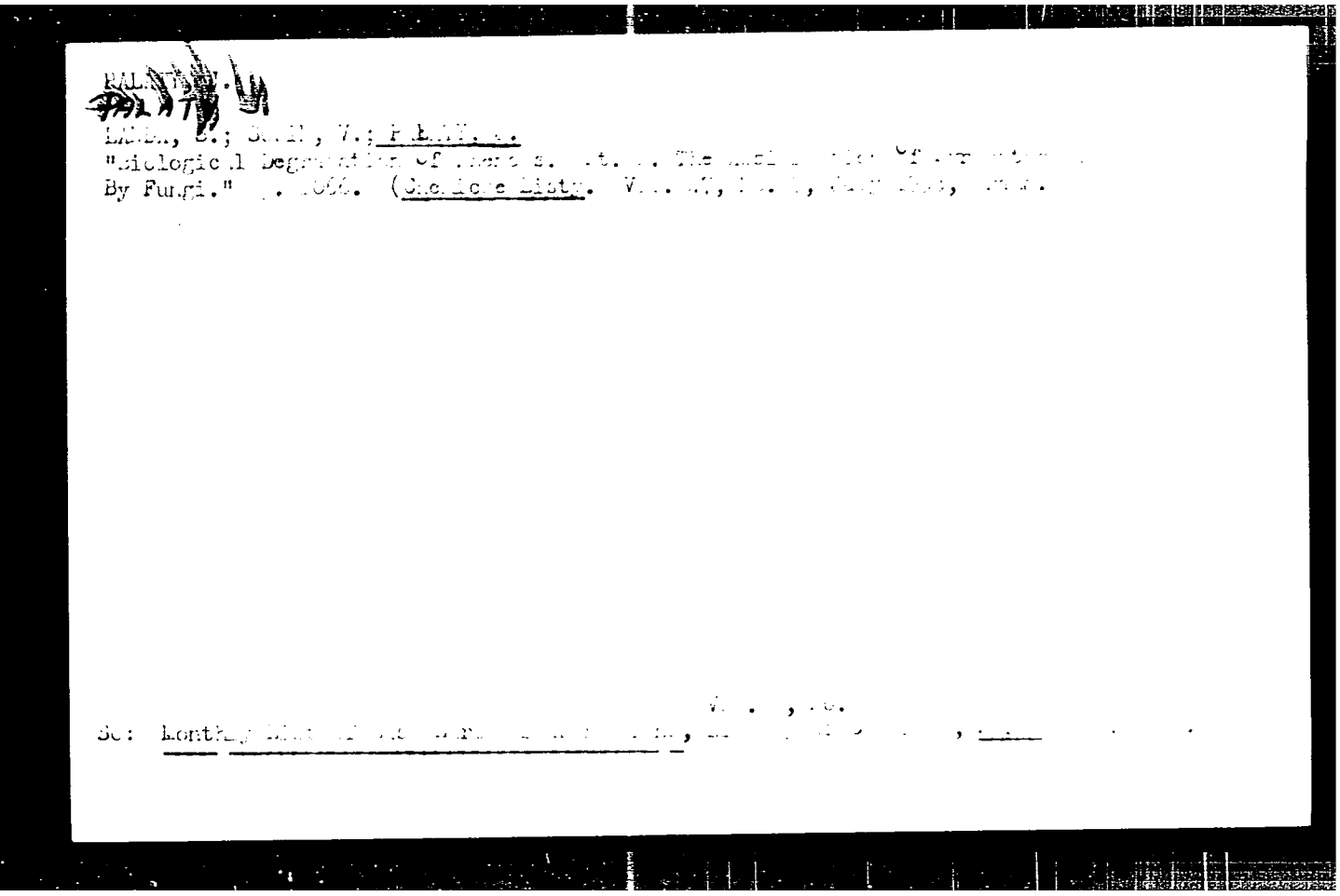
Card 1/2

Czechoslovakia /Chemical Technology. Chemical Products H-5
and Their Application
Water treatment. Sewage w ter.

Abs Jour: Referat Zhur - Khimiya, No 1, 1958, 1789

increases the purification efficacy. Absorption of CN^- by the cinders reaches 0.041% of the weight of the cinders.

Card 2/2



PALATY, JIRI.

Chemical Abst.
Vol. 48
Apr. 10, 1954
Biological Chemistry

Biological degradation of phenols. II. Assimilation of pyrocatechol by molds. Stanislav Landa, Václav Šolín, and Jiří Palatý (Vysoká škola chem., Prague, Czech.). *Chem. Listy* 47, 1066–70(1953); cf. *C.A.* 48, 3445e.— Surface-cultivated *Penicillium* and submerged cultures of *Oospora* assimilate pyrocatechol (I). More than 14% of *cis,cis*-muconic acid has been isolated, the amt. and rate of formation being dependent on the age of the culture, acidity, and the concn. of I. *Oospora* assimilates I faster than *Penicillium*, and may stop the growth of *Penicillium* if both are present in the same soln. of I. Ca salts decrease and Mg salt increases the degradation of I. Fe salts do not influence the yields of muconic acid. The degradation of I with molds is slower but more general than with bacteria. The acidity of solns. caused by muconic acid increases the speed of degradation. Degradation of monobasic phenols with molds requires aeration; I is degraded even without aeration.
M. Hudlický

PALATY, Jiri

Biological purification of generator waste waters using oospore. (EEAI 9:4)
Sbor.pal.vod. VSChT 1958:259-282.

1. Katedra technologie vody, Vysoka skola chemicko-technologicka, Praha.
(Water) (Cospora)

PALATY, Jiri; HORAKOVA-JAKUBU, Marta

The course and the rate of volatization of cyanides from water under natural conditions. Sbor pal vod VSChT no.3, part 1:83-114 '59.

1. Katedra technologie vody Vysoke skoly chemicko-technologicke, Praha.

PALATY, Jiri; DEYLOVA, Libuse

The interference of some substances with the determination of phenols by means of 4-amino-antipyrine and dimethyl-p-phenylenediamine.
Sbor pal vod VSChT 4 no.1:251-258 '60.
(EEAI 10:9)

1. Katedra chemicke technologie vody, Vysoka skola chemicko-technologicka, Praha.

(Phenols) (Dimethylphenylenediamine)
(Aminoantipyrine)

PALATY, Jiri; STANEK, Miloslav

Chlorination of cyanide effluents by injection into chlorinator. Sbor pal vod VSChT no.3, part 1:115-127 '59.

1. Katedra technologie vody Vysoke skoly chemicko-technologicke, Praha.

PALATY, Jiri

Colorimetric determination of cyanides. Sbor pal vod VSChT 4 no.1: 259-267 '60. (EEAI 10:9)

1. Katedra chemicke technologie vody, Vysoka skola chemicko-technologicka, Praha.

(Colorimetry) (Cyanides)

PALATY, V.

Thermodynamic basis for the theory of the membrane potential.
Cesk. fysiol. 13 no.5:461-468 O '64.

1. Fysiologicky ustav Ceskoslovenskej akademie ved, Praha.

PALATY, Vladimir

Determination of sulfate ions. Sbor pal vod VSChT no.3, part 1:55-67 '59.

1. Katedra tepelne techniky a strojirenstvi Vysoke skoly chemicko-technologicke, Praha.

PALATY, Vladimir

Determination of sulphate. II. Sbor pal vod VSChT 4 no.1:199-206 '60. (EEAI 10:9)

1. Department of Power Engineering, Faculty of Technology of Fuel and Water, Institute of Chemical Technology, Prague.

(Sulfates)

PALATYUK, A.V., inzh.

Assembly and installation of the support of the conical cable dumper. Shakht.stroi. 6 no.11:25-26 N '62. (MIRA 15:12)

1. Trest Soyuzshakhtospetsmontazh.
(Hoisting machinery)

L 50768-65 EPA(s)-2/EPA(w)-2/EWT(l)/EEC(t)/EWP(l)/EWP(b)/EWP(e) Pl-4/Pab-10/
Pt-7 IJP(c) GG/WH

ACCESSION NR: AP5010663 CZ/0013/65/000/004/0139/0142

AUTHOR: Palatzky, A. (Graduate chemist)

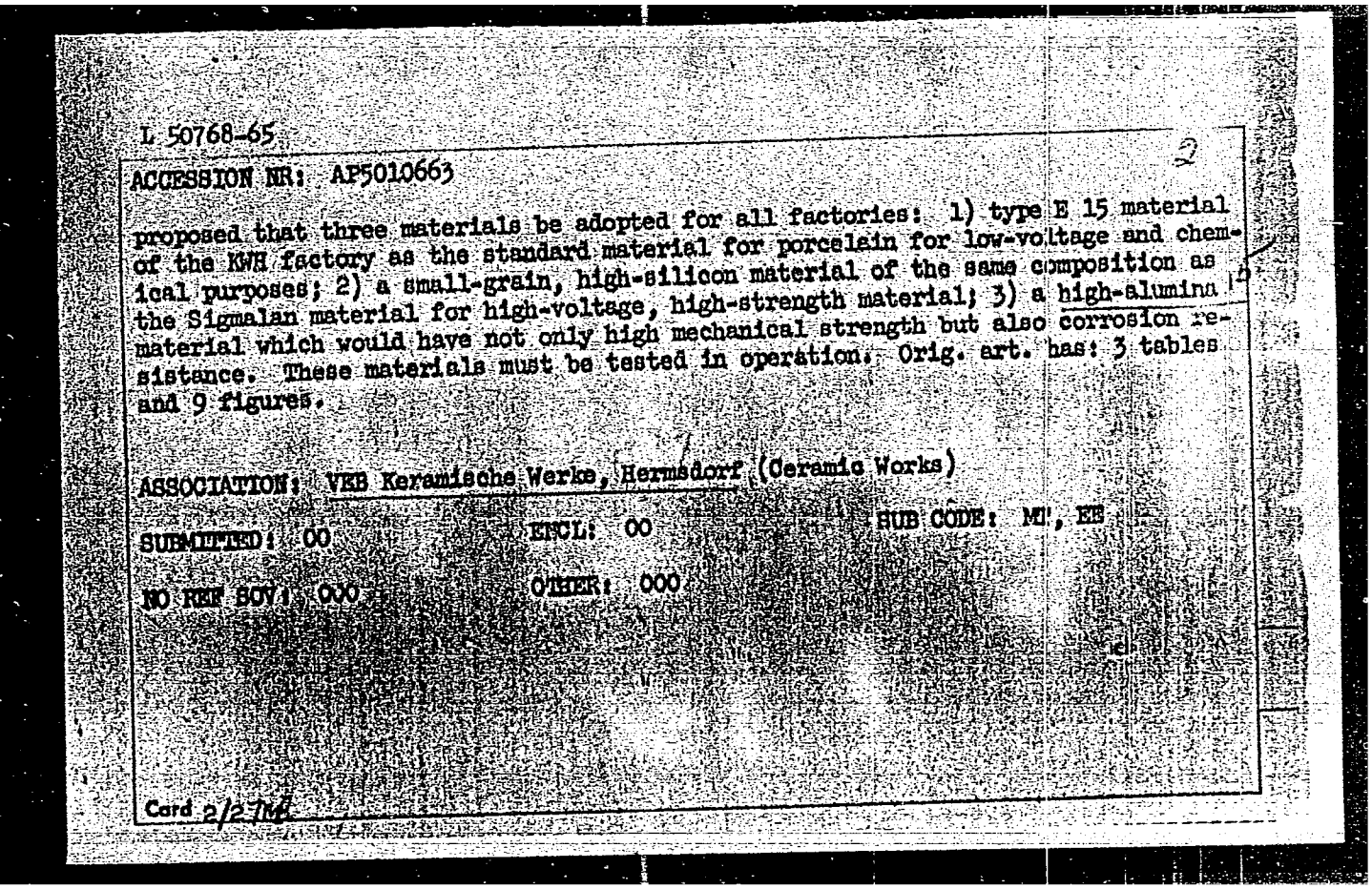
TITLE: The development of a porcelain of high mechanical strength in the technical ceramics factories of the GDR

SOURCE: Sklar a keramik, no. 4, 1965, 139-142

TOPIC TAGS: electric power transmission, high voltage transmission, high strength porcelain, electric ceramic, breakdown voltage, dielectric strength, electric porcelain, porcelain insulator

ABSTRACT: The article reports on tests made on various materials in East German factories producing electrotechnical ceramics from porcelain of high mechanical strength. The tests show that the Sigmalan material best meets the high requirements of high-strength electrotechnical ceramics. The growing interest in the long-distance transmission of electrical energy at very high and the highest voltages has stimulated interest in the development of a high mechanical strength porcelain, and from 1950 all the industrial states have carried on investigations to develop high-strength insulators. On the basis of the research in the field it is

Card 1/2



L 50768-65

ACCESSION NR: AP5010663

proposed that three materials be adopted for all factories: 1) type E 15 material of the KWH factory as the standard material for porcelain for low-voltage and chemical purposes; 2) a small-grain, high-silicon material of the same composition as the Sigmalan material for high-voltage, high-strength material; 3) a high-alumina material which would have not only high mechanical strength but also corrosion resistance. These materials must be tested in operation. Orig. art. has: 3 tables and 9 figures.

ASSOCIATION: VEB Keramische Werke, Hermsdorf (Ceramic Works)

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, EM

NO REF SOV: 000 OTHER: 000

Card 2/2 JMP

BABAZADE, B.K.; AKHMEDOV, A.M.; PALAUDIN, A.M.

Growth of petroleum and gas reserves during the 40 years of the Soviet regime in Azerbaijan. Azerb. neft. khoz. 39:9-13 Ap '60. (MIRA 13:11)

(Azerbaijan—Petroleum geology)
(Azerbaijan—Gas, Natural—Geology)

KARHAUKHOV, A.S.; MIZERA, M.; PALAUSH, R.

Photometric determination of strontium. Zhur.anal.khim. 15 no.4:502 Jl-Ag '60. (MIRA 13:9)

1. Higher Pedagogical School, Praga, Chechoslavakia.
(Strontium--analysis)

Ca

Methods of chemical analysis of magnesite and dolomite and their products. A. [illegible]chenko and A. Palamarchuk. *Ukrain. Nauch.-Issledovatel. Inst. Ogneuporov* [illegible] *Kislotouporov* 33, 3 21(1934). The analysis is described.
M. V. Kondoidy

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

Tereshchenko, A. V., and Palenov, V. A. METHODS OF CHEMICAL ANALYSIS OF MAGNESITES AND DOLOMITES AND ARTICLES MADE OF THEM. Ukrain Sci Research Inst of Refractory and Acid Resisting Materials. State Sci Tech Pub House Ukraine, Kharkov. Vol 23, 1934. 24 pp. Price 1 R 30 kopecks. The object of this work was to find simpler, more rapid, and cheaper methods of chemical analysis. Volumetric methods are most rapid and for this reason were used in the investigation. After a review of literature on this subject the results of the authors' investigation are given. Detailed systematic procedures of chemical analysis of dolomites, magnesites, and dolomite and magnesite products are given. A bibliography is included.

Terechchenko, A. V., and Palamar, V. A. [illegible] ... No. 34, ... Rept. Invest. No. 3314, 12 pp. ... Talc concentrates and tailings rich in magnesite were obtained in experimental concentration of Vermont talc magnesite ores. Magnesite is considered in the report because of its possible market value.

PALAVANDISHVILI, B.I.

Contribution of the scientists of Georgia to agriculture. Zemledelie 27 no.2:9-13 F '65. (MIRA 18:4)

1. Zamestitel' ministra proizvodstva i zagotovok sel'skokhozyaystvennykh produktov Gruzinskoy SSR.

LAGIDZE, [illegible].M.; [illegible]; [illegible]SHVILI, [illegible].A.

Reactions involved in [illegible] benzene by [illegible] γ'-acetylenic glycols in the presence of anhydrous $AlCl_3$. Soob. AN Gruz. SSR 28 no.4:[illegible]-416 Ap '62.

([illegible] 28:1)

1. AN Gruzinskoy SSR, Institut khimii im. P.G. Melikishvili, Tbilisi. Submitted February [illegible], 19[illegible].

USSR / Human and Animal Physiology (Normal and Patholo- T
gical). Reproduction

Abs Jour: Ref Zhur-Biologiya, No 21, 1958, 97783

Author : Mgaloblishvili, Ye. M., Palavandishvili, I. I.

Title : Index of Vitamin C in the Maternal Blood, Fetus, and Placenta Protection. Tissue in Premature Delivery

Orig Pub: Sb. tr. N.-i. in-t okhrany materinstva i detstva GruzSSR, 1956, 7, 89-92

Abstract: In 65 women who had premature labor, the content of of vitamin C in the blood of mother, fetus, and placenta was lowered. Vitamin C should be administered during pregnancy for prophylaxis of premature labor. --Author's summary

Card 1/1

PALAVANDISHVILI, Sh.Sh.

Gigantic coprolith in a megadolichocolon. Khirurgiia no.6:113-114 Je '61. (MIRA 14:11)

1. Iz Yelgavskoy gorodskoy bol'nitsy, Latviyskaya SSR.
(COLON--ABNORMITIES AND DEFORMITIES) (CALCULI)

PALAVANDISHVILI, Sh.Sh. (Riga, ulitsa Karla Marksa, dom 22, kvartira 7)

Surgical treatment of esophageal diverticulum. Vest. khir. 9[illegible] no.9:110 S'63. (MIR[illegible])

1. Iz Rizhskogo onkologicheskogo dispansera (glavnyy vrach-K.N. Mordoshov).

PALAVANDISHVILI, Sh.Sh. (Riga)

Metal ring for angiorrhaphy. Eksp.khir. 4 no.2:60-61
Mr-Ap '59. (MIRA 12:5)
(BLOOD VESSELS, surgery,
metal ring for angiorrhaphy (Rus))

PALAVEEV, T.; KHRISTOVA, El.; DINCHEV, D.; TAKOVA, T.; BIKS, St.

Introduction of boron fertilization in Bulgaria. Izv Inst "Nikola Pushkarov" 4:89-131 '62.

BICHEV, As., prof. d-r; GALEVA, V., d-r; PALAVEEV, I., d-r; RAIKOV, L.

Prof. TSvetan Staikov, Corresponding Member of the Bulgarian Academy of Agricultural Sciences, is sixty. Izv. Inst "Nikola Pushkarov" 7:5-6 '68.

1. Chlenovi na Redaktsionnata kolegiia, "Izvestiia na Instituta za pochvoznanie i agrotekhnika 'Nikola Pushkarov'".

D

COUNTRY : Bulgaria
CATEGORY :

ABS. JOUR. : RZKhim., No. 22 1959, No. 78211

AUTHOR : Palaveev, T.
INST. : N. Pushkarov Institute for Soil Research
TITLE : Boron Content in the Chernozems and Gray Forest Soils of Northern Bulgaria

ORIG. PUB. : Nauchni Trudi Inst Pochv Izsled 'N. Pushkarov,' 3, 409-433 (1957)

ABSTRACT : The B content (in %) of chernozems was found to be as follows: total, $2.8 \cdot 10^{-3}$-$5.5 \cdot 10^{-3}$, water soluble $9 \cdot 10^{-5}$-$10 \cdot 10^{-5}$; gray forest soils were found to contain $3.3 \cdot 10^{-3}$ total B and $3 \cdot 10^{-5}$-$5 \cdot 10^{-5}$% water soluble B. The highest B content was observed in the salted [sic] soils of the Karaboaz Plain (total B $n \cdot 10^{-2}$, water soluble B $2.2 \cdot 10^{-4}$%). Over 80% of the boron found in chernozems over fluvial silt is found in the form of tourmaline. The territory of Northern

CARD: 1/2

PALAVEYEV, T.

Boron in Chernozems and gray forest soils of northern Bulgaria [with summary in English]. Pochvovedenie no. 9:116-122 '58. (MIRA 11:10)

1. Pochvennyy institut imeni N.Pushkarova, Sofiya.
(Bulgaria--Minerals in soil)
(Boron)

KHRISTOV, Mikhail; PALAVEYEVA-KOVACHEVA, Maria

Observations on the development and productivity of pure alfalfa as compared to grass mixtures. Selskostop nauka 2 no.1:32-43 '63.

SYRBOVA, S. [Surbova, S.]; PALAVEYEVA, M. [Palaveeva, M.]

Study on the insecticide action of certain Bulgarian plants.
Trudy epidemiol mikrobiol 8:203-205 '61 [publ.'62].

1. Nauchno-issledovatel'skiy institut epidemiologii i mikrobiologii (for Surbova). 2. SSI im. G. Dimitrova (for Palaveeva).

PALAY, G.; ERDELYI, L.

The application of oscillographic polarography in some textilchemical investigations. Pt.5. Chem zvesti 18 no.5/6:444-447 '64.

1. United Chemical Works and Central Laboratory of the Research Institute of Coloring, Budapest.

UDYANSKIY, Nikolay Yakovlevich; PALAY, Poliharp Avtonomovich; TOMASHPOL'SKIY, Leonid Markovich; STRIZHOV, N.I., redaktor; BEKMAN, Yu.K., vedushchiy redaktor; MUKHINA, E.A., tekhnicheskiy redaktor

[Technique and technology of boring oil and gas wells in the sixth five-year plan] Tekhnika i tekhnologiia bureniia neftianykh i gazovykh skvazhin v shestoi piatiletke. Moskva, Gos.nauchno-tekhn. izd-vo neft.i gorno-toplivnoi lit-ry, 1957. 127 p. (MIRA 10:7)
(Oil well drilling) (Gas, Natural)

L 15414-66 EWT(m)/EWP(j)/T RM
ACC NR: AP6000458 (A) SOURCE CODE: UR/0324/65/000/004/0017/0022

AUTHORS: Palayma, Yu.; Matukonis, A.

ORG: Kaunas Polytechnic Institute (Kaunasskiy politekhnicheskiy institut)

TITLE: Variation in the properties of nonuniform fibers with repeated stretching

SOURCE: IVUZ. Tekhnologiya tekstil'noy promyshlennosti, no. 4, 1965, 17-22

TOPIC TAGS: textile, textile industry, shear modulus, caprone, acetate, strain gage, synthetic fiber/ Schopper dynamometer

ABSTRACT: The behavior of nonuniform two-component fibers under repeated stretching is studied, and the laws of the variation in the basic properties of the system and its components are examined. The experiments were performed with viscose capron and acetate capron twisted fibers. Electrotensometric apparatus based on the Schopper dynamometer was used to test the fibers at high amplitudes and low frequencies. The amplitude was 2, 5, and 10% of the initial length of the specimen (500 mm). The rate of deformation was 8.33 mm/sec and the number of cycles was 50. A change in the angle of inclination of the components affects chiefly the initial modulus of rigidity of a nonuniform fiber. The strength and breaking elongation of a nonuniform

Card 1/2

L 15415-66

ACC NR: AP6000458

fiber and its components during cyclic stretching are almost unchanged. Orig. art. has: 8 graphs and 1 table.

SUB CODE: 11/ SUBM DATE: 24Feb65/ ORIG REF: 003/ OTH REF: 005

Card 2/2

PALAYMA, Yu. [Palaima, J.]; [illegible]

Use of electric modeling for the study of some mechanical properties of nonuniform yarn. Izv. vys. ucheb. zav.; tekh. teks. prom. no.3:19-25 '64. (MIRA 17:10)

1. Kaunasskiy politekhnicheskiy institut.

PALAYYA, A.

Some remarks on the distribution of stress in semielastic space. p. 141.

INZENYRSKE STAVBY. (Ministerstvo stavebnictbi)
Praha, Czechoslovakia, Vol. 7, No. 4, Apr. 1959.

Monthly List of East European Accession, (EEAI), LC, Vol. 8, No. 12, Dec. 1959.
Uncl.

PHASE I BOOK EXPLOITATION SOV/3623

Palazky, Alfred

Tekhnicheskaya keramika (Industrial Ceramics) Moscow, Gosenergoizdat, 1959. 174 p. 4,800 copies printed.

Translator: M.L. Mirkin; Ed.: P.O. Gribovskiy; Tech. Ed.: G.I. Matveyev.

PURPOSE: The book is intended for students at schools of higher technical education and engineers specializing in industrial ceramics.

COVERAGE: The book, a translation from German, presents basic principles of the production and physical and chemical properties of some new materials used in the electrical industry and in special fields. It describes methods for processing oxides and the production of articles from clay, beryllium oxide, spinels, magnesite, zirconium, and thorium oxide. No personalities are mentioned. There are 60 references: 47 German, 9 English, 2 Soviet, 1 French, and 1 Italian.

Card 1/3

Industrial Ceramics

TABLE OF CONTENTS:

L 36481-65

ACCESSION NR: AP5010565 UR/0204/64/004/005/0798/0803

AUTHOR: Shopov, D.; Dyankov, St.; Kotsev, N.; Chausheva, L.; Palazov, At.

TITLE: Investigation of aromatic hydrocarbons of Pleven Petroleum

SOURCE: Neftekhimiya, v. 4, no. 5, 1964, 798-803

TOPIC TAGS: aromatic hydrocarbon, gasoline, petroleum, chromatographic analysis, IR spectroscopy

Abstract: The aromatic hydrocarbons of gasoline isolated from petroleum in the region of Dolni-Dybnik, Plevenskaya Oblast, were investigated by chromatography and infrared spectroscopy. The aromatic portion of the gasoline fraction of this petroleum contained 34 hydrocarbons; 31 were identified by infrared absorption spectra. The structural type was established for the other hydrocarbons. Orig. art. has 5 graphs and 2 tables.

ASSOCIATION: Institut organicheskoy khimii Bolgarskoy Akademii nauk (Institute of Organic Chemistry, Bulgarian Academy of Sciences)

SUBMITTED: 24Feb64 ENCL: 00 SUB CODE: FP, OP
NO REF SOV: 003 OTHER: 009 JPRS

Card 1/1

SHOPOV, D.M.; PALAZOV, A.N.

Study of the system chromium oxide - oxygen by infrared spectroscopy. Kin.i kat. 6 no.5:864-868 S-O '65.
(MIRA 18:11)

1. Institut organicheskoy khimii Bolgarskoy akademii nauk, Sofiya, Bolgariya.

PAL'CGIK, G. I.

"Physical methods of treatment in military-vet erinary practice," In symposium: Nauch - prakt. raboty voyen-vet. sluzhby, Moscow, 1946, p. 14-18

SO: U-3850,16 June 53, (Letopis 'Zhurnal 'nykh Statey, No 5, 1949).

PAL'CHAK, N.

Now even we are doing this. Voen. znan. 40 no.2:22 F '64.
(MIRA 17:2)

1. Instruktor oblastnoy shkoly grazhdanskoy oborony Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, Aktyubinsk.

MOGILEVSKIY, Dmitriy Aleksandrovich, dotsent; BABKOV, Valeriy Fedorovich, prof., doktor tekhn.nauk; SMIRNOV, Andrey Sergeyevich, kand.tekhn. nauk; ABRAMOV, Leonid Tikhonovich, kand.tekhn.nauk; ZAYTSEV, Filipp Yakovlevich, kand.tekhn.nauk; ZAMAKHAYEV, Mitrofan Semenovich, kand.tekhn.nauk; NIKITIN, Sergey Mikhaylovich, inzh.; BIRULYA, A.K., prof., retsenzent; DUDKIN, P.A., kand.tekhn.nauk, retsenzent; AVDEYEV, V.N., retsenzent; KARTASHEV, V.A., retsenzent; PAL'CHEV, A.G., retsenzent; POPOV, A.N., retsenzent; PTITSIN, I.G., retsenzent; ROMANENKO, I.A., prof., retsenzent; BARATS, L.A., prepodavatel', retsenzent; BASKEVICH, N.I., prepodavatel', retsenzent; BEL'SKIY, A.Ye., prepodavatel', retsenzent; KALUZHSKIY, Ya.A., prepodavatel', retsenzent; CHVANOV, V.G., red.; MAL'KOVA, N.V., tekhn.red.

[Locating and designing airfields] Izyskaniia i proektirovanie aerodromov. Pod red. V.F.Babkova. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transporta i shosseinykh dorog RSFSR, 1959. 566 p. (MIRA 13:3)

1. Khar'kovskiy avtomobil'no-dorozhnyy institut (for Romanenko, Barats, Baskevich, Bel'skiy, Kaluzhskiy).
(Airports--Planning)

PAICHEV, Kr., inzh.; VLADOV, Il.

Laying and connecting the pipes of hard polyvinyl chloride (PVC). Kozhi Sofia 3 no.2:9-10 '62.

PAICHEV, Krasimir, inzh.; SIMEONOV, Kuncho, inzh.; VLADOV, Iliia

What handbook is indispensable. Some critical notes on the Pt. 2 of the "Handbook on rubber and plastic materials." Kozhi Sofia 3 no.2:16 '62.

KUTSOVSKIY, F.V.; PAL'CHEV, P.G.

Hot sizing of drop forged products. Kuz.-shtam. proizv. 2 no.8: 7-9 Ag '60. (MIRA 14:2)
(Forging)

Pal'chev, P. O.

USSR/ Engineering - Metal working

Card 1/1 Pub. 128 - 18/35

Author : Pal'chev, P. O., and Entsovskiy, P. V.

Title : Hot extrusion of steel forgings on a crank press

Periodical : Vest. mash. 35/3, 56 - 58, Mar 1955

Abstract : A description is given of the experience of the forge stamping shop of the Kalibr mill, which has introduced mass production by hot extrusion of forgings on crank presses, instead of forging by hammers. The method is found to increase precision of dimensions and to save many operations. Illustrations; diagrams; tables.

Institution : .....

Submitted : .....

PAL'CHEVSKAYA

POLAND/Electrochemistry B-12

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26310

Author : Pal'chevskaya
Inst : Academy of Sciences of Poland
Title : Influence of Polar Organic Substances and Catalyst Poisons on Overvoltage of Hydrogen on Nickel and Iron Catodes

Orig Pub : Byul. Pol'skoy AN 1956, Otd. 3, 4, No 1, 37-42; Bull. Acad. Polon. Sci., cl. 3, 1956, 4, No 1, 37-42

Abstract : The influence of additions of As_2O_3 (I) (100 mg per lit) and $(C_6H_5CH_2)_2SO$ (II) (2 to 100 mg per lit) to 1 n. H_2SO_4 on the shape of polarization curves (PC) of Ni and Fe cathodes in the range from 10^{-3} to 0.1 a per sq.cm was studied. It was established that the addition of II in the amount above 30 mg per lit (in case of Ni) or 20 mg per lit (in case of Fe) sharply rises the potential E from -0.65 to -0.75 v (in case of Ni), or from -0.7 to -0.8 v (in case of Fe); this is accompanied by an increase of dimensions and alteration of shape of H_2 bubbles. The same effect is observed also in presence of I, at which occasion the shift is revealed at a more positive E: -0.6 v (Ni) and -0.7v

Card : 1/2

L 54654-65

ACCESSION NR: AT5014965 UR/0000/65/000/000/0084/0090

AUTHOR: Balkasheva, L. U.; Palchevskaya, A. Ye.; Goncharenko, S. V. 12 B4

TITLE: The effect of fast neutrons on the culture and morphological characteristics of Bacillus mesentericus

SOURCE: AN UkrSSR, Institut fiziologii. Biologicheskoye deystviye neytronnogo izlucheniya (Biological effect of neutron radiation). Kiev, Naukova dumka, 1965, 84-90

TOPIC TAGS: fast neutron, neutron radiation, biological effect, Bacillus, gamma radiation

ABSTRACT: Results are presented of a study of the cultural and morphological properties of variants of Bacillus mesentericus no. 10, which were isolated during irradiation with fast neutrons. This work is part of a continuing investigation of the interconnection between changes of these properties and the formation of hydrolytic ferments during irradiation. A suspension of the bacteria was irradiated with fast neutrons (doses of 50—1000 rad) and cultured on various media. Then the growth of colonies was examined. It was found that morphological changes were caused by lower doses of neutrons than by other types of radiation (for instance, Co^{60} gamma radiation). In most cases no essential differences were noted in the

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L 54654-65

ACCESSION NR: AT5014965

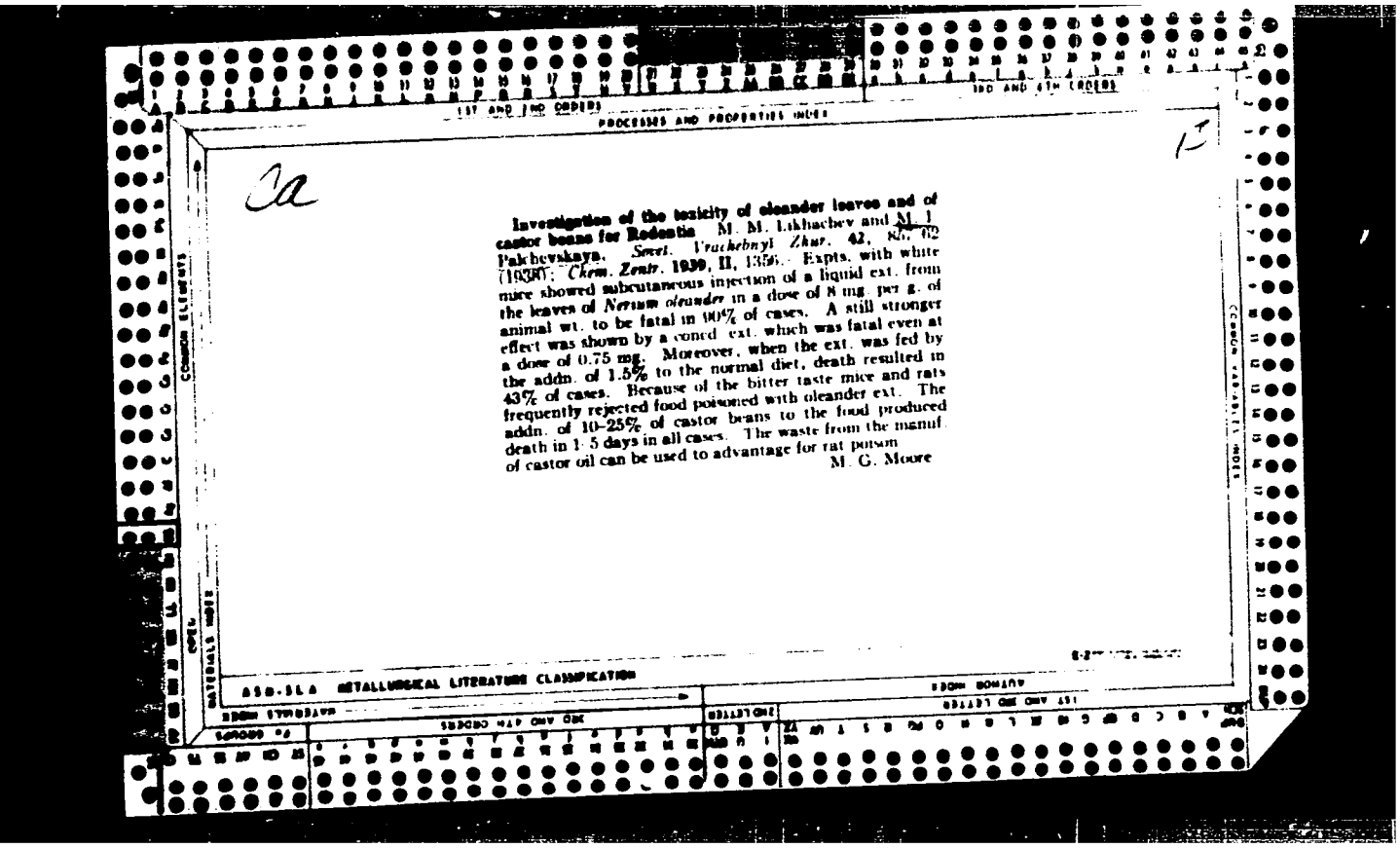
behavior of cultures grown on milk and carbohydrate media. The initial strain of Bacillus mesentericus no. 10 is characterized by grayish-white colonies with a convoluted surface, convex center, and uneven edges. As a result of irradiation of the initial strain of the bacteria with Co^{60} gamma rays and fast neutrons, the following morphological variants were isolated: 1) smooth variant—with green scalloped edges; 2) flat wrinkled variant—with flat, concave center surrounded by wrinkled area; 3) pigment variant—green and orange colonies with powdery white deposit on the surface; and 4) mucous variant—with flat green center and mucous edges. Orig. art. has: 7 figures and 1 table. [JS]

ASSOCIATION: Institut mikrobiologii AN UkrSSR (Institute of Microbiology, AN UkrSSR)

SUBMITTED: 22Feb65 ENCL: 00 SUB CODE: LS

NO REF SOV: 010 OTHER: 000 ATD PRESS: 4015

Card 2/2



2a

Investigation of the toxicity of oleander leaves and of castor beans for Rodentia M. M. Likhachev and M. I. Pakchevskaya. *Sovet. Vrachebnyi Zhur.* 42, 80–92 (1938); *Chem. Zentr.* 1939, II, 1356. Expts. with white mice showed subcutaneous injection of a liquid ext. from the leaves of *Nerium oleander* in a dose of 8 mg. per g. of animal wt. to be fatal in 90% of cases. A still stronger effect was shown by a concd. ext. which was fatal even at a dose of 0.75 mg. Moreover, when the ext. was fed by the addn. of 1.5% to the normal diet, death resulted in 43% of cases. Because of the bitter taste mice and rats frequently rejected food poisoned with oleander ext. The addn. of 10–25% of castor beans to the food produced death in 1–5 days in all cases. The waste from the manuf. of castor oil can be used to advantage for rat poison.

M. G. Moore

PAL'CHEVSKAYA, M.I., dots., RUMYANTSEVA, V.V.

Effect of certain analgesics on the course of acute suppurative inflammation. Trudy IMI 2:85-97 '55 (MIRA 11:8)

1. Kafedra farmakologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.V. Zakusov) i kafedra patologicheskoy anatomii (zav. - prof. M.A. Zakhar'yevskaya) Pervogo Leningradskogo meditsinskogo instituta imeni akademika I.P. Pavlova.
(ANALGESICS)
(ANTIPHLOGISTICS)

PAL'CHEVSKY

POLAND/Chemical Technology. Cellulose and its Derivatives. H

Abs Jour: Ref. Zhur-Khimiya, No 12, 1958, 41877.

Author : May, Pal'chevsky.
Inst : Not given.
Title : A Comparison of Roe's method for Evaluating the Completeness of Cellulose Pulping With That of Kung, Bjorkman Sieber and Oestrand.

Orig Pub: Przegl. papiern., 1957, 13, No 10, 319-320.

Abstract: The degree of completeness of cellulose pulping (C) is usually determined in PNR by the methods of Kung, Bjorkman and Sieber. Kung's method is applied exclusively to normal, hard, sulfite C; Bjorkman's method - for soft sulfite C; Sieber's method - for sulfate C; Roe's method is applicable for C with various purposes and various (small, large) lignin con-

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Card : 1/2

PAL'CHEVSKIY, A.

BRYL', Yanka (Ivan) Antonovich; PAL'CHEVSKIY, A. [Pal'cheuski, A.], red.; KALINCHYTS, G., tekhn. red.

[Through the eyes of a friend; Polish diary] Vachyma druha; pol'ski dzionnik. Minsk, Dziarzh. vyd-va BSSR, 1956. 97 p. (MIRA 11:8)
(Poland--Description and travel)

PALCHEVSKIY, A. P., Eng.

Water Pipes

Carrying capacity of steel pipe lines. Gidr. stroi. 21. No. 5, 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1952-1953, Uncl.

1. PALCHEVSKIY, A. P., Eng.

2. USSR (600)

4. Water Pipes

7. Coefficient of narrow drop. Gidr. stroi. 22, No. 2, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, April 1953. Unclassified.

PALCHEVSKIY, A. P.

USSR/Engineering - Hydraulics, Conveyance May 52

"Transportation Capacity of Steel Pipelines," A. P. Palchevskiy, Engr

"Gidrotekh Stroit" No 5, pp 43-45

Defines terms "transportation capacity" in application to pulp-conveying pressure pipes and develops formulas and method for designing pipelines. Formulas, based on principle of Reynold's dynamic similarity, are universal and adaptable for calcn of pressure pipelines for work with any mineral suspension such as sands, clays, gravel, slag, coal, fine ores, etc.

230T20

PAL'CHEVSKIY, A.S., inzh.

New kind of bearing element for structural units. Prom. stroi. 40 no.7:54-55 Jl '63. (MIRA 16:10)

L 01227-67 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k) IJP(c) WW/EM

ACC NR: AP6032390 SOURCE CODE: UR/0198/66/002/009/0037/0043

29

B

AUTHOR: Pal'chevskiy, A. S. (Kiev)

ORG: Institute of Mechanics, AN UkrSSR (Institut mekhaniki, AN UkrSSR)

TITLE: Designing cylindrical stringer-stiffened shells of minimum weight under axial compression

SOURCE: Prikladnaya mekhanika, v. 2, no. 9, 1966, 37-43

TOPIC TAGS: cylindric shell, stiffened shell stringer, stiffened shell, minimum weight shell, minimum weight design, axially compressed shell buckling

ABSTRACT: A method for designing minimum-weight circular cylindrical shells subjected to axial compression is proposed. The shell under discussion is stiffened by thin-walled stringers of open cross section, hinged along its edges, and the axial compression forces are uniformly distributed along them. The buckling stresses are determined in accordance with the linear theory of small deflections within the range of elastic strain. The maximum value of the ratio $W = N_s/N$, where N_s and N are the buckling forces for stiffened and plain shells (of the same cross-section area), respectively. The following modes of buckling are discussed: 1) the stringers undergo bending and twisting; 2) the stringers are only bent; and 3) the stringers are only twisted. This approach to designing stiffened shells and the formulas for their buckling-stress parameters are taken from I. Ya. Amiro's article (Prykladnaya mekhanika,

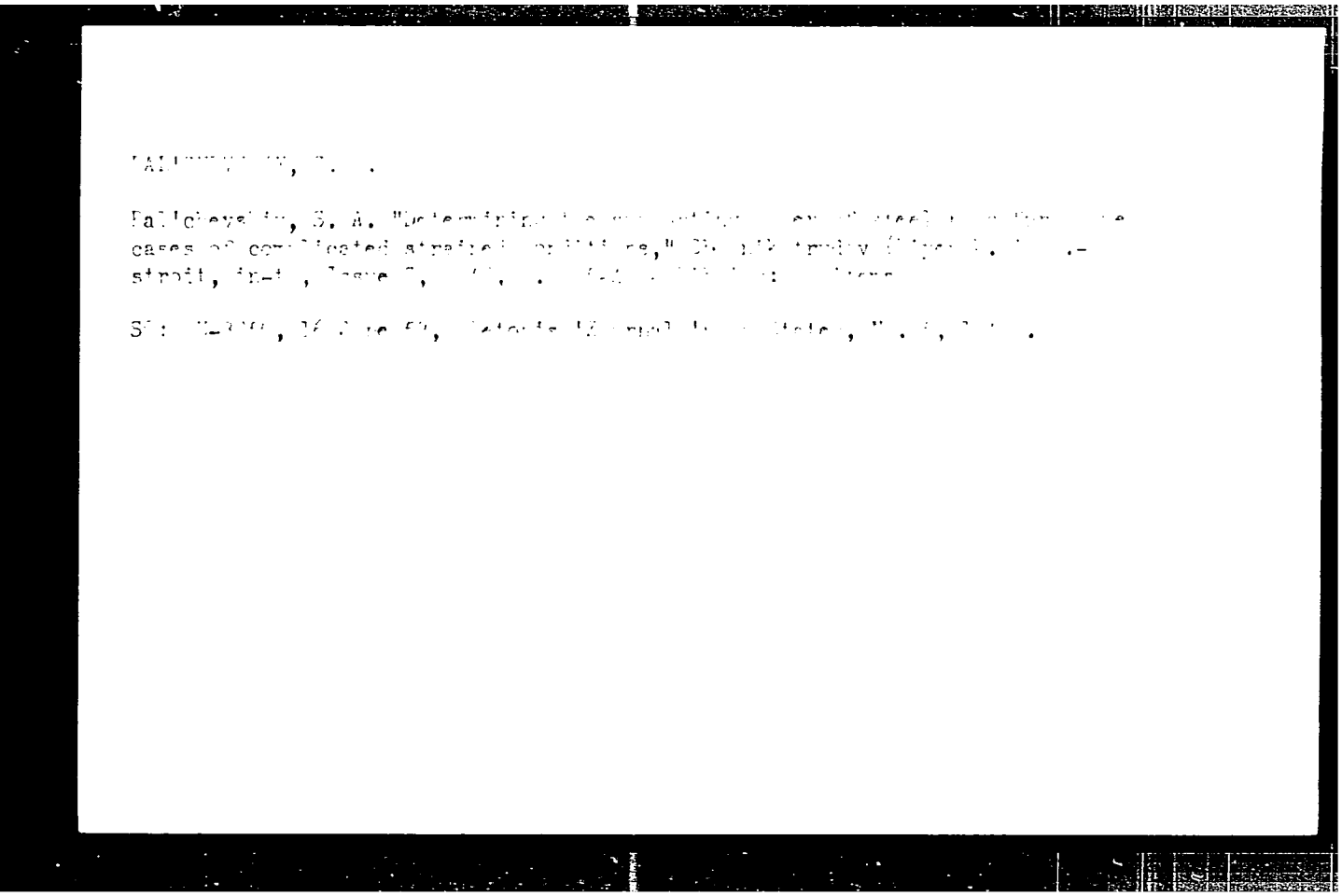
Card 1/2

Card 2/2 egk

RAYEVSKIY, G.V., kand.tekhn.nauk; BILETSKIY, S.M., inzh.; PAL'CHEVSKIY, A.S., inzh.

Factory manufacture of outsize cement kiln bodies. Mont.i spets. rab.v stroi 24 no.12:2-6 D '62. (MIRA 15:12)

1. Institut elektrosvarki imeni Ye.O. Patona.
(Cement kilns)



PAL'CHEVSKIY, V. V.

"Potentiometric and spectrophotometric investigations of reversible organic oxidation-reduction systems." Leningrad Order of Lenin State U imeni A. A. Zhdanov. Leningrad, 1956. (Dissertation for the Degree of Candidate in Chemical Sciences).

SO: Knizhnaya letopis', No. 16, 1956

PAL'CHEVSKIY, V.V.

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. [illegible] Zhdanova* No. 211, *Ser. Khim. Nauk* No. 15, 25–39 (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 | [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, 2667; 22, 599). 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 510.0 mμ rather than at the absorption max. 607.5 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 $E = \varphi^0 - (\vartheta/2)$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 $(\varphi_{H^+})^1_{min.} = K_1K_2$, $E_{min.} = \varphi_0 + (\vartheta/2) \log (K_1 + 2\sqrt{K_1K_2})$; $K_1 = 0.07 \times 10^{-5}$, $K_2 = 1.36 \times 10^{-5}$, $\varphi_0 = 541.0$ mv., at 20°. These results agree satisfactorily with those obtained by Clark at 30°; 8×10^{-6}, and 1.4×10^{-5}.

F. H. Rathmann

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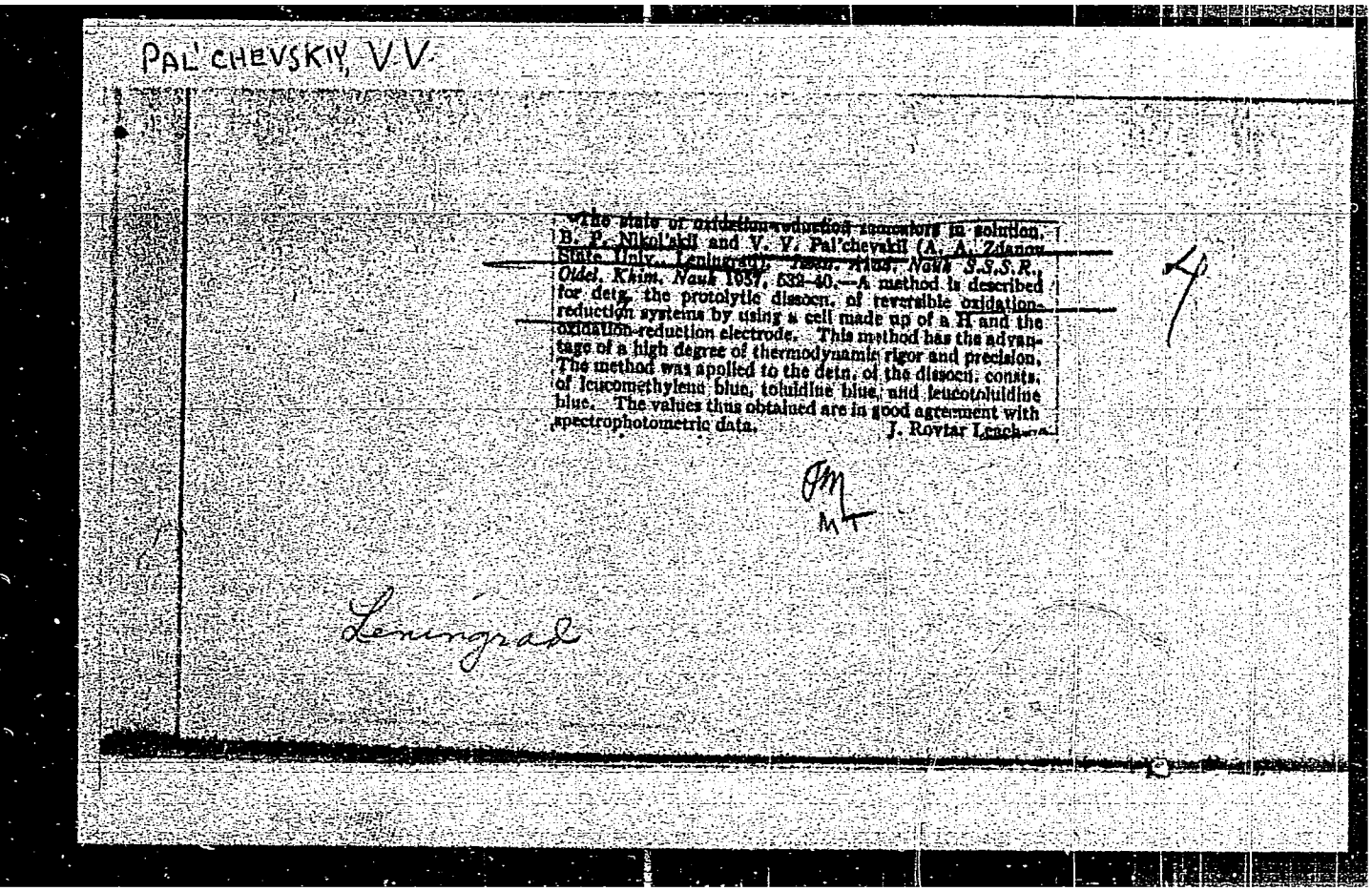

PAL'CHEVSKIY, V.V.

The state of oxidation-reduction indicators in solution. B. P. Nikol'skii and V. V. Pal'chevskii (A. A. Zhdanov State Univ., Leningrad). *Trudy Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1957, 632-40.—A method is described for detg. the protolytic dissocn. of reversible oxidation-reduction systems by using a cell made up of a H and the oxidation-reduction electrode. This method has the advantage of a high degree of thermodynamic rigor and precision. The method was applied to the detn. of the dissocn. consts. of leucomethylene blue, toluidine blue, and leucotoluidine blue. The values thus obtained are in good agreement with spectrophotometric data. J. Rovtar Leach—a

4

Leningrad

NIKOL'SKIY, B.P.; PAL'CHEVSKIY V.V. (Leningrad)

Spectrophotometric determination of dissociation constants of leucomethylene blue and leucotoluidine blue [with summary in English]. Zhur. fiz. khim. 3 no.9:1506-1516 Jl '58. (MIRA 11:9)
(Methylene blue--Spectra)
(Toliudine blue--Spectra)

AUTHORS: Nikol'skiy, B. P., Pal'chevskiy, V. V. 76-32-6-15/46

TITLE: A Potentiometric Method of Investigating Reversible Organic Redox Systems (Potentsiometricheskiy metod issledovaniya organicheskikh obratimykh okislitel'no-vosstanovitel'nykh sistem)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 6, pp. 1280 - 1291 (USSR)

ABSTRACT: A theory for the explanation of the influence of hydrogen ions on the oxidation potential of such systems was proposed already by Conant, Kohn, Fieser and Kurz (Ref 4). Clark gave the theory its final shape, his method, however, still shows serious shortcomings as it was further developed with a primary interest in detail issues, for example in papers by Michaelis et al.(Refs 7-9). In the present investigation galvanic elements without transfer and a glass electrode instead of a hydrogen electrode are used. Proceeding from the protolytic theory of acids and bases by Brönsted an equation is derived which permits to represent all theoretically possible protolytic equilibria In certain cases a simplification is possible. The function of the oxidation potential versus the pH of the system toluidine blue-leucoto -

Card 1/3

A Potentiometric Method of Investigating Reversible Organic Redox Systems

76-32-6-15/46

luidine blue is investigated. From the evidence of the graphical representations it may be seen, that this method furnishes more accurate data of the dissociation constant than that by Clark, the errors being smaller. This method was verified experimentally with the systems methylene blue-leucomethylene blue and toluidine blue-leucotoluidine blue. The experimental technique and a schematic figure of the experimental equipment are described. The results showed a good agreement with the mentioned equation. The value of the dissociation constant as obtained by Woislawski (Ref 12) also coincides with that obtained by the authors. Taking the system thionine-leucothionine as an example it is proved that a more precise determination of the constant of protolytic dissociation is possible by the method described. The difference between theory and experiment in the alkaline range is explained by experimental errors, which in this case are exceptionally high. There are 5 figures, 3 tables, and 12 references, 3 of which are Soviet.

AUTHORS: Nikol'skiy, B. P., Pal'chevskiy, V. V. SOV/76-32-7-10/45

TITLE: The Spectrophotometric Determination of the Dissociation Constant of Leucomethylene Blue and Leucotoluidine Blue (Spektrofotometricheskoye opredeleniye konstant diссotsiatsii leykometilenovogo sinego i leykotoluidinovogo sinego)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, No. 7, pp. 1505-1516 (USSR)

ABSTRACT: The two above-mentioned compounds had already been investigated potentiometrically in an earlier paper. In the present paper the electron absorption spectra are investigated; since the dissociation takes place in two stages, with RH_2^{+2} and RH_2^{+} being formed besides H^{+} ions, and the proteolytic dissociation constants of the two reactions are very close to each other the authors employed the method by Thammer and Voigt (Ref 4). The measurements were carried out by means of a spectrophotometer SF-4 taking into account a number of conditions; thus, for instance, the measurements were carried out within the maximum of the absorption through 1 mμ. In order to take into account the high sensitivity to oxidation a special apparatus was constructed, a diagram and de-

Card 1/4

scription of which are given. The determinatios were carried out in three stages; in the mentioned apparatus the oxidized form was reduced at a certain pH value by hydrogen besides platinum and then was put into the bulb; afterwards it was spectrophotometered and finally the real concentration of the leuco-form was determined by an oxidation with hydrogen peroxide. The measurements were carried out at 20 ± 2°C. Some data are already existing on the absorption spectrum of leucomethylene blue, viz., from the papers by Holst (Ref 5), Vles (Refs 6, 7), and A. T. Vartanyan (Refs 8, 9), whereas no data are known on that of leucotoluidine blue. The determinations carried out showed that at different pH values in the case of leucomethylene blue three products of the equilibrium of the leucoform are present, in the acid part the RH^{2+} products and in the alkali part the RH form. Three absorption spectra are given with the third diagram corresponding to pH = 5,28, at which the concentration of the RH_2^+ product is close to the maximum value. Within the shortwave range an increase of the absorption can be found which is especially

The Spectrophotometric Determination of the Dissociation Constant of Leucomethylene Blue and Leucotoluidine Blue

strong in the case of the RH form. The absorption spectrum of leucotoluidine does in qualitative respects not differ from that of leucomethylene blue and the maximum of the basic absorption band also regularly decreases with the increase of the pH, and is dislocated towards greater wave lengths, it finally increases again and returns to the previous position at 256 mμ. The similarity in the reaction of the two leuco compounds is explained by a mutual compensation of the influence of the protons on the electron shell of the leuco compound. The experimental data of the determination of the optical density at various pH point to the assumption that in the case of low pH values there exists only the leuco product RH_2^{2+} and thus the optical density does not depend on the pH. With the increase of the pH value the RH_2^+ product with a smaller absorption coefficient is formed by the dissociation, whereby the optical density decreases with the increase of the pH, and then increases again in the further dissociation and formation of the RH product which has a greater absorption coefficient. The proteolytic dissociation

constants as well as the molecular absorption coefficients were calculated from the values of the optical densities and the activities of the hydrogen ions. The general optical densities of the two dyes were produced by the additivity principle. Finally there is an annex which shows the calculation of the dissociation constant from the optical densities for bi-basic acids proceeding from the suggestion made by Thamer and Voigt (Ref 4). There are 8 figures, 2 tables, and 9 references, 4 of which are Soviet.

SUBMITTED: February 22, 1957

1. Toluidines--Spectra 2. Cyclohexanones--Spectra 3. Toluidines --Properties 4. Cyclohexanones--Properties 5. Spectrophotometers --Performance

Card 4/4

AUTHORS: Nikol'skiy, B. P., Pal'chevskiy, V. V. SOV/76-32-9-27/47

TITLE: Absorption Spectra of Methylene and Toluidine Blues (Spektry pogloshcheniya metilenovogo sinego i toluidinovogo sinego)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 9, pp 2123 - 2128 (USSR)

ABSTRACT: The absorption spectra of the dyes in aqueous solution of 20 ± 2° C were measured with the spectrophotometer CΦ-4. The measurings were done with special accuracy in the neighbourhood of the maxima (accuracy ± 0,3 - 0,4%). The spectra are plotted and are described in the text (methylene blue, pH =1,93; c= 1,0.10^{-5} M in figure 1; toluidine blue, pH= 2,94; c= 8,26.10^{-6} M in figure 2). The maximum within visible range is displaced to lower wave-lengths with growing ion-strength and at constant pH (Figure 2). The molar absorption coefficients of the two main maxima are reproduced in table 3. The optical density is in linear proportion to the ion-strength of the solution (Fig 3). As characteristic quantity the authors propose the molar coefficient at ion-strength zero

Card 1/2

Absorption Spectra of Methylene and Toluidine Blues SOV/76-32-9-27/46

(infinite dilution). It amounts to 71 000 for methylene blue, as proved by extrapolation in figure 3. There are 3 figures, 3 tables, and 24 references, 6 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: April 12, 1957

Card 2/2

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

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

(Benzoic acid) (Hydrogen ion concentration)

PAL'CHEVSKIY, V.V.; ARSENKOV, R.T.

Spectrophotometric determination of the dissociation constants of a dibasic acid. Vest.LGU 15 no.10:98-103 '60.
(MIRA 13:5)
(Acids--Basicity) (Benzoic acid--Spectra)

NIKOL'SKIY, B.P.; PAL'CHEVSKIY, V.V.; GORBUNOVA, R.G.

Study of the formation of acetate complexes in a ferric-ferrous system by means of the oxidation potential. Zhur. neorg. khim. 6 no.3:606-612 Mr '61. (MIRA 14:3)
(Complex compounds) (Electromotive force)
(Iron compounds)

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)

PAL'CHEVSKIY, V.V., ZAKHARIYEVSKIY, M.S., KALIYARSKAYA, T.M.

Dissociation constant of methyl orange. Vest. LGU 13 no.16: 96-100 '58. (MIRA 11:8)

(Methyl orange) (Dissociation)

PAL'CHEVSKIY, V.V.; SMOLYAKOV, B.S.

Change of electronic absorption spectra under the effect of some indifferent substances added. Part 1: Spectra of solvated anions. Vest. LGU. 18 no.16:110-114 '63. (MIRA 16:11)

PAL'CHEVSKIY, V.V.; SMOLYAKOV, B.S.

Change in the electron absorption spectrum of the 2-hydroxy-1,4-naphthoquinone due to the addition of indifferent substances to the solution. Opt. i spektr. 17 no.4:515-521 O '64. (MIRA 17:12)

ZAKHAR'YEVSKIY, M.S., [illegible]

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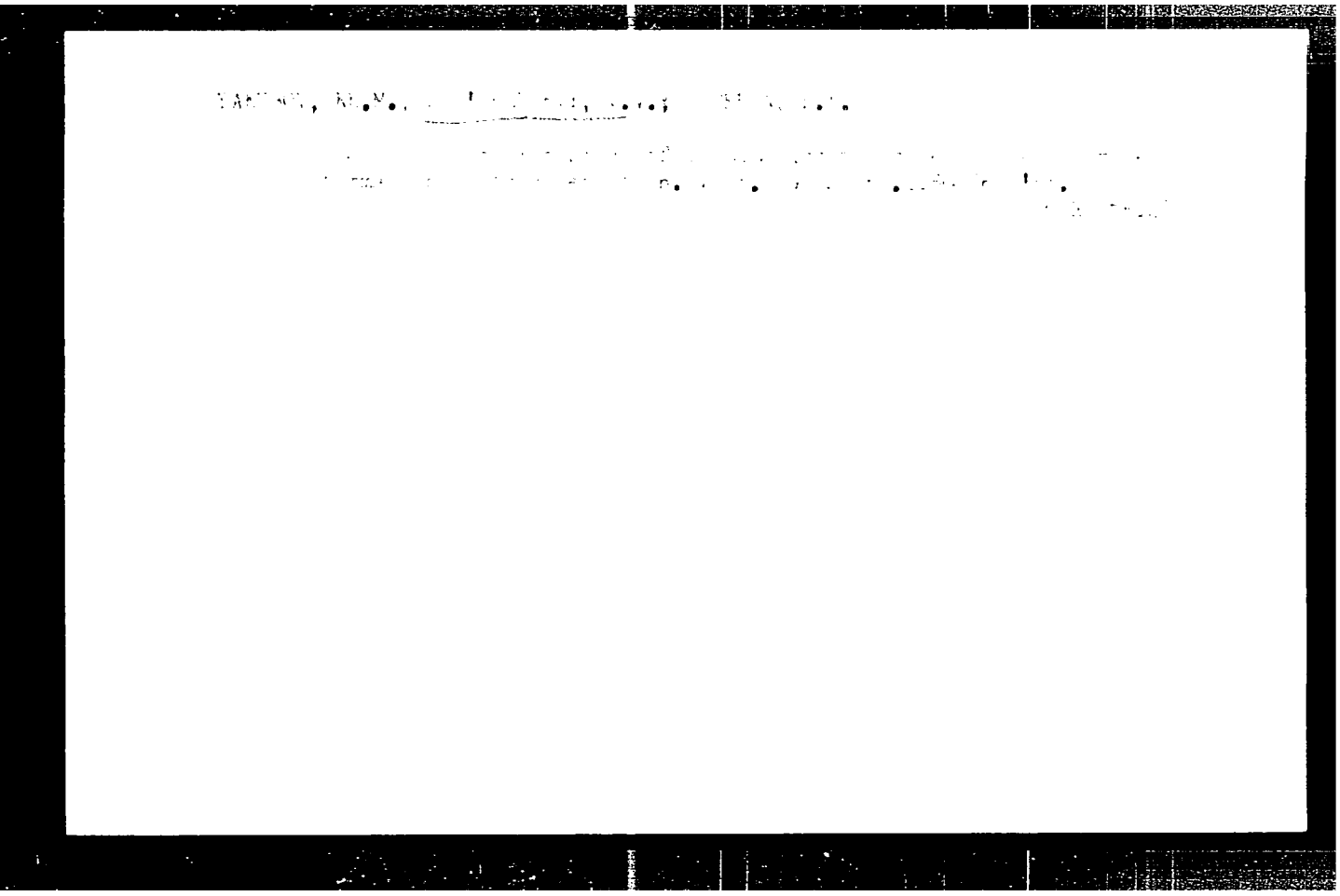

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