L 1358[illegible]-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG/IM
ACCESSION NR: AP3005223 S/0089/63/015/002/0146/0151

AUTHORS: Parlag, A. M.; Suvorov, A. D.; Shkoda-Ul'yanov, T. A.; Shabalina, L. A.

TITLE: Computation of photoneutron yield from mixtures of SiO sub 2 with small amounts of beryllium, water, lithium, carbon, uranium and thorium

SOURCE: Atomnaya energiya, v. 15, no. 2, 1963, 146-151

TOPIC TAGS: SiO sub 2, photoneutron yield, photoneutron, beryllium, water, lithium, carbon, uranium, thorium

ABSTRACT: The avalanche theory of Belenkiy and Tamm (see the article by S. Z. Belenkiy and I. P. Ivanenko, Uspekhi fiz. nauk, 19, 1959, 632) is applied for the computations of the yield curves for the photoneutrons from mixtures described in the title. The computation was made for irradiation by both electrons and neutrons. The results are given in 5 tables for mixtures of several elements, and in 2 figures for mixtures of sand with 1% of only one element. The photoneutron method might find an application in the analysis of lithium, uranium, and thorium in ores. Orig. art. has: 2 figures and 5 tables.

ASSOCIATION: none

Card 1/[illegible]

S/058/62/000/012/011/048
A160/A101

AUTHORS: Parlag, A. M., Sikora, D. I., Shkoda-Ul'yanov, V. A.

TITLE: Faraday's cylinder is an electron-beam monitor and a photoneutron source

PERIODICAL: Referativnyy zhurnal, Fizika, no. 12, 1962, 13, abstract 12B92 (In collection: "Elektron. Uskoriteli", Toms, Tomskiy un-t, 1961, 189 - 191)

TEXT: To investigate the excitation functions of photoneutron reactions, it is proposed to use a single-energy electron beam, and a thick-walled Faraday's cylinder - as a monitor and as a sample for investigation. Presented is the block diagram of the instrument for the rigorous integration of the electron beam captured by Faraday's cylinder. A few corrections are indicated, which have to be considered when measuring photoneutrons.

A. Parlag

[Abstracter's note: Complete translation]

Card 1/1

DOROSH, M.M.; PARLAG, A.M.; SHKODA-UL'YANOV, V.A.; SHABALINA, L.A.

Contradictory results of measuring the cross section of the (γ, n)-reaction for lead. Zhur. eksp. i teor. fiz. 46 no.5:1540-1544 My '64. (MIRA 17:6)

1. Uzhgorodskiy gosudarstvennyy universitet.

L 2840-65 EWT(m)/EWA(h) SSD/AFWL/AFETR/ASD(a)-5/RAEM(a)/ESD(gs)/ESD(t)
ACCESSION NR: AT4046100 S/3114/61/000/004/0003/0006

AUTHOR: Mazyukevich, N. P.; Perlag, A. M.; Shkoda-Ul'yanov, V. A. 19 B

TITLE: The possibility of using photonuclear reactions to distinguish an oil-water contact

SOURCE: Uzhgorod. Universitet. Doklady* i soobshcheniya. Seriya fiziko-matematicheskikh nauk, no. 4, 1961, 3-6

TOPIC TAGS: oil water interface, photon beam, electron beam, deuterium, photonuclear reaction, prospecting, petroleum detection

ABSTRACT: In previous papers, the use of electron beams in oil prospecting was evaluated on the basis of the theoretical emission of photoneutrons from infinite blocks of water and oil under the influence of a stream of electrons. For lower energy regions, the emission of photoneutrons due to the deuterium in the water and oil and the C^{13} in the oil was calculated. In the present paper, since electron beams are now seldom used, the authors calculate photoneutron emission from the water and oil under the influence of a beam of photons, applying the Belen'kiy-Tamm theory for the energy range 2.25-15 Mev. It was found that the emission of photoneutrons from the oil and water differs only negligibly in the region 2.25-5 Mev. However, if the higher deuterium content in the hydrogen of the oil in comparison

Card 1/2

L 12840-65
ACCESSION NR: AT4046100

3

with the water is taken into account, then the difference in emissions becomes sufficiently large to distinguish between the oil and the water. Since the difference is still small, and since the threshold for the formation of photoneutrons from C^{13} is $\sim$ 5 Mev, the most convenient range of photon energies for petroleum prospecting seems to be 7 Mev. "The authors thank M. K. Magdinets and I. D. Orlova for their help in carrying out the numerical calculations." Orig. art. has: 1 figure, 1 table, and 1 formula.

ASSOCIATION: Uzhgorodskiy gosuniversitet (Uzhgorod State University)

SUBMITTED: 00 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 005 OTHER: 002

Card 1/2

PARLAG, A.M.; SUVOROV, A.D.; SHKODA-UL'YANOV, V.A.; SHABALINA, L.A.

Calculating the photoneutron yields from mixtures of SiO_2 with small quantities of beryllium, water, lithium, carbon, uranium, and thorium. Atom. energ. 15 no.2:146-151 Ag '63. (MIRA 16:8)
(Neutrons) (Silicon oxide)

ACCESSION NR: AP4037562 S/0056/64/046/005/1540/1544

AUTHOR: Dorosh, M. M.; Parlag, A. M.; Shkoda-Ul'yanov, V. A.; Shabalina, L. A.

TITLE: On contradictory results of measurements of the (Gamma, n) reaction cross sections for lead

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 5, 1964, 1540-1544

TOPIC TAGS: lead, gamma neutron reaction, cascade, gamma quantum, photoneutron

ABSTRACT: In view of the disparity between the experimental yields for heavy and medium-Z elements at low energies and the values calculated by the Belen'kiy-Tamm cascade theory, an experiment was set up to measure the cross sections of the (γ, n) reaction on lead, induced by bremsstrahlung, since the published data for the cross section of some elements, including lead, are contradictory. The mea-

Card 1/5

ACCESSION NR: AP4037562

surements were made with a 25-MeV betatron with a tungsten target. The neutrons were registered with a setup analogous to that described by Gavrilov and Lazareva (ZhETF v. 30, 855, 1956). The cross section obtained in the maximum was 0.65 b, coinciding with the value obtained by means of monochromatic γ quanta. A comparison of the calculations of the photoneutron yield with the aid of the obtained cross section and with the experimental data of Grizhko et al. (ZhETF, v. 38, 1370, 1960) confirms the discrepancy between theory and experiment. It is therefore suggested that the Belen'kiy-Tamm spectrum is not accurate in the energy region in question, greatly distorting the (γ, n)-reaction cross section both in form and in absolute magnitude. The reasons for the observed discrepancies are now under investigation. Orig. art. has: 2 figures.

ASSOCIATION: Uzhgorodskiy gosudarstvenny*y universitet (Uzhgorod State University)

Card 2/5

ACCESSION NR: AP4037562

SUBMITTED: 20Jul63 DATE ACQ: 09Jun64 ENCL: 02

SUB CODE: NP NR REF SOV: 007 OTHER: 006

Card 3/5

S/[illegible]
A060/A126

AUTHORS: Gol'danskiy, V. I., Darbinyan, A. M., Sikora, D. I., Shkoda-Ul'yanov, V. A.

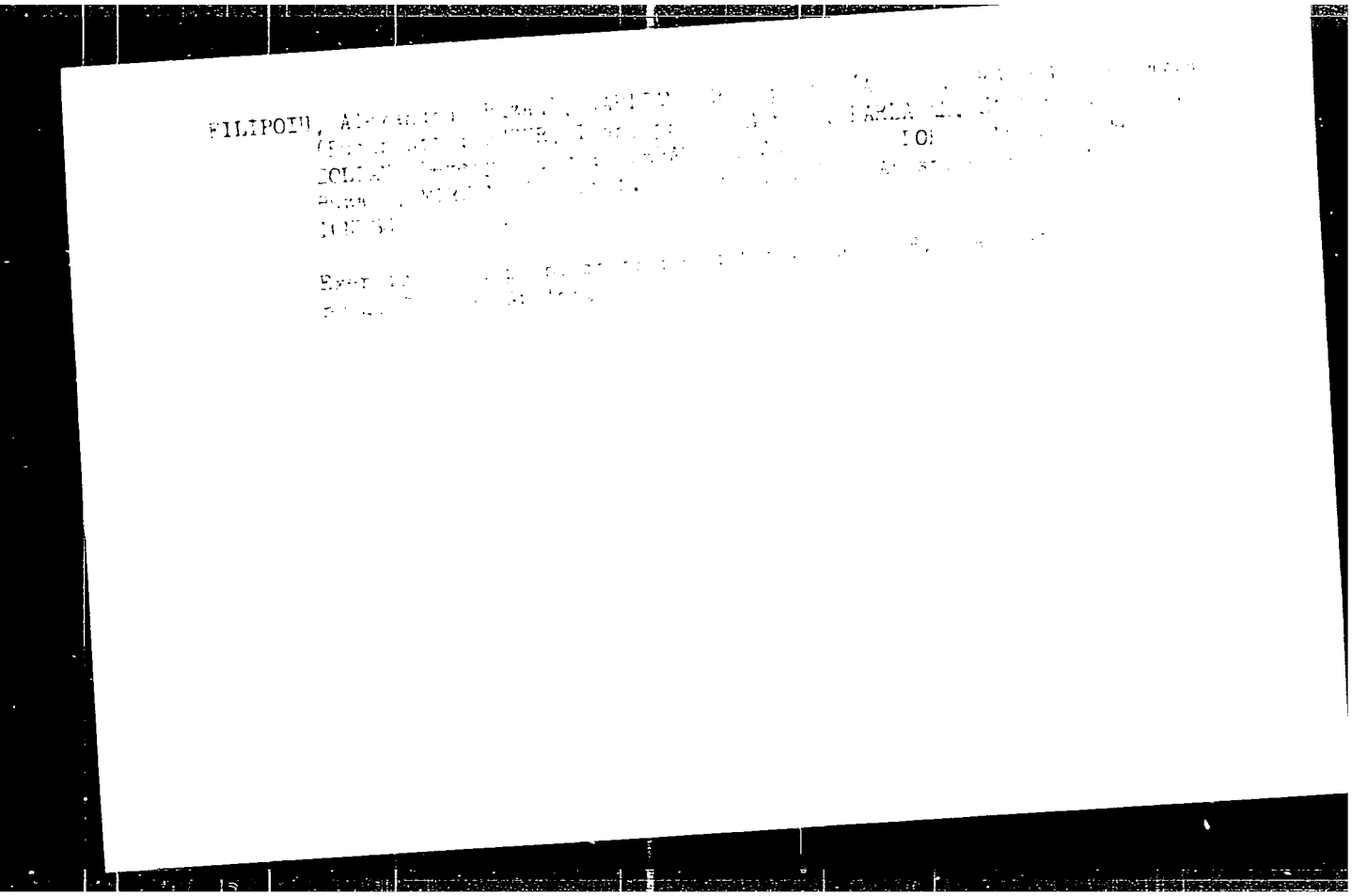
TITLE: The use of the "equilibrium spectrum" of photons for calculating (γn)-reaction cross sections from neutron yield curves for heavy elements by the "photon difference" method

SOURCE: Uzhgorod. Universitet. Nekotoryye problemy sovremennoy fiziki yadra i elementarnykh chastits; sbornik statey, no. 1, 1957, 73 - 85

TEXT: A comparison between the results of previous papers (V. A. Shkoda-Ul'yanov. O novom metode opredeleniya secheniy reaktsiy - A new method of determining reaction cross sections. Nauchnyye zapiski Uzhgorodskogo Gosudarstvennogo universiteta, v. 16, 1956; V. I. Gol'danskiy and V. A. Shkoda-Ul'yanov. ZhETF, 28, 677 (1955)) and data published by L. Katz and A. G. Cameron (Can. J. Phys., 29, 518 (1951) shows that the photon difference method is a suitable means for calculating

Card 1/2

[illegible] n-reaction cross sections from the excitation curves obtained for thick specimens. It is noted that a tabular form of the function $I(\varepsilon, \varepsilon_0)$ is particularly convenient for the purpose. A table of this function for photon energies ranging from 0.25 to 27.75 Mev is presented in an appendix. There is 1 table.



PARLAPANOVA, M.

"Reasons for Warp Breaking in Silk Weaving."

p. 18 (Elektroenergiia, Vol. 7, No. 1, 1958, Sofiia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 11, Nov. 1958.

PARLAPANOVA, Mariia, inzh., nauchen sutrudnik

Effectiveness of the introduction of warp thread feelers in the looms for woolen fabrics. Tekstilna prom 11 no.5:19-22 '62.

1. Nauchnoizsledovatelski institut za trikotazhna promishlenost, Sofiia.

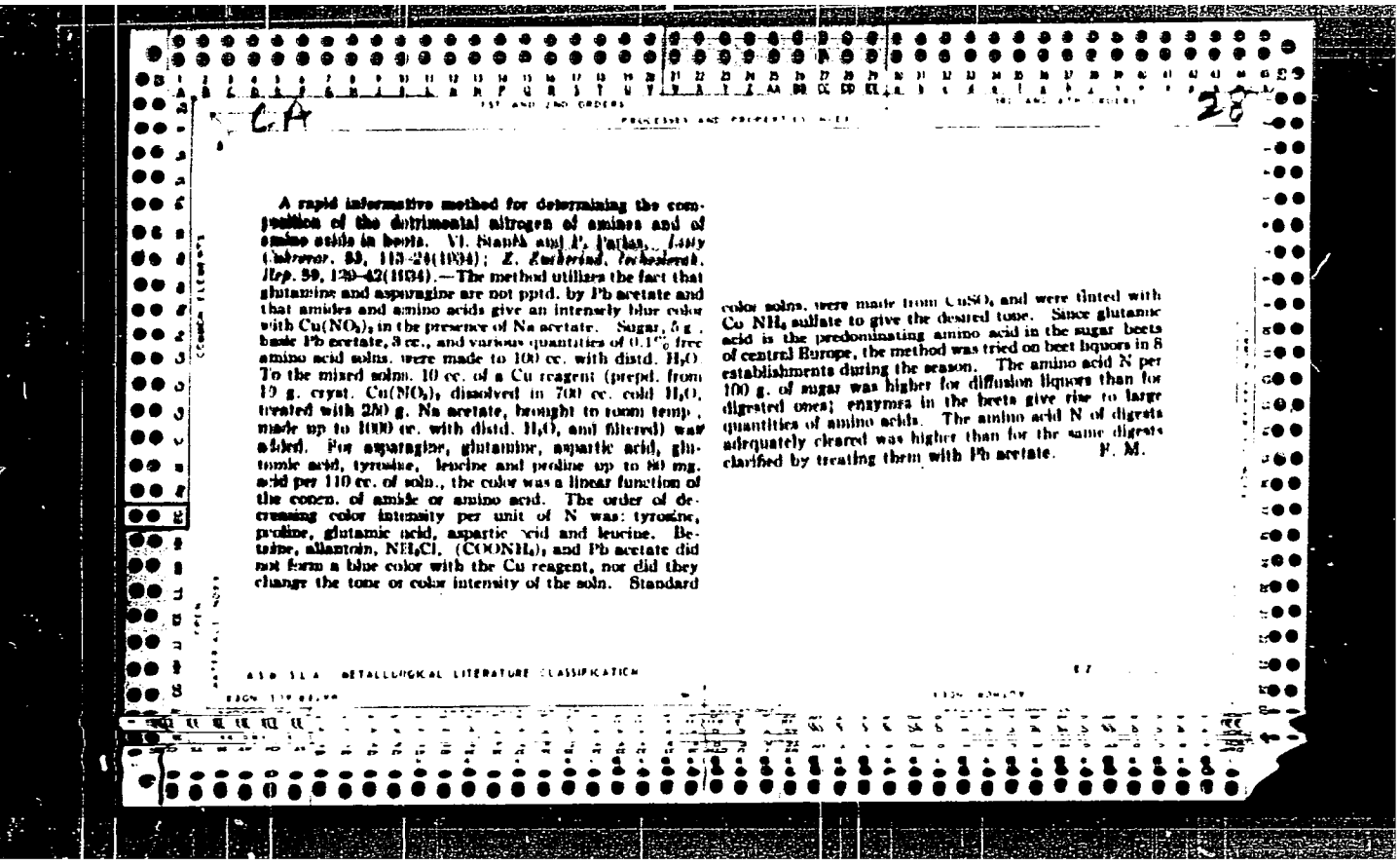
PARLAPANOVA-GEORGIEVA, M.

Construction of an electrical apparatus (E-16) for the obtaining of a new type of alternating low frequency complex periodical nonsinusoid current. The mechanism of its physiological action and therapeutic use. Nauch. tr. vissh. med. inst. Sofia 41 no.3:63-75 '62.

1. Predstavena ot prof. S. Davidov.
(ELECTROTHERAPY)

[illegible], K.

Rapid determination of moisture in powdery and loose materials.
Khim i industriia 36 no.6:227-228 '64.



CA

20

A rapid informative method for determining the composition of the nutrimental nitrogen of amines and of amino acids in beets. VI. Stanek and F. Partan. *Listy Cukrovar.* **50**, 113–24(1934); *Z. Zuckerind. Tschechoslovak. Rep.* **59**, 139–42(1934).—The method utilizes the fact that glutamine and asparagine are not pptd. by Pb acetate and that amides and amino acids give an intensely blue color with $Cu(NO_3)_2$ in the presence of Na acetate. Sugar, 5 g., basic Pb acetate, 3 cc., and various quantities of 0.1% free amino acid solns. were made to 100 cc. with distd. H_2O. To the mixed solns. 10 cc. of a Cu reagent (prepd. from 19 g. cryst. $Cu(NO_3)_2$ dissolved in 700 cc. cold H_2O, treated with 200 g. Na acetate, brought to room temp., made up to 1000 cc. with distd. H_2O, and filtered) was added. For asparagine, glutamine, aspartic acid, glutamic acid, tyrosine, leucine and proline up to 80 mg. acid per 110 cc. of soln., the color was a linear function of the concn. of amide or amino acid. The order of decreasing color intensity per unit of N was: tyrosine, proline, glutamic acid, aspartic acid and leucine. Betaine, allantoin, NH_4Cl, $(CONH_2)_2$ and Pb acetate did not form a blue color with the Cu reagent, nor did they change the tone or color intensity of the soln. Standard color solns. were made from $CuSO_4$ and were tinted with $Co\ NH_4$ sulfate to give the desired tone. Since glutamic acid is the predominating amino acid in the sugar beets of central Europe, the method was tried on beet liquors in 8 establishments during the season. The amino acid N per 100 g. of sugar was higher for diffusion liquors than for digested ones; enzymes in the beets give rise to large quantities of amino acids. The amino acid N of digests adequately cleared was higher than for the same digests clarified by treating them with Pb acetate. F. M.

A10 S1A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES

32

28

A rapid and approximate determination of invert sugar in raw sugar. Petr Parlan. *Listy Cukrovar.* **51**, 45-7(1932). Freshly crystd. methylene blue, 1 g., is dissolved in 300 cc. hot water and made up to 1 l. Anhyd. Na_2CO_3 200 g. is dissolved in 800 cc. hot H_2O and made up to 1 l. Equal vols. of the methylene blue and Na_2CO_3 solns. are mixed just prior to use. Raw sugar 10 g. is washed with 50 cc. H_2O into a 200-cc. Erlenmeyer flask and brought to boiling in 4-5 min. Just as boiling commences 1 cc. of the mixed methylene blue and Na_2CO_3 solns. is added and the time is noted. The green-blue soln. becomes a dirty yellow when the reduction of the methylene blue is complete. The time required for the reduction of methylene blue is an index of the mg. of Cu reduced according to Herzfeld. During the heating, a pinch of $CaCO_3$ or $NaHCO_3$ is added to prevent inversion before boiling begins. A period of 80 sec. is the borderline between good and bad sugars and corresponds to 0.018% invert sugar or a reduction of 40 mg. of Cu. Solns. free from invert sugar reduced the methylene blue in 200-240 sec.

Frank Maresh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

28

CA

A rapid and approximate determination of invert sugar in raw sugar. Petr Parlas. Listy Cukrovar. 51,45-7(1932).—Freshly crystd. methylene blue, 1 g., is dissolved in 300 cc. hot water and made up to 1 l. Anhyd. Na_2CO_3 200 g. is dissolved in 800 cc. hot H_2O and made up to 1 l. Equal vols. of the methylene blue and Na_2CO_3 solns. are mixed just prior to use. Raw sugar 10 g. is washed with 50 cc. H20 into a 200-cc. Erlenmeyer flask and brought to boiling in 4-5 min. Just as boiling commences, 1 cc. of the mixed methylene blue and Na_2CO_3 solns. is added, and the time is noted. The green-blue soln. becomes a dirty yellow when the reduction of the methylene blue is complete. The time required for the reduction of methylene blue is an index of the mg. of Cu reduced according to Herzfeld. During the heating, a pinch of $CaCO_3$ or $NaHCO_3$ is added to prevent inversion before boiling begins. A peroid of 80 sec. is the borderline between good and bad sugars and corresponds to 0.018% invert sugar or a reduction of 40 mg. of Cu. Solns. free from invert sugar reduced the methylene blue in 200-240 sec.

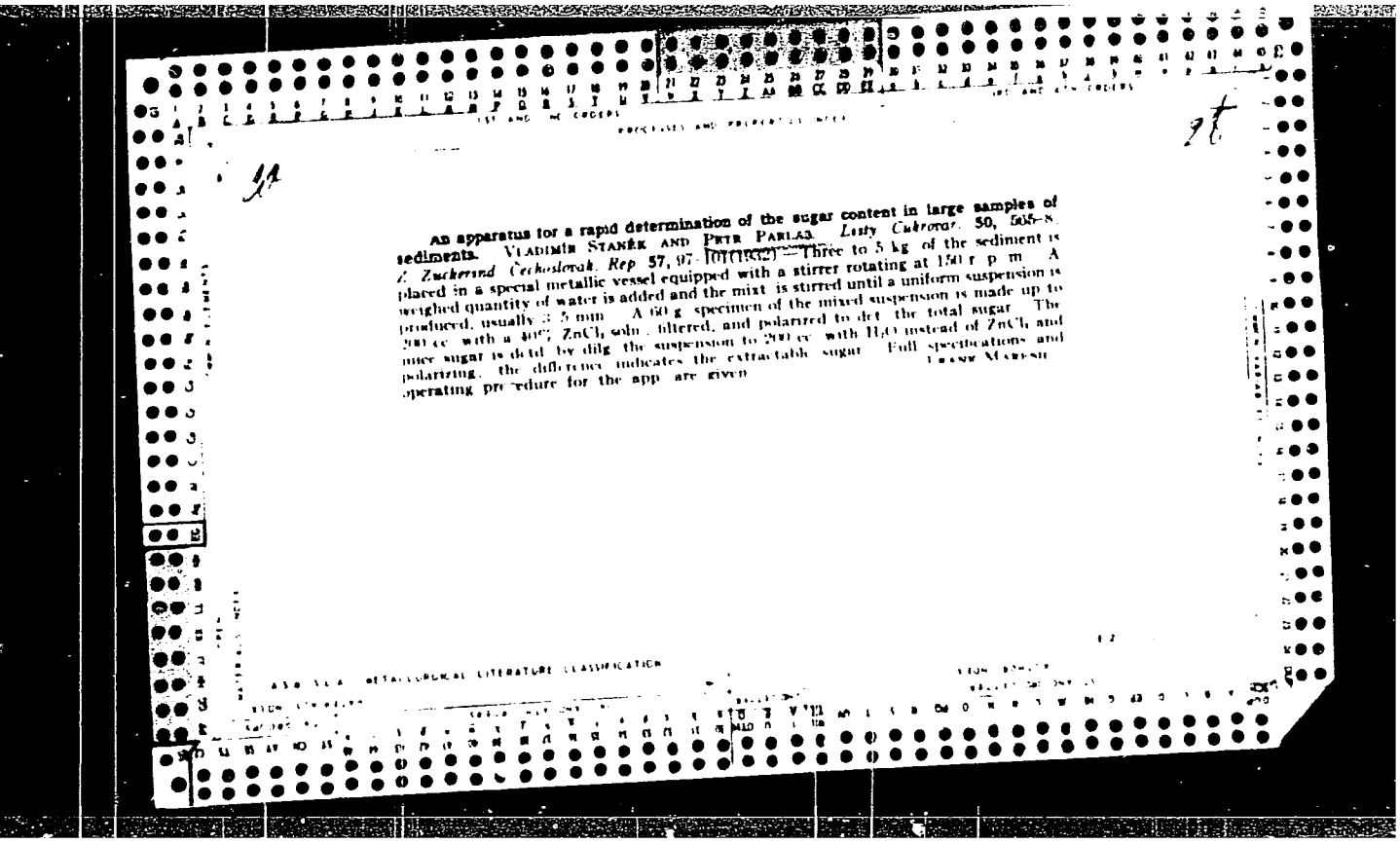
Frank Maresh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

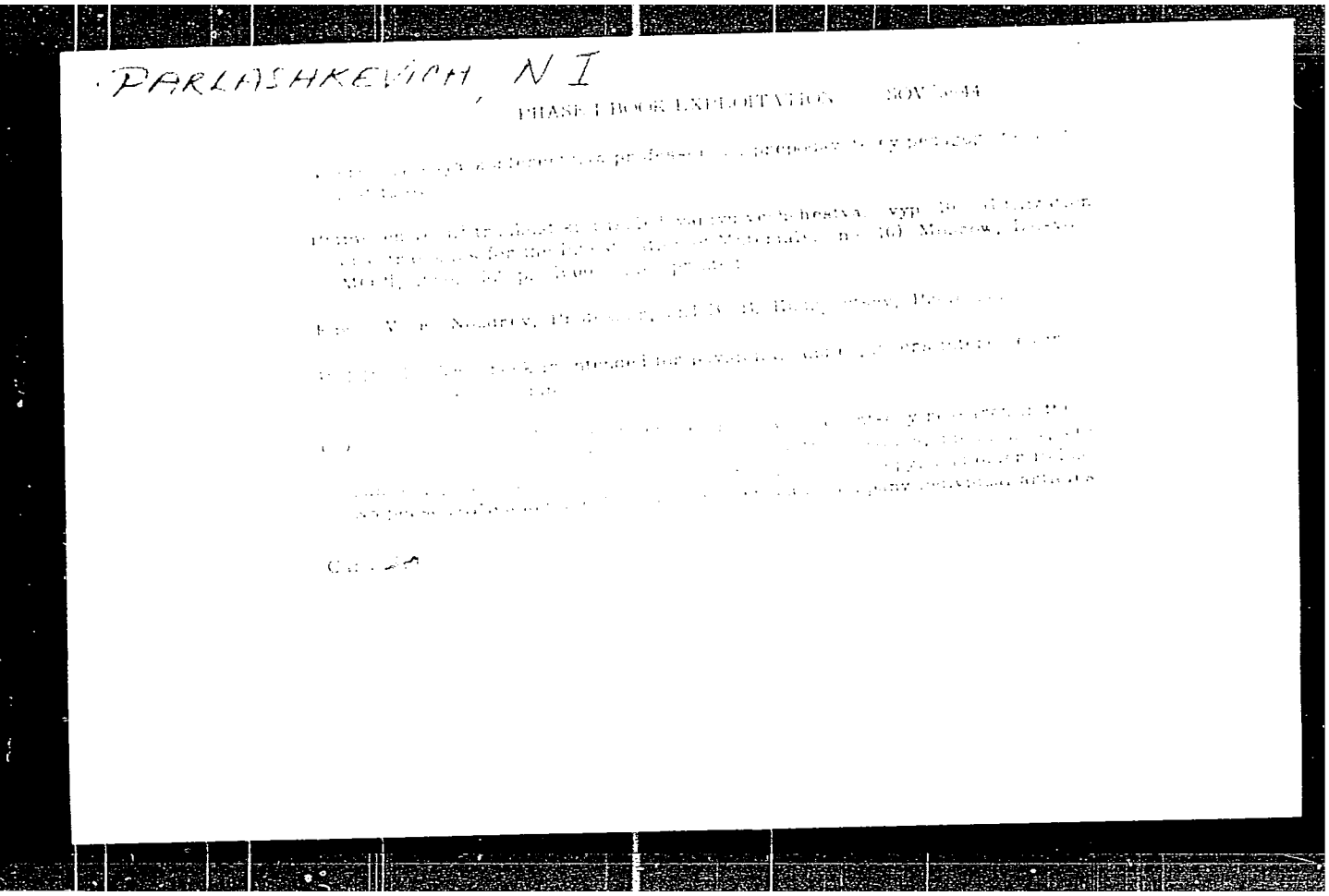
28

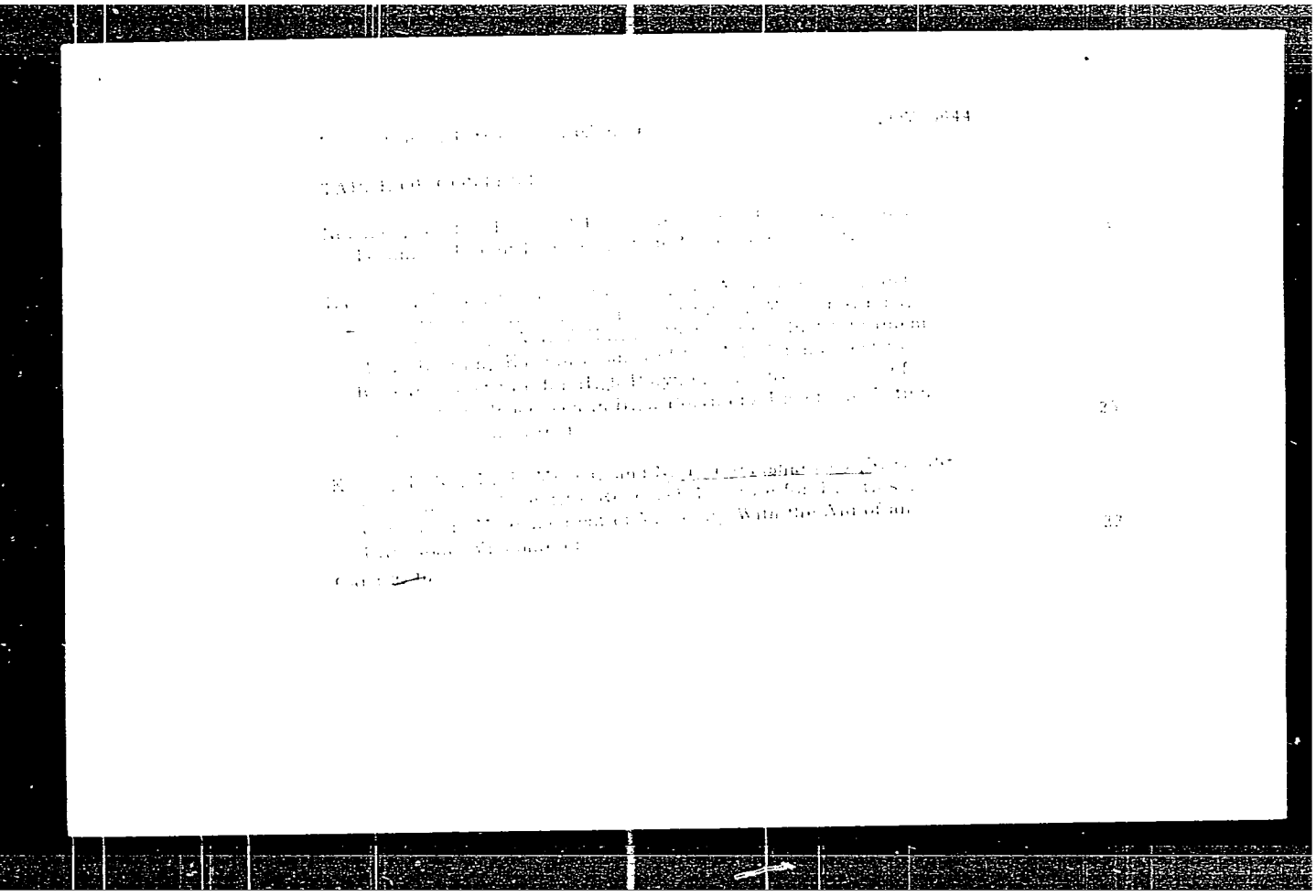
An apparatus for a rapid determination of the sugar content in large samples of sediments. Vladimir Stanek and Petr Pavlas. *Listy Cukrovar.* **50,** 595-8; *Z. Zuckerind. Czechoslovak. Rep.* **57,** 97-101(1932). Three to 5 kg. of the sediment is placed in a special metallic vessel equipped with a stirrer rotating at 170 r.p.m. A weighed quantity of water is added and the mixt. is stirred until a uniform suspension is produced, usually 3-5 min. A 60-g. specimen of the mixed suspension is made up to 200 cc. with a 40% $ZnCl_2$ soln., filtered, and polarized to det. the total sugar. The juice sugar is detd. by dilg. the suspension to 200 cc. with H_2O instead of $ZnCl_2$ and polarizing; the difference indicates the extractable sugar. Full specifications and operating procedure for the app. are given. Frank Maresh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



An apparatus for a rapid determination of the sugar content in large samples of sediments. VLADIMÍR STANĚK AND PETR PARLAS. *Listy Cukrovar.* 50, 505–8. *Z. Zuckerind. Cechoslovak. Rep.* 57, 97. [01(1932)] Three to 5 kg. of the sediment is placed in a special metallic vessel equipped with a stirrer rotating at 150 r. p. m. A weighed quantity of water is added and the mixt. is stirred until a uniform suspension is produced, usually 3–5 min. A 60 g. specimen of the mixed suspension is made up to 200 cc. with a 40% $ZnCl_2$ soln., filtered, and polarized to det. the total sugar. The juice sugar is detd. by dilg. the suspension to 200 cc. with H_2O instead of $ZnCl_2$ and polarizing. the difference indicates the extractable sugar. Full specifications and operating procedure for the app. are given.





UDINTSEV, G.N.; ANAN'INA, Z.N.; ANDREYEVA, A.G.; BLANK, V.B.; GAYLAN, Ya.I.; YEGOR'KOVA, A.S.; ZUBZHITSKIY, Yu.N.; IL'INA, N.D.; KAMRAZ, I.V.; KARRO, L.M.; MIROYEVSKAYA, Z.Ye.; NECHAYEVA, Ye.A.; PARNOV, B.S.

Influenza in 1957 from data of the hospital therapeutic clinic of the Leningrad Institute of Sanitation and Hygiene. Sov.med. 23 no.10:67-70 O '59. (MIRA 13:2)

1. Iz gospital'noy terapevticheskoy kliniki (zaveduyushchiy - chlen-korrespondent AMN SSSR prof. G.N. Udintsev) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(INFLUENZA statistics)

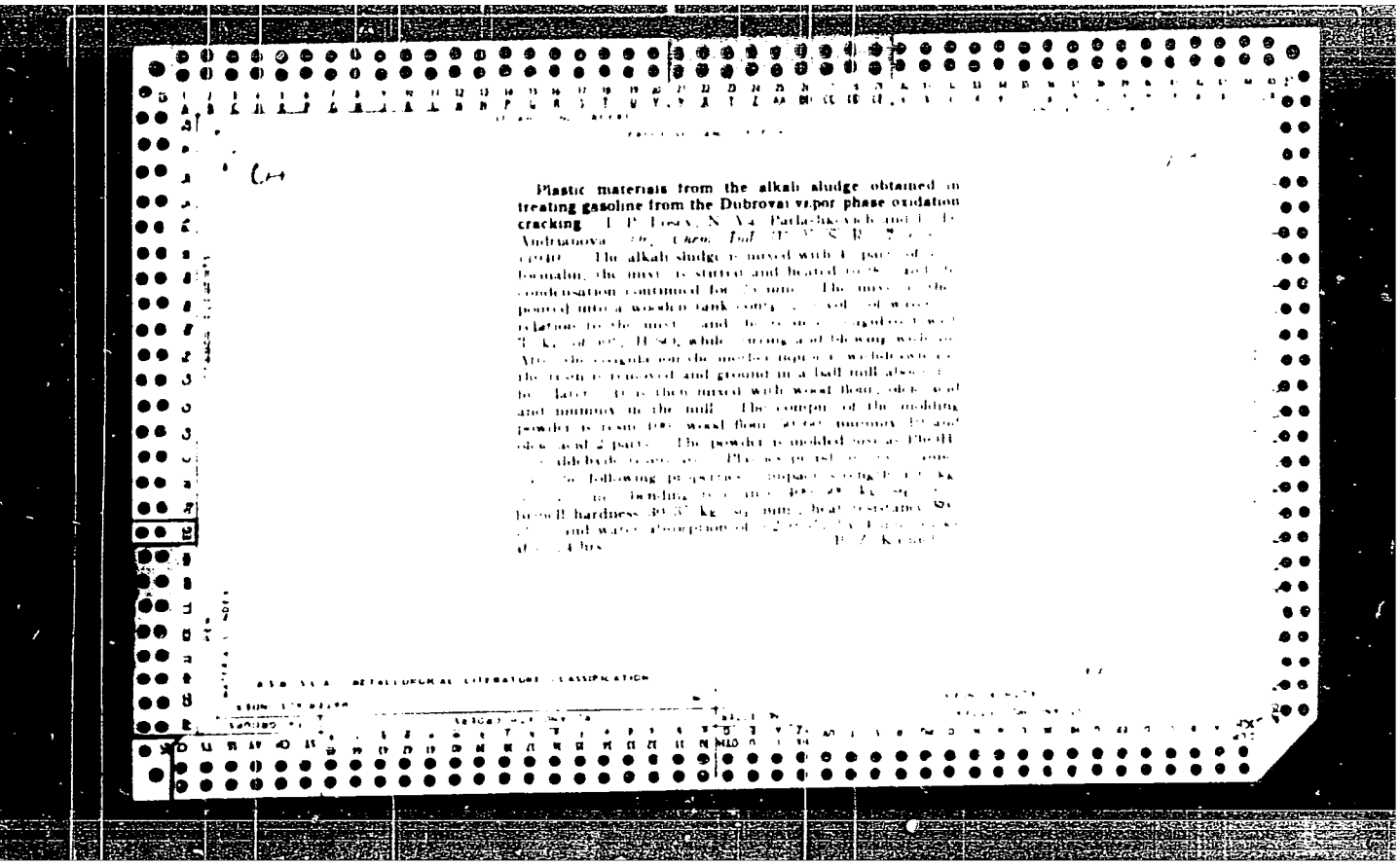
PARKOV, V., podpolkovnik

Book about a heroic pilot ("Viktor Talalikhin" by S. Utekhin). Reviewed by V. Parkov. Kryl.rod. 12 no.8:24 Ag '61. (MIRA 14:8)
(World War, 1939-1945--Aerial operations.)
(Utekhin, S.)

GOMAHAY, V.I.; KRIBSKIY, I.Yu.; RYZHKINA, N.V.; SHKODA-UL'YANOV, V.A.
PAHL G., I.M.

Delineation of oil-bearing and water-bearing strata by means of electron and photon beams. Atom.energ. 9 no.4:313-315 O '60.
(MIRA 13:9)

(Carbon--Isotopes)
(Oxygen--Isotopes)
(Petroleum)



Plastic materials from the alkali sludge obtained in treating gasoline from the Dubrovai vapor phase oxidation cracking

[illegible]EVICH, [illegible]. Ya., [illegible]

"Shellac Free Record [illegible]" Khim. [illegible]., [illegible] 11, [illegible], 1946.

Recordings [illegible] and [illegible] of a comp[illegible] 18, [illegible] black [illegible], [illegible] stearate [illegible], and [illegible] and pressed at 115-[illegible]

PARLASHKEVICH, N. Ya.

USSR/Chemistry - Instruments, Pr[illegible] FD 17[illegible]

Card [illegible]

Author : Par[illegible]kev[illegible], N. Ya., [illegible]

Title : Aut[illegible]mat[illegible] [illegible]

Periodical : Khim. [illegible]

Abstract : [illegible] process, which are [illegible] ... creases the capacity [illegible] ... reduces the [illegible] ... zation [illegible] ... by [illegible] figures. [illegible] ... foreign references [illegible]

Institution : Se[illegible] [illegible] ... ment Khim V[illegible]

Parlashkevich, N. Ya

USSR Chemistry - Phenol, production of

Card 1/1 Pub. 50 - 9/19

Authors : Levin, E. S., Avakyan, N. I., Parlashkevich, N. Ya

Title : Automatic potentiometric control of the decomposition of [illegible] phenolate

Periodical : Khim. prom., No 7, 415-417 (91-94), Oct-Nov 1956

Abstract : Describes automatic potentiometric control of the decomposition of sodium phenolate into phenol and sodium sulfite with the aid of sulfur dioxide and water. An antimony electrode is used to determine the end point of neutralization. Seven references, 6 USSR and one since 1940. One table, 5 graphs, 2 figures.

Institution : State Scientific Research Institute of Organic Intermediates and Dyestuffs.

PARLASHKEVICH, N.Ya.; VYKHODTSEV, I.A.; ZELTON, N.D.

Automatic potentiometric control in the production of [illegible].
Khim.prom.no.4:242-244 Je '56. (MLRA 9:8)
(Potentiometric analysis) (Toluidine) (Electrodes)