

Handbook on Industrial (Cont.)

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AVAILABLE: Library of Congress

JG/mal  
7-16-59

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ERMAN, Iosif Mikhaylovich, doktor med. nauk; RAYLO, P.I., red.;  
BRUSHTEYN, A.I., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Mechanization, automation, and improved sanitation of work  
conditions in ferrous metallurgy] Mekhanizatsiia, avtomatiza-  
tsiia proizvodstva i ozdorovlenie uslovii truda v chernoi me-  
tallurgii. Moskva, Metallugizdat, 1962. 59 p. (MIRA 15:7)

(Iron industry--Hygienic aspects)  
(Steel industry--Hygienic aspects)  
(Automation)

RAYLO, P.I.; ZHILO, M.Ye.; BRUSHTYIN, A.I., red. izd-va; DOBJZHINSKAYA,  
L.V., tekhn. red.

[Handbook on labor protection and safety engineering] Spravochnik  
po okhrane truda i tekhnike bezopasnosti [Sost. P.I. Railo, M.E.  
Zhilo] Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i  
tsvetnoi metallurgii, 1958. 470 p. (MIRA 12:1)  
(Metallurgical plants--Safety measures)

*Raylo (PI)*  
MALYKH, Aleksandr Aleksandrovich; SPIRINA, Anna Maksimovna; SMOL'NIKOV,  
Nikolay Ivanovich; RAYLO, P.I., red.; KHUTORSKAYA, Ye.S., red.  
izd-va; MIKHAYLOVA, V.V., tekhn.red.

[Safety measures in open-hearth furnace ships] Okhrana truda v  
martencvskikh tsekhakh. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry  
po chernoi i tsvetnoi metallurgii, 1957. 194 p. (MIRA 11:5)  
(Open-hearth furnaces--Safety measures)

RAYKHER, S.A.; RAYLO, P.I.

"Principles of safety techniques" B.M. Zlobinskii. Reviewed  
by S.A. Raikher, P.I. Railo. Stal' 16 no.7:668-669 J1 '56.  
(MLRA 9:9)

1. Ministerstvo chernoy metallurgii SSSR.  
(Metallurgical plants--Safety measures)  
(Zlobinskii, B.M.)

BERG, I.A., inzhener; RAYLO, P.I., redaktor; AVRUTSKAYA, R.F., redaktor;  
BEKKER, O.G., tekhnicheskii redaktor

[Safety engineering in the metallurgy of ferrous metals] Tekhnika  
bezopasnosti v chernoi metallurgii. Moskva, Gos. nauchno-tekhn.  
izd-vo po chernoi i tsvetnoi metallurgii, 1954. 205 p. (MLRA 7:9)  
(Metallurgy--Safety measures)

MALYKH, Aleksandr Aleksandrovich; ~~RAYLO, P. I.~~ redaktor; AVRUTSKAYA, R.F.,  
redaktor izdatel'stva; MIKHAYLOVA, V.V., tekhnicheskii redaktor

[Labor protection during the repair of blast furnaces] Okhrana truda  
pri remonte martenovskikh pechei. Moskva, Gos. nauchno-tekhn. izd-vo  
lit-ry po cherno i tsvetnoi metallurgii, 1955. 114 p. (MLRA 9:12)  
(Blast furnaces--Repairing)

RAYLO, P.I.; ZHILU, M.Ye.; BRUSHTEY N, A.I., red. izd-va; DOBUZHINSKAYA,  
L.V., tekhn. red.

[Manual for labor protection and safety engineering] Spravochnik  
po okhrane truda i tekhnike bezopasnosti. Moskva, Metallurgizdat,  
1962. 478 p. (MIRA 15:6)  
(Industrial safety) (Industrial hygiene)

MKRTCHYAN, V.; RAYLYAN, A.

Fixture for boring camshaft bushings. MTS 18 no.8:42 Ag '58  
(MIBA 11:9)

1. Mankentskiy remontnyy zavod, Kazakhskoy SSR.  
(Drilling and boring machinery)



ALIKIN, R.I.; GORDIYENKO, P.I.; BESPROZVANNYY, I.G.; ZHIBTSOV, P.P.;  
ZOLOTAREV, P.A.; ZUSMANOVSKAYA, L.L.; IBRAGIMOV, K.G.; KOZOREZOV,  
M.A.; KOKOREV, A.T.; KUPRIANOV, Yu.V.; KUFCHKA, A.L., kand.  
tekhn. nauk; LITVINOVA, L.M.; LOZANOVSKIY, A.L., kand. tekhn.  
nauk; MAVDRIKOV, F.I.; MAKHAN'KOV, L.V.; PUKALOV, V.I.; RAYLYAN,  
A.F.; SVERDLOV, V.Ya.; SKLYAROV, B.S.; SOLOV'YEV, K.M., kand.  
tekhn. nauk; STUKALKIN, A.H.; SURGVIKOV, A.A.; TIKHONOV, N.G.;  
SHTEFENKO, P.K.; YANOV, V.P.

[V180 electric locomotive.] Electrovoz VAPO. Novocherkassk. Nauchno-  
issledovatel'skii institut elektrovozostroeniia. Sbornik nauchnykh  
trudov, vol. 5) (MIRA 18:5)

MKRTCHYAN, V.M.; RAYLYAN, A.N.

Shell casting of nozzles for andslingers and shot peening  
equipment. Lit. proizv. no. 8:46 Ag '60. (MIRA 14:2)  
(Steel castings)

RAYLIAN, N.I.

Two cases of heart wound suturing. Khirurgiia no.8:71 Ag. '55.  
(MLRA 9:2)

1. Iz khirurgicheskogo otdeleniya 3-y gorodskoy bol'nitsy  
G. Nikolayeva.  
(HEART--SURGERY)

МАТИН. 7. 8.

CHERNY, Yu. V. - Inzh. i, KLUSEV, S. L. - St. Nauchn. Sotr., RAIZAN, V. F. - Prof.

Leninradskiy filial akademii arkhitektury SSSR.

Predlozheniya po tipam konstruksiy dlya Massovogo zhilishchnogo stroitel'stva v  
Leningrade Page 68

30: Collection of Annotations of Scientific Research Work on Construction,  
completed in 1950. Moscow, 1951

SHARYY, Yuriy Vikterovich, kandidat tekhnicheskikh nauk; RAYLYAN, V.F., professor, nauchnyy redaktor; KARPOV, V.V., redaktor izdatel'stva; PUL'KINA, Ye.A., tekhnicheskiiy redaktor.

[Tower cranes in large panel construction] Bashennyye krany na krupnoblochnom stroitel'stve. Leningrad, Gos.izd-vo lit-ry po stroit. i arkhitekture, 1956. 42 p. (MLRA 9:6)  
(Cranes, derricks, etc.)

RAYLYAN, V. F.

NEKRASOV, YE. M., Kand. Tekhn. Nauk St. Nauchn. Sotr. i RAYLYAN, V. F., Prof.  
Leningradskiy filial Akademii arkhitektury SSSR

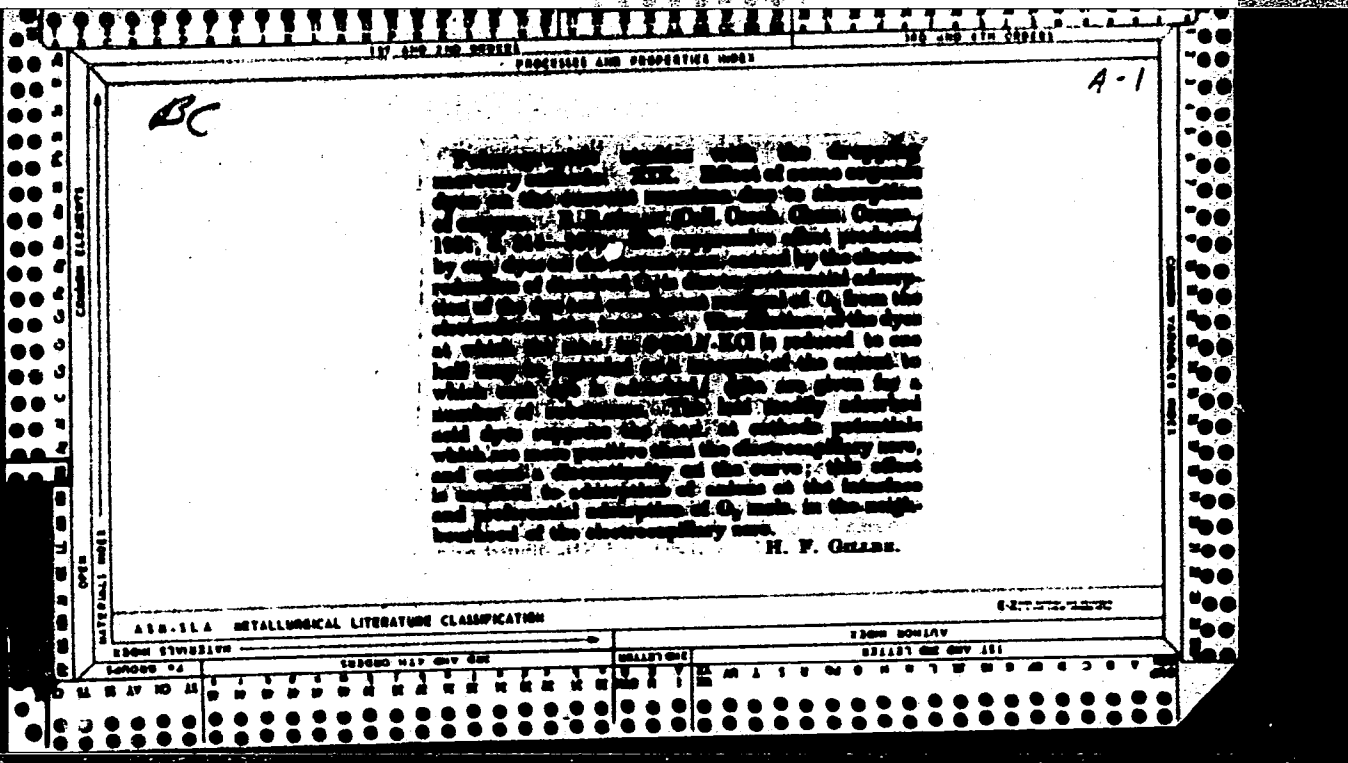
PARAMETRY POD'YEMNO-TRANSPORTNYKH MEKHANIZMOV

Page 145

SR: Collection of Annotations of Scientific Research Work on Construction,  
Completed in 1950,  
Moscow, 1951

KHRUSTALEV, S.S.; RAYLYAN, V.F., professor, redaktor.

[Using gypseous stone for building facings] Primenenie gipsovogo kamnia dlia  
otdelki zdani. Pod red. V.F.Railiana. Leningrad, Gos.izd-vo lit-ry po  
stroitel'stvu i arkhitekture, 1953. 41 p. (MIRA 6:12)  
(Gypsum) (Façades)





Country : HUNGARY  
Category: Cultivated Plants. Fruits. Berries.

M

Abs Jour: RZhBiol., No 22, 1958, No 100444

Author : Rayman, Janos  
Inst :                       
Title : Diseases of Fruit Trees in Connection with  
Micronutrient Deficiency.

Orig Pub: Kerteszeti es szőlészeti, 1958, 7, No 1, 8-9

Abstract: No abstract.

Card : 1/1

KATS, A.; KRICHEVSKIY, I.; RAYMAN, R. (Kiyev)

Vending machine for selling milk in glasses. Sov. tovg. 33 no.5:  
44-46 My '60. (MIRA 13:11)  
(Kiev--Vending machines)

RAYMAN, V.

Pneumatic conveying and its applications. p. 176.

ZDRAVOTNI TECHNIKA A VZDUCHOTECHNIKA. (Ceskoslovenska akademie ved. Ceskoslovenska vedecka technicka spolecnost pro zdravotni techniku a vzduchotechniku)  
Praha, Czechoslovakia. Vol. 2, no. 4, 1959.

Monthly list of East European Accessions (EEAI), Vol. 9, no. 1, Jan. 1960

Uncl.

RAYMAN, V.

Contribution to the solution of high-pressure pneumatic-tube transportation by means of dual-chamber feeders. p. 233.

ZDRAVOTNI TECHNIKA A VZDUCHOTECHNIKA. (Ceskoslovenska akademie ved. Ceskoslovenska vedecka technicka spolecnost pro zdravotni techniku a vzduchotechniku) Praha, Czechoslovakia. Vol. 2, no. 5, 1959.

Monthly list of East European Accessions (EEAI), Vol. 9, no. 1, Jan. 1960

Uncl.

CZECHOSLOVAKIA

RAYMAN, Vaclav, Engr, ZVVZ [not identified].

"Calculation and use of the Limiting Nozzles and Orifice Plates"

Prague, Zdravotni Technika a Vzduchotechnika, Vol 6, No 4, 1963,  
pp 166-173.

Abstract [Author's Czech summary]: Basic equations are presented for calculating the air flow through normal and enlarged nozzles and limiting orifice plates adjusted for the use in air engineering. Included are essential data on the design, manufacture, and assembling of the limiting nozzles and orifice plates used in pneumatic conveying systems. One Czech reference.

1/1

RAYMAN, Vatslav [Raiman, Vaclav], inzh. (Chekhoslovakiya)

Unpackaged transportation of powdered materials with pneumatic  
unloading. Mekh. trud. rab. 12 no.8:43-45 Ag '58. (MIRA 11:9)  
(Czechoslovakia--Cement--Transportation) (Czechoslovakia--Tank cars)

SHIGANOV, N.V.; RAYMOND, E.D.

Electric arc welding of sheet metal using a thin electrode wire.  
Avtom. svar. ll no.5:92-96 My '58. (MIRA 11:6)  
(Electric welding) (Sheet steel--Welding)

*Raymond E. D.*

AUTHORS: Shiganov, N.V., and Raymond, E.D. 125-58-5-13/13

TITLE: Electric Arc Welding of Thin-Sheet Metal With a Thin Electrode Wire (Elektrodugovaya svarka tonkolistovogo metalla tonkoy elektrodnoy provolokoy)

PERIODICAL: Avtomaticheskaya Svarka, 1958, Nr 5, pp 92-96 (USSR)

ABSTRACT: The automatic welding device "ADMT-100" and the technology described in the article were developed after experiments conducted in 1954-1956. The device can be used for automatic and semi-automatic flux, as well as for shielded arc welding with electrode wires of 0.5, 0.3 and 0.2 mm diameter, without copper or other supports on the rear side of thin sheets bein joined. The base metal can be 1.5 mm and thinner. This pistol-gripped welder permits welding in difficult positions, and can be used also for automatic welding when it is attached to a carriage. The conventional hoses are eliminated by mounting a small wire reel and a small wire feed-motor directly on the welding head. The device is shown in the drawing (Fig. 1). The operation technology for butt and lap welds on thin sheet steel is shown in a chart along with macro-

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125-58-5-13/13

Electric Arc Welding of Thin-Sheet Metal With a Thin Electrode Wire

photographs of resulting joints. There are 2 figures and  
1 chart.

SUBMITTED: October 16, 1957

AVAILABLE: Library of Congress

Card 2/2

SHIGANOV, N.V., kand.tekhn.nauk; RAYMOND, E.D., inzh.

Measuring arc pressure in welding in an atmosphere of argon  
and under flux. Svar. proizv. no.12:13-17 D '57. (MIRA 11:1)  
(Electric welding) (Protective atmospheres)

Raymond, E. D.

135-12-4/17

AUTHOR: Shiganov, N.V., Candidate of Technical Sciences, and Raymond, E.D., Engineer

TITLE: Arc Pressure Measurement in Welding in Argon Medium and Under Flux (Izmereniye davleniya dugi pri svarke v srede argona i pod flyusom)

PERIODICAL: Svarochnoye Proizvodstvo, 1957, # 12, p 13-17 (USSR)

ABSTRACT: The described experiments were performed in the course of development work on welding technology for an intricate thin sheet (1-2 mm) design. The material frequently burned through in all attempts of automatic welding, even when a copper underlay plate was used. Only welding in argon with a non-melting electrode was successful. It was then assumed that the major cause of burning-through in the former attempts was the arc pressure, and that successful welding of such thin material could be possible also in other ways than with a tungsten electrode in argon, as for instance welding under flux or in CO<sub>2</sub>, provided the arc pressure is sufficiently low. The A.V. Petrov's "quadrant balance" (Ref. 8) for measuring the arc pressure (on a vertical wall) was modified as shown by a schematic.

Card 1/2

RAYMOND, T. Yu., Cand Med Sci -- (diss) "Vitamins C and B<sub>1</sub> in the cerebrospinal fluid of patients sick with syphilis and the effect of antisyphilitic treatment on the maintenance of the vitamins in the fluid." Gor'kiy, 1960. 11 pp; (Gor'kiy State Medical Inst im S. M. Kirov); 350 copies; price not given; (KL, 50-60)<sup>136</sup>

1971, p. 17.

Shchegolev, V. N. "The role of the Central Committee of the CPSU in the development of the national economy of the USSR," *Izvestiya Vsesoyuznogo nauchno-issledovatskogo instituta statistiki i ekonomicheskoy kibernetiki*, Moscow, Issue 12, 1970, p. 114-17.

OO: 1-176, 1 April 1972, (Istoria Zhurnalovkh Statist, No. 2, 1972)

RAYMOV, R.

New methods of taking population census of the lesser suslik  
(*Citellus pygmaeus* Fall.). *Usb.biol.zhur.* no.3:43-47 '58.  
(MIRA 11:12)

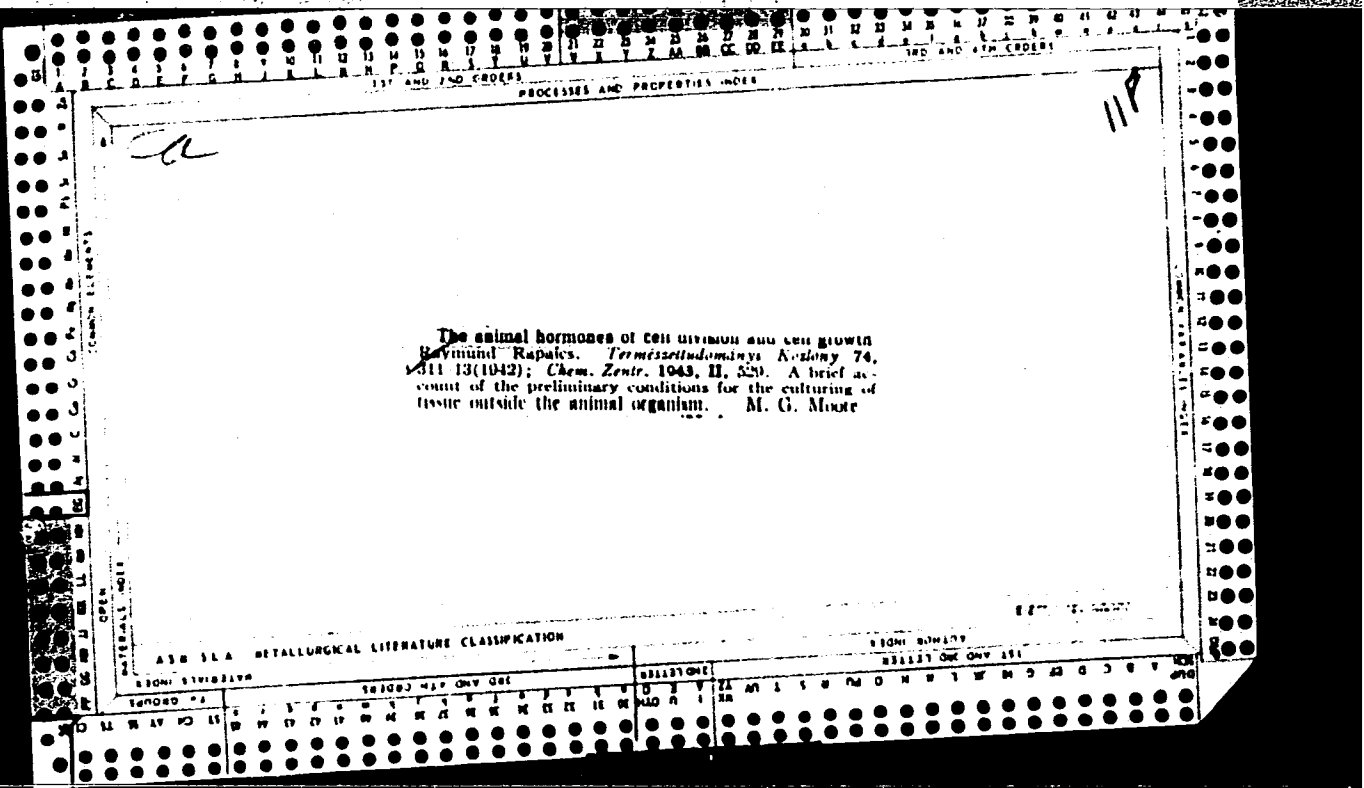
1. Vsesoyuznyy nauchno-issledovatel'skiy institut sashchity  
rasteniy i Institut zoologii i parazitologii AN UzSSR.  
(Suslike)

CA

11b

Root-developing substances. Raymond Rapais.  
*Pflanzl. Termezettud. Közönyhoz 70, 117-21(1933);  
Chem. Zentr. 1939, I, 3308.*—A general discussion of the  
action of the root-developing plant hormones (auxin, etc.)  
and hormone-like substances ( $\beta$ -indolylacetic acid)

ASB SLA HTAL UNKAL LITERATURE CLASSIFICATION





RAYN, M. M.

Gorochin, M. G.

"Prevention of syphilis in children." Reviewed by Prof. M. M. Rayn. *Pediatrics*  
no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

RAYNAL, R.

Periglacial phenomena in Morocco and their place in the morphologic evolution.

p. 143.

(BIULETYN PERYGLACJALNY. No. 4, 1956, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 1957, Uncl.

LAWANO, Henri

Insurance, Social

Essence and significance of social insurance. Vsem. prof. dvizh. No. 7, 1953.

Monthly List of Russian Acquisitions, Library of Congress, June 1953. Uncl.

RAYNAUD, Henri, sekretar'.

29th Congress of the French General Confederation of Labor. Vsem.prof.  
dvizh. no.14:23-28 J1 '53. (MLRA 6:7)

1. Vseobshchaya konfederatsiya truda. (France--Trade-unions--Congresses)  
(Congresses--Trade-unions--France)

MANILOVA, R.Z., kand. tekhn. nauk; RAYEM, Z.V., inzh.

Action of present-day rolling stock on bridges. Sbor. trud.  
LITZET no. 228:72-87 '64.

Example of the recomputation of 109.2 m. metal spans. Ibid.:  
88-124. (MIRA 18:12)

TATUNIN, A.T., nauchn. sotr.; MANILOVA, R.Z., nauchn. sotr.;  
ROVNYIY, A.A., nauchn. sotr. Primali uchastiye:  
KOZ'MIN, Yu.G.; RAYNEN, Z.V.; SHEBYAKIN, O.S.;  
BELOGOLOVYY, A.A.; KHARO, Ye.N.; SHERSHNEV, N.N.;  
NEKLEPAYEVA, Z.A., red.

[Guide for the determination of the load capacity of  
metal spans of railroad bridges] Rukovodstvo po opredeleni-  
niu gruzopod'emnosti metallicheskih proletrykh stroenii  
zheleznodorozhnykh mostov. Moskva, Transport, 1965. 255 p.  
(MIRA 18:10)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye puti i  
sooruzheniy. 2. Nauchno-issledovatel'skiy institut mostov  
Leningradskogo instituta inzhenerov zheleznodorozhnogo  
transporta (for Tatunin, Manilova, Rovnyy, ~~et al.~~)

RAYNER, A.

~~How we work.~~ Stroitel' no.3:10-11 Mr '57.

(MLBA 10:4)

1. Rukovoditel' brigady instruktorov instituta Orgstroy Ministerstva stroitel'stva predpriyatii metallurgicheskoy i khimicheskoy promyshlennosti SSSR.

(Plaster board)

RAYNER, B.S.

✓ 1068 AEC-tr-2306  
INVESTIGATIONS OF THE  $(\gamma, p)$  REACTION IN COPPER.  
E. M. Leikin, R. M. Osokina, and B. S. Rainer. Trans-  
lated from Doklady Akad. Nauk S.S.S.R. 102, 246-9  
(1965). Sp. Available from Consultants Bureau, New  
York.  
An abstract of this paper appears in Nuclear Science  
Abstracts as NSA 9-5505.

②



SOURCE CODE: UR/0413/66/0001-

ACC NR: AP6018015

INVENTOR: Rayner, L. S.

ORG: None

TITLE: A calendar clock. Class 83, No. 182057

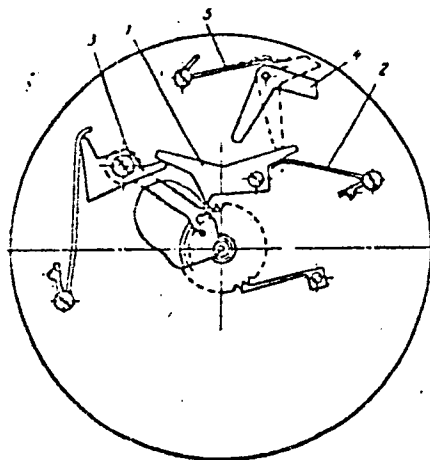
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 152

TOPIC TAGS: clock, timepiece, time interval counter

ABSTRACT: This Author's Certificate introduces: 1. A calendar attachment for clock mechanisms which is driven by the hour wheel. The unit contains a lever with two teeth, a spring-loaded stop, mainspring and calendar sprocket with ratchet gearing. This sprocket carries the load on the primary clock mechanism. The attachment incorporates a shift mechanism made in the form of a multiple-arm cocking device loaded by the mainspring and put into the striking position by a multiple lever. 2. A modification of this attachment in which the date indicator may be set without interfering with the primary clock mechanism by using a correction unit made in the form of an angle lever with a spring for interaction with the cocking device.

UDC: 681.117

ACC NR: AP6018015



1--multiple-arm cocking device; 2--mainspring; 3--multiple lever; 4--angle lever;  
5--spring

SUB CODE: 13, 14/ SUBM DATE: 10Mar66

Card 2/2

PANFILOVA, N.D.; RAYNER, M.M.

Antenna switch for the decimeter wave band. *Izv.vys.ucheb.zav.;*  
radiotekh. no.4:501-503 J1-Ag '58. (MIRA 11:11)

1. Rekomendovana Vtoroy Vsesoyuznoy konferentsiyey Ministerstva  
Vyshego obrazovaniya SSSR po radiotekhnike.  
(Radio, Shortwave--Antenna)

SOV/142-58-4-17/30

AUTHOR: Panfilova, N.D., Rayner, M.M.

TITLE: Construction of an Antenna Switch for the Microwave Band (Konstruktsiya antennogo pereklyuchatelya detsimetrovogo diapazona voln)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 4, pp 501-503 (USSR)

ABSTRACT: The paper discusses the design of discharge switches, where the discharge gap is separated from the wave-guide. A duplexer design is investigated in which the specific properties of the microwave band are taken into consideration: the possibility of separating the discharge gap from the wave-guide, typical for magnetrons in this wave band, a coaxial-wave-guide lead and larger dimensions for all wave-guide elements. Reduction of the switch's dimensions is achieved by a more compact arrangement of all elements. The simplified and more accurate substitute circuit diagram is investigated, as well as, by way of comparison, the

Card 1/2

6(4)  
AUTHORS:

SOV/142-58-6-2/20  
Rayner, M.M., and Dukhovnikova, I.A.

TITLE:

Measurement of the Parameters of the Energy Lead-offs of VHF Instruments by Means of a Balanced Transformer (Izmereniye parametrov vyvodov energii SVCh priborov metodom simmetrichnogo transformatora)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 6, pp 647-652 (USSR)

ABSTRACT:

One of the problems, arising in connection with VHF energy lead-offs, is that of creating a matching transfer between lines of standard cross-section, leading to the load, and lines, joined to a generator, which, as a rule, are of non-standard cross-section, which complicates measurement of the necessary parameters. The article proposes a method of measuring the parameters of the energy lead-offs of VHF instruments without the use of apparatus of standard cross-section. Direct investigation of energy lead-offs is replaced by study of a balanced device (Figure 1), formed of two identical lead-offs

Card 1/3

SOV/142-58-6-2/20

Measurement of the Parameters of the Energy Lead-offs of VHF Instruments by Means of a Balanced Transformer

of non-standard cross-section, the ends of which are joined, and of a system which is formed of this transformer by means of simple alterations performed on it. The parameters of such a balanced transformer - two in all - are easily measured. A half of this balanced transformer is defined by three parameters, though but one of them is considered of prime importance, the parameter  $\gamma$  - important as a measure of the quality of the match obtained. Determination of the characteristics of a half of the balanced transformer is accomplished through a further experiment, two variants of which are described by the authors in two supplements to the article, as well as in the main text. In the first variant the parameters of a new balanced transformer, formed by adding a segment of non-standard cross-section to the old one, are measured. The second variant is for the case where it is un-

Card 2/3

RAYNER, M.M.; DUKHOVNIKOVA, I.A.

Measuring the parameters of power leads from ultrahigh-frequency devices by means of symmetric transformers. Izv.vys.ucheb.zav.; radiotekh. no.6:647-652 N-D '58. (MIRA 12:4)

1. Rekomendovana Vtoroy Vsesoyuznoy konferentsiyey Ministerstva vysshego obrazovaniya po radioelektronike.  
(Microwaves--Measurement)

Rayner, M.M.

SUBMITTED: December 7, 1957  
AUTHORS: Golubkov, P.V. and Tsirking, Sh. Ye.  
TITLE: The Second All-Union Conference on Radioelectronics of the Ministry of Higher Education of the USSR (Vtoraya vsesoyuznaya konferentsiya MVO SSSR po radioelektronike) - News Item

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol. 3, Nr. 3, pp 440 - 444 (USSR)

ABSTRACT: The conference took place during September 25 - 29, 1957, at Saratovskiy Gosudarstvennyy Universitet imeni K.G. Chernyshevskiy (Saratov State University named K.G. Chernyshevskiy) in Saratov. The conference was attended by the representatives of some scientific research institutes of the Soviet and Ukrainian Academies of Science, various industrial establishments and the interested ministries. This arrangement stimulated the discussion and evaluation of the papers presented and permitted the determination of plans for the future research to be carried out by the universities in the field of radioelectronics.

A.I. Shtryov proposed (and proved by means of the reciprocity theorem) an interference method of the "cold" investigation of delay systems. The method permits the measurement of electrical non-linearities of delay systems. Gives a high accuracy and requires comparatively little effort. The paper "Production of Periodic Structures by Means of Ultrasound" by Ye.M. Gershenon was devoted to the experimental investigations of an interesting modification of a periodic structure, i.e. a regular waveguide filled with a liquid in which an ultrasonic standing wave was excited. V.P. Sazonov described the method of investigation of the distributions of electric fields in a number of pairs of two cathodes (comb stub systems, input) and small perturbing objects). The author also obtained the distributions of tangential components of the electric fields along certain boundary surfaces, which are of considerable interest. In a number of cases, the author also measured the coupling impedance. Some of the lectures were devoted to the Problems of diffraction patterns of antennas. Here one should mention the papers by Ye.N. Vasil'yev and S.M. Verevkin, dealing with the excitation of the solids of revolution. The analysis of the oscillations in W-type and toroidal volume resonators and in T-type and cross-shaped waveguides was given in the papers by V.L. Patrushev and V.M. Sedukh, respectively. A number of the papers in the Electrodynamics Section dealt with the complex phenomena appearing at the junctions of waveguides. Here, it is necessary to mention the papers: The Calculation of Junctions in Straight and Curved Waveguides by V.V. Gerasimov, R.P. Luchinin and M.P. Divovskiy, The Parameters of the Energy Outputs in Waveguides by V.V. Gerasimov and M.M. Babbar. The behaviour of various substances in electromagnetic fields at U.H.F. was discussed in the papers of O.V. Karпова, U.P. Radin, I.A. Shekhtman, A.I. Pilyuchikov, A.L. Levinson, M.S. Rodletskaaya and A.A. Kuznetsov.

Card#7/16

The paper of M.G. Bagay and his collaborators described the principle of operation of a molecular clock having an accuracy of 10<sup>-9</sup>. The results of a theoretical investigation of the molecular radiation in high-frequency fields were given in the papers of V.M. Rayn, entitled "Radiation of the Molecules in Strong High-Frequency Fields" and "The Spontaneous Radiation of Molecules at Ultra-High Frequencies". In the second of the above papers, the author came to the conclusion that the width of the spectral lines of the spontaneous radiation at U.H.F. is finite. The author also proposed a method for the phenomenon of coherence in the spontaneous radiation.

Card (7/16)



RAYNER, N.L., kand.med. nauk

Sarcoidosis of the nose and pharynx. Vest. otorin. no.1:  
93-95 '63. (MIRA 16:9)

1. Iz kliniki bolezney ukha, nosa i grila (zav. kafedroy -  
dotsent V.A. Simolin) Gor'kovskogo meditsinskogo instituta.  
(GRANULOMA BENIGNUM) (NOSE--DISEASES)  
(PHARYNX--DISEASES)

EXCERPTA MEDICA Sec.11 Vol.11/5 Oto-Rhino-Larngo. May 55

RAYNER, N. L.

890. DISTURBANCES OF HEARING IN VASCULAR DISEASES OF THE CNS  
(Russian text) - Rayner N. L. Gorky - VESTN. OTO.-RINO-LARING. 1957,  
5 (93-97) Graphs 2

Out of a group of patients afflicted with vascular diseases of the CNS 40 persons were picked out for investigations. They had a peculiar deficiency in hearing: along with an almost normal perception of sound (audiometry and tuning forks) the perception of whispering was impaired. Investigation revealed that such dissociation of hearing occurs not only in hypertensive vascular disease, but also in arteriosclerosis, endarteritis, syphilis of the brain, etc. (XI, 8, 18\*)

RAYNER, N.L.

RAYNER, N.L., ksnd.med.nauk

Hearing disorders in vascular diseases of the central nervous system  
[with summary in English]. Vest.oto-rin. 19 no.5:93-97 8-0 '57.  
(MIRA 10:11)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. A.A.Atkar-  
skaya) Gor'kovskogo meditsinskogo instituta.  
(VASCULAR DISEASES, PERIPHERAL, compl.  
hearing disord.)  
(HEARING DISORDERS, etiol. and pathogen.  
vasc. dis., peripheral)

RAYNER, N.L., kand.med.nauk

Experience in treating cochleovestibular disorders on the basis  
of vascular diseases of the central nervous system. Vest.otorin.  
22 no.5:32-34 S-0 '60. (MIRA 13:11)

1. Iz kafedry bolezney ukha, gorla i nosa (zav. - prof. A.A.  
Atkarskaya) Gor'kovskogo meditsinskogo instituta.  
(LABYRINTH (EAR)--DISEASES) (PILOCARPINE) (BRAIN)

RAVBERMAN, I.G., *Chelovek*

Replacement of a legible match with a bottom. Avtom. telemek. i svyaz'  
9 no. 4:45 to 1:05. (MIRA 18:5)

1. Odeskaya otkrytaya Odessko-Kishinevskoy dorogi.

RAYNERMAN, P.O., elektromekhanik radiosvyazi

Repair of the O4R-1 transmitter-receiver. Avtom.,  
telem. i sviaz' 9 no.12:31 D '65.

(MIRA 19:1)

1. Odesskaya distantiya Odessko-Kishinevskoy dorogi.

BRUTMAN, Ye.I.; BENDERSKAYA, A.S.; STEPANOVSKAYA, D.L.; RAYNERMAN, R.I.

Diagnostic significance of agglutination reaction in dysentery. (Authors' abstract). Zhur.mikrobiol.epid.i immun. no.3:26-27 Mr '53. (MIRA 6:6)

1. Odesskiy institut epidemiologii i mikrobiologii imeni Mechnikova.
2. Klinika detskikh bolezney lechebnogo fakul'teta Odesskogo meditsinskogo instituta.
3. Pervaya infektsionnaya bol'nitsa. (Dysentery) (Agglutination)

86. Investigation of the Toxicity of Methyl Methacrylate

"Data on the Characteristics of the Toxicity of Methyl Methacrylate in Work Conditions at a Dental Materials Plant," by L. A. Raynes (Kharkov), Chair of Labor Hygiene Kharkov Medical Institutē, Gigiyena Truda i Professional'nyye Zabol-evaniya, Vol 1, No 1, Jan/Feb 57, pp 56-57

In 1940, L. Z. Ponomareva-Astrakhantseva established that methyl methacrylate was a toxic poison with a toxicity greater than that of carbon tetrachloride, gasoline, and other poisonous substances. Methyl methacrylate is a colorless liquid with a characteristic odor. It is readily soluble in organic solvents, but poorly soluble in water. Its specific gravity is 0.95; boiling point, 100.3 degrees. Its vapor tension is 35 millimeters of mercury at 20 degrees, and its volatility at 20 degrees is 192 milligrams per liter.



Observations conducted by B. D. Karpov to determine the effect of methyl methacrylate on the human organism established that vapor concentrations of 0.5 to one gram per liter caused irritation of the mucous membrane of the eyes and the upper respiratory organs. Contact of liquid methyl methacrylate with the skin caused hyperemia; contact with the eyes caused conjunctivitis. The inhalation of the vapors of the chemical in concentrations of 0.5 to one milligram per liter for period of 20 to 90 minutes caused mild intoxication expressed by weakness, dizziness, headache, nausea, and sleepiness. Occasionally there was vomiting and loss of consciousness. The allowable limit of concentration of the vapors of the chemical in the air was established at 0.05 milligrams per liter.  
(U)

*Sum 14/54*

GABERTSETTEL', A.I.; KREL'SHTEYN, L.M.; NEV, S.B.; RAYNES, L.S.;  
RYZHIK, Z.M., red.; FOMICHEV, A.G., red. izd-va; GVIRTS, V.L.,  
tekhn. red.

[Preparing rods for welding electrodes by the rolling of high-  
alloy steel and nonferrous metals] Poluchenie sterzhnei dlia  
svarochnykh elektrodov prokatkoi iz vysokolegirovannykh stalei  
i tsvetnykh metallov. Leningrad, 1962. 15 p. (Leningradskii dom  
nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriya:  
Svarka i paika metallov, no.2) (MIRA 15:5)  
(Electrodes) (Rolling (Metalwork))

RAYNES, M.M.

✓ Application of qualitative reactions of copper and nickel  
 for colorimetric determination. M. M. Raynes and Yu. A.  
 Larionov. *Trudy Komissii Anal. Khim., Akad. Nauk S.S.S.R.*  
*S.R., Inst. Geokhim. i Anal. Khim.* 7, 295-99(1958).—To  
 det. Cu in 10 ml. of  $\text{CuSO}_4$  (0.2-5 mg.) soln., add 1 ml. of  
 0.1% hydroquinone in 0.01N HCl soln., 1 ml. 5% of pyr-  
 idine soln., and 1 ml. 0.1%  $\text{H}_2\text{O}_2$ . After 1 min. add 1 ml.  
 5% AcOH soln. and immediately measure the intensity of the  
 brown color photocolometrically with the blue light filter.  
 It was found that 500 mg./l. of  $\text{Cl}^-$ , 10 mg./l.  $\text{SO}_4^{--}$ , 10  
 mg./l.  $\text{Ba}^{++}$ , 10 mg./l.  $\text{Al}^{+++}$ , and 10 mg./l.  $\text{Mg}^{++}$  do not  
 interfere with the intensity of the color.; 10 mg./l. of Ni  
 gave the same color as 0.1 mg./l.  $\text{Cu}^{++}$ , and 10 mg./l.  
 $\text{Fe}^{+++}$  the same as 1 mg./l.  $\text{Cu}^{++}$ . The accuracy of the  
 detn. depends on the acidity of the medium; the most favor-  
 able is at a pH = 3-3.5. The reagent for Ni was prepd. as  
 follows: a mixt. of 3.75 ml. 40% freshly distd. formalin,  
 3.5 g. of hydroxylamine-HCl, and 3.75 ml.  $\text{H}_2\text{O}$  was heated  
 to the boiling point. The higher intensity of color was ob-  
 served when 1 drop of reagent was added to the 10 ml.  
 (0.1-4 mg.)  $\text{NiSO}_4$  soln. in the presence 0.4-1.0 ml. N NaOH  
 soln. A greenish yellow color was measured without a filter.  
 —N. Charmandarian

2

4  
3  
0

*[Handwritten signature]*

RAYNES, I.S.

SHIBALOV, V.I., kand. tekhnicheskikh nauk; OBRAZTSOV, S.A., redaktor;  
RAYNES, I.S., redaktor; BORISOV, A.S., tekhnicheskii redaktor

[Organization and mechanization of sawmill work.] Organizatsiia i  
mekhanizatsiia v lesopilenii. Moskva, Gos. izd-vo mestnoi pro-  
myshlennosti RSFSR, 1955. 259 p. (MLRA 9:1)  
(Sawmills)

RDYNS. I S

EVSHITS, M.L.; KOLOTUKHIN, I.N.; KISELEV, V.S., doktor khimicheskikh nauk, professor, redaktor; RAYNES, I.S., redaktor; MEL'NIKOVA, N.V., tekhnicheskii redaktor

[Painting and finishing articles for mass consumption] Okraska i otdelka izdelii massovogo potrebleniia. Pod red.V.S. Kiseleva Moskva, Gos.izd-vo mestnoi promyshl.~~ESYER~~, 1955. 295 p.  
(Painting, Industrial) (MLRA8:10)

RAYNES, L.S.; GABERTSETTEL', A.I.; KONDRAT'YEVA, Z.S.

Effect of the thermal treatment of molten metal on the properties  
of the alloy Br. ANMts 8.5-7.5-1.5. Lit.proizv. no.7:36-38 JI '61.  
(MIRA 14:7)

(Bronze) (Fpounding)

L 55973-65

EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(1)

Pf-4 JD

ACCESSION NR: AP50L4496

UR/0032/65/031/006/0748/0749  
621.745.3

42  
41  
B

AUTHORS: Raynes, L. Yu.; Makarevich, A. I.

TITLE: An electron gun for zone refining without a crucible

SOURCE: Zavodskaya laboratoriya, v. 31, no. 6, 1965, 748-749

TOPIC TAGS: electron gun,<sup>14</sup> zone refining, power control, electron beam control, melting, temperature gradient / KRM 150 kenotron

<sup>16</sup> ABSTRACT: A three-electrode electron gun was developed for zone refining. The addition of the third electrode (an accelerating one) eliminated the earlier problem of contaminating the specimen and coating the gun filament, thereby speeding its burnout. The electron gun (see Fig. 1 on the Enclosure) was modeled on a rubber membrane. The diaphragm (2) is fastened to the movable cylinder (1). Below the diaphragm is an annular accelerating electrode (3). The lower diaphragm (4) moves in respect to the cylinder (5). The cathode unit (made from tantalum) is fastened to insulators by a collar (6). The filament of the heater (7) is shielded from the specimen-anode (8) on one side by the diaphragm (2) and on the other by the diaphragm (4). The accelerating electrode is fed +46 kv, thereby

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L 55973-65

ACCESSION NR: AP5014496

reducing the work function of the heater. Diaphragm (2) protects the accelerating electrode (3) from the electrons which are directed in a beam to the molten zone. A melting temperature gradient can be created by focusing the beam through the movements of cylinder (1) and the diaphragm (4). The accelerator electrode also acts as an anode current modulator and gives a practically inertia-free regulation of the thermal condition. In the power stabilizer (see Fig. 2 on the Enclosure) the specimen (1) is the anode and the filament (2) the cathode. The anode current passing through the current collector (3) creates a voltage in the comparison unit (4), where a signal also arrives from the adjustment unit (5). The adjusting signal is sent from (4) to the regulating cascade (6), changing the resistance. This changes the voltage distribution in the voltage divider (7) and the voltage in the control electrode (8). The anode output characteristic is maintained rather rigidly by using a high-voltage x-ray transformer of 2 kw power, with a bridge of four KRM-150 kenetrons, as the anode voltage source. The gun operation is recorded by an electronic potentiometer (9). Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki tverdogo tela i poluprovodnikov, Akademii nauk BSSR (Institute of Physics of Solids and Semiconductors, Academy of Sciences, BSSR)

SUBMITTED: 00

ENCL: 02

SUB CODE: EC, MM

NO REF SOV: 002

OTHER: 003

Card 2/4



L 55973-65

ACCESSION NR: AP5014496

ENCLOSURE: 01

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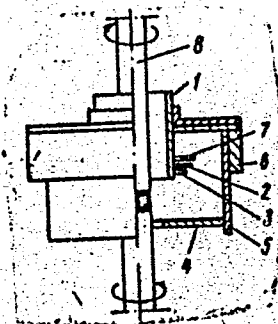


Fig. 1.  
Sketch of a three-electrode electron gun

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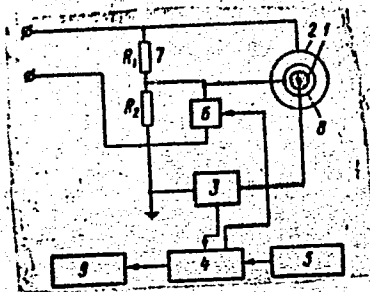


Fig. 2.  
Block diagram of the power regulator

Am  
Card 4/4

A

7

Photocolorimetric determination of fluorine in the air with zirconium-alizarin. M. M. Raines and S. V. Kazachkova. *J. Applied Chem.* (U. S. S. R.) 13, 153-6 (in French, 1940) (1940).--Treat samples of air contg. F with 0.5 cc. each of Zr-alizarin indicator, 3 N H<sub>2</sub>SO<sub>4</sub> and 3 N HCl in a volumetric flask. Add water to the mark, heat to boiling under a reflux condenser and cool rapidly.

After 10 min. det. F with the photocolorimeter. To prep. the indicator, mix equal vols. of Zr(NO<sub>3</sub>)<sub>4</sub> (0.87 g. per 100 cc. of water) and Na alizarinsulfonate (0.17 g. per 100 cc. of water). If interfering substances are present, F should be distd. as H<sub>2</sub>SiF<sub>6</sub> from the soln. after addn. of the above reagents and the distillate should be treated again as above. For the detn. of F a standard curve should be constructed by using various amts. of F soln. of known concn. By this method 0.001-0.002 mg. of F can be detd.

A. A. Polgorny

AS 13 A METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

7

**Determination of small quantities of Suarine in "white soot" (silicic acid). M. M. Raban and H. A. Prodlina. Zashchaya Lab. 18, 819-22(1947).—Russian specifications allow not over 0.05% F in white soot (silicic acid formed from  $NH_3$  and  $H_2SiF_6$ ) for use as a filler in synthetic rubber. Place 1 g. of sample in a distg. flask, add about twice as much powder, ferronilron, and introduce through a capillary funnel 50 ml. of 18 N  $H_2SO_4$ , while carefully shaking the flask. Distn. commences 15-20 min. after the start of the heating and ends in 50-60 min. The end of distn. is indicated by the appearance of white vapors in the spray trap. The distillate should measure about 35-40 ml. If the liquid is cloudy, filter through a porous glass filter. To the filtrate add 2 ml. 3 N  $H_2SO_4$ , 2 ml. 3 N HCl, and 5 ml. alizarin zirconium indicator. Measure the color in a photocolourimeter. H. Z. Kamich**

METALLURGICAL LITERATURE CLASSIFICATION

SIGNATURE

CALL NUMBER

PROCESSES AND PROPERTIES INDEX

7

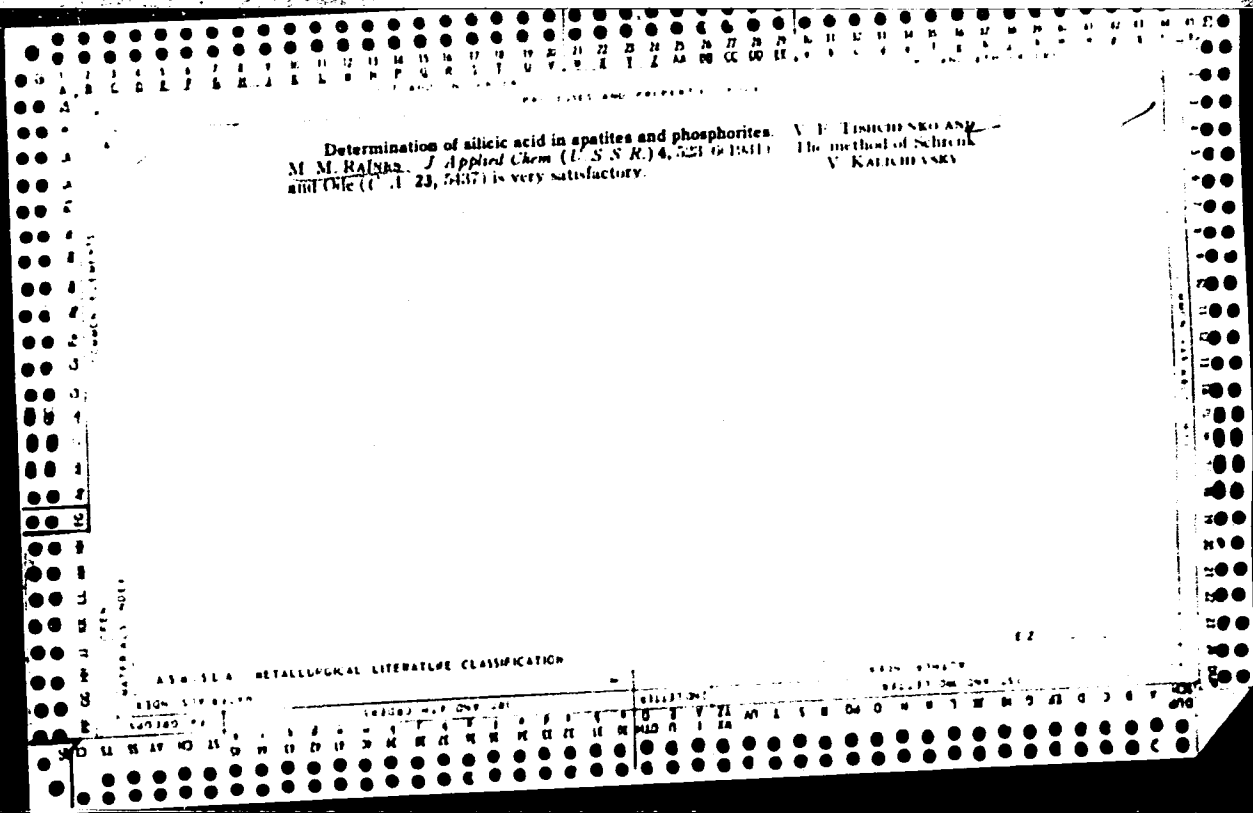
*CA*

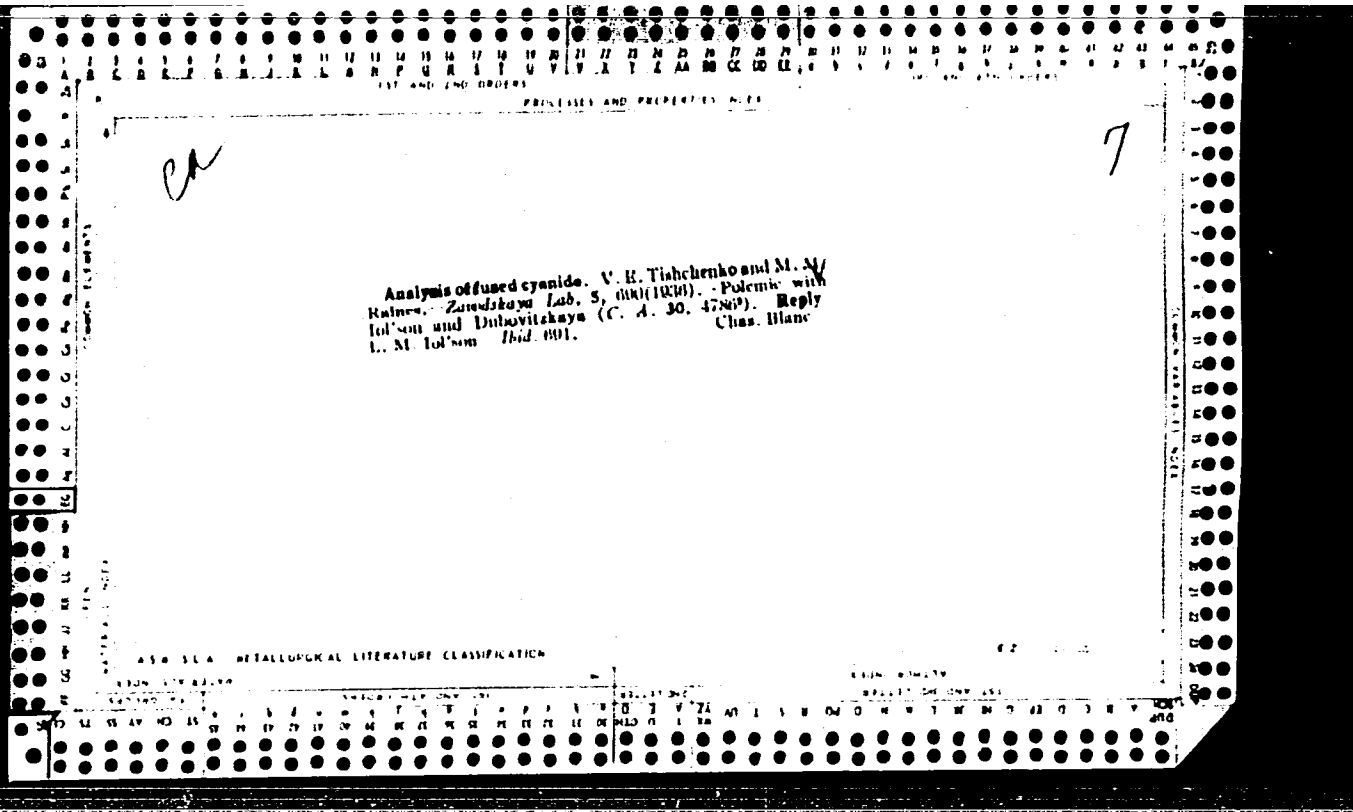
Determination of water in liquid hydrogen fluoride.  
 M. M. Raines, *Zavodskaya Lab.* 14, 244-6(1948). —  
*Procedure:* Sat. 48 g. of dry pyridine with  $SO_2$  until it gains  
 14 g. in wt. Add a soln. of 15 g. l in 150 ml. abs. MeOH;  
 standardize the reagent against MeOH contg. a known  
 quantity of  $H_2O$ . In a Bakelite cylindrical vessel with a  
 screw-cap carrying a perforated baffle, place 50 ml. of abs.  
 MeOH. Pour the liquid HF into a chilled Cu vessel  
 (below  $10^\circ$ ), weigh after closure (Cu lid), and place the  
 Cu container on the perforated baffle of the Bakelite  
 vessel, which is then hermetically closed and inverted  
 several times. After a few min., remove the cover and  
 pour the HF-MeOH soln. into a 100-ml. volumetric flask  
 coated with paraffin. Add dry MeOH to the 100-ml.  
 mark and use 5-10 ml. aliquots for the titration with the  
 Fischer reagent (end point—darkening of soln.). If the  
 soln. is too dark, use potentiometric method with Pt and  
 W electrodes in a closed vessel; the break is 20-25 mv.  
 G. M. Kosolapoff

*State Inst. Applied Chem.*

A S A - S L A METALLURGICAL LITERATURE CLASSIFICATION

METALLURGY





CA

7

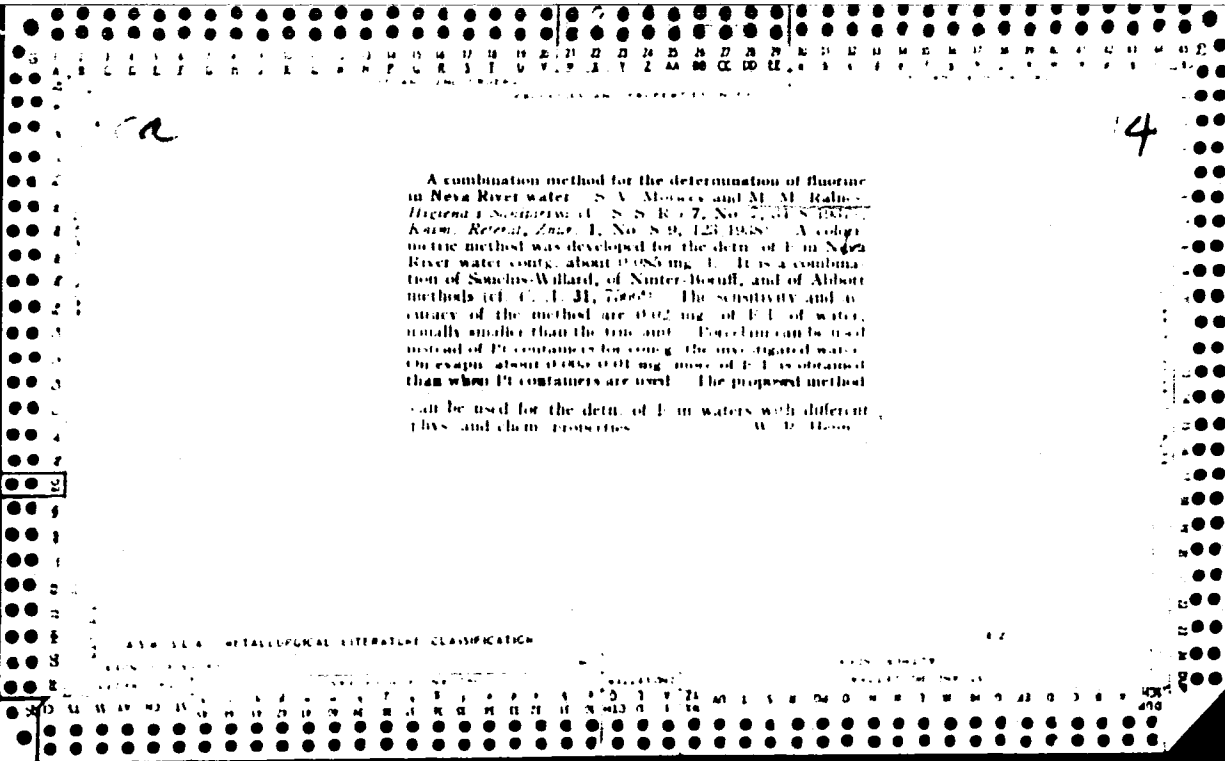
**Potentiometric determination of sulfide in cyanide melt.**  
 M. M. Ralova and A. R. Putnig, *Zavodskaya Lab. 6*, (1937). The detn. of Na<sub>2</sub>S in the presence of NaCN, NaSCN and NaCl by titrating a soln. of com. cyanide or cyanide melt with 0.1 N AgNO<sub>3</sub> and Ag-wire electrode is based on the Hiltner and Grundmann method (cf. C. I. 28, 4675<sup>9</sup>), and depends on the different solubilities of Ag<sub>2</sub>S, Ag<sub>2</sub>CN<sub>2</sub>, AgSCN and AgCl. The titration of NaCN gives 2 marked changes of potential, according to the reaction:  $2 NaCN + AgNO_3 = NaAg(CN)_2 + NaNO_3$ ;  $NaAg(CN)_2 + AgNO_3 = 2 AgCN + NaNO_3$ , while that of NaCN and NaSCN gives only 1 marked potential change because of the slight difference in the solubilities of AgCN and AgSCN ( $2 \times 10^{-12}$  and  $1 \times 10^{-12}$ , resp.). Hence the titration of black cyanide soln. gives 1 potential break, corresponding to the formation of Ag<sub>2</sub>S, NaAg(CN)<sub>2</sub>, AgCN and AgCl. Eleven references. C. B.

ASB-15A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS

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a

4

A combination method for the determination of fluorine in Neya River water. S. V. Mironov and M. M. Ralov. *Hygiene i Sanitariya U.S.S.R.* 7, No. 7, 1968, 183-184. *Koim. Referat. Znan.* 1, No. 8, 9, 121, 1968. A colorimetric method was developed for the detm. of F in Neya River water contg. about 0.085 mg/l. It is a combination of Snelius-Willard, of Ninter-Bowuff, and of Abbott methods (cf. C. I. 31, 7965). The sensitivity and accuracy of the method are 0.02 mg/l of F in water, usually smaller than the true amt. Potassium can be used instead of Pt containers for storing the investigated water. On examn. about 0.085-0.01 mg/l more of F is obtained than when Pt containers are used. The proposed method can be used for the detm. of F in waters with different phys. and chem. properties. W. D. Hason.

PROCEDURES AND PROPERTIES INDEX

7

Determination of small quantities of cyanide in substances treated with insecticides. M. M. Raines and A. I. Krupkin. *J. Applied Chem. (U. S. S. R.)* 10, 990 (1957) (German 1952) (1957). Evaporate the soln. on a water bath in the presence of an excess of NaOH to 1-2 cc. Add 2 drops of 1% NaOH and 0.5 cc. of 0.5% FeSO<sub>4</sub>. Heat the resulting soln. at 60-80° for 2-3 min. Cool to room temp. After 5 min. add 3 drops of 0.1% FeCl<sub>3</sub> and 5 cc of 1% HCl and heat until colorless. Set aside for 1-2 hrs until the appearance of a blue color. Dil. to vol. and compare with a standard in the differential photocolormeter. Spn. of HCN from insecticide-treated substances by passing air through the soln. and absorption with 1% alkali is recommended. Eighteen references.

A. A. Polkorny

METALLURGICAL LITERATURE CLASSIFICATION

E. Z. ...

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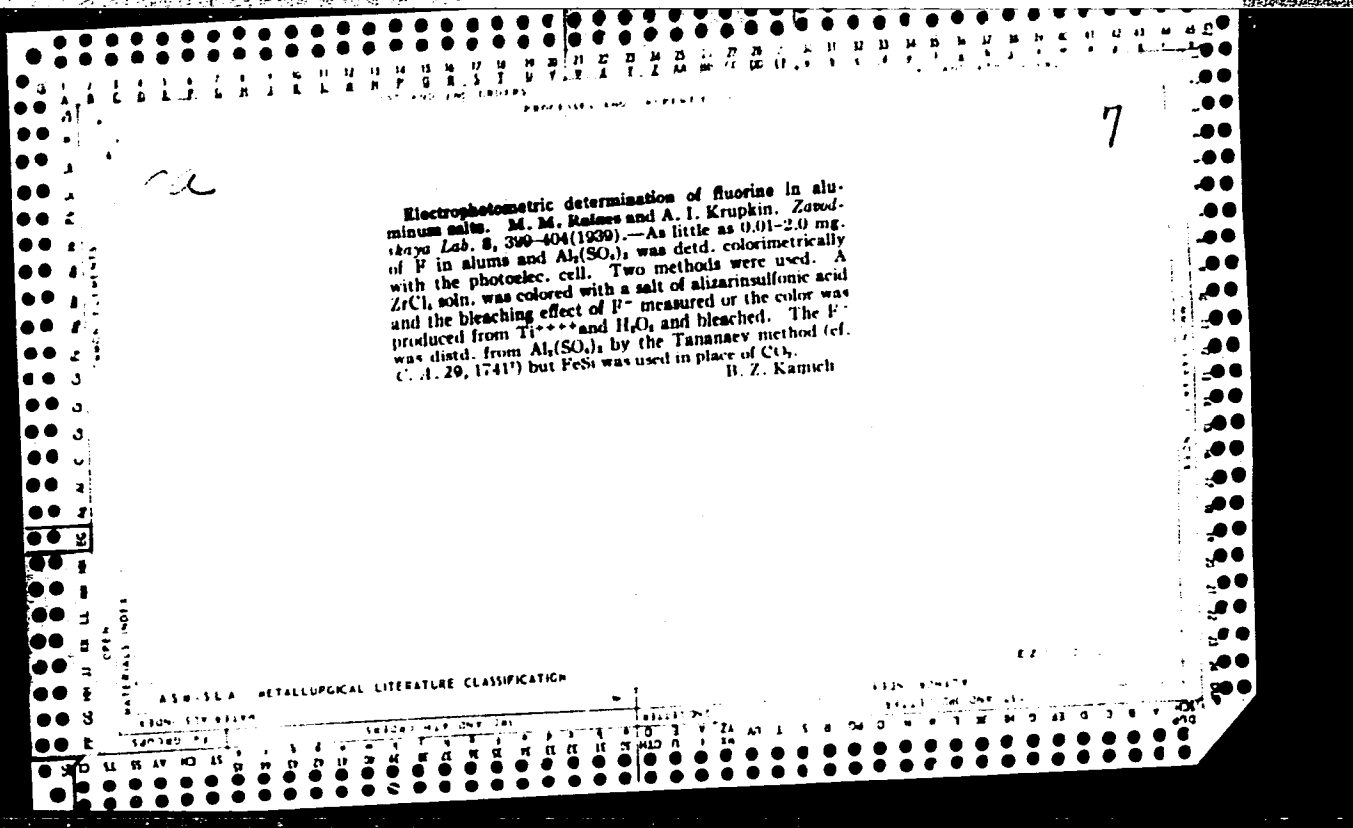
117 AND 120 DEPT'S      PROCESSES AND PROPERTIES INDEX      118 AND 121 DEPT'S

BC A-1

Composition of some gold and tungsten cyanides. M. M. RAINES (Compt. rend. Acad. Sci. U.R.S.S., 1966, 118, 200-202). The compound formed by interaction of HCN with a solution of  $H[AuCl_4]$  is  $H[Au(CN)_2] \cdot 2H_2O$ .  $K_2[W(CN)_8] \cdot 2H_2O$  is formed by interaction of HCN with a solution of  $K_2WCl_6$  followed by neutralization and pptn. with EtOH. C. R. H.

AS-T-SLA METALLURGICAL LITERATURE CLASSIFICATION

|       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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PROCESSES AND PROPERTIES INDEX

117 AND 118 SERIES

CA

17

**Photocolorimetric analysis of pharmaceuticals.** M. M. Ralnes. *Formatsiya* 1949, No. 7-8, 25-31.—Many colorimetric reactions in drug analysis are improved in accuracy or sensitivity by the photocolorimeter. Curves are shown for HCN, HCHO, C<sub>6</sub>H<sub>6</sub>, Fe in alum, NH<sub>4</sub>, Cl (*o*-toluidine and KI methods) and F (alizarin method). A sensitive differential photocolorimeter is described and illustrated. Julian F. Smith

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 7TH ORDERS      PROCESSES AND PROPERTIES MOBI      100 AND 6TH ORDERS

CA      17

Photochemical analysis of pharmaceuticals. M. M. Raines and N. I. Vol'f. *Farmatsiya* 1940, No. 7-8, 31-2.  
 --The colorimetric method used by Lühr and Rietzschel (C. A. 32, 8000P) for detg. adrenaline in sterile ampoules has now been adapted to the photocolormeter, which proved to be sufficiently accurate. Julian F. Smith

COMMON ELEMENTS      COMMON VARIABLES MOBI

MATERIALS MOBI      METALLURGY MOBI

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 7TH ORDERS      100 AND 6TH ORDERS

1ST AND 7TH ORDERS      100 AND 6TH ORDERS

CA

PROCESSES AND PROPERTIES INDEX

✓ Dynamic methods for determining free halogens. M. M. Rames, A. I. Krupkin and P. V. Rodzevich. *Zashchitaya Lab.* 9, 135 8(1940).— The colorimetric detn. of free halogens based on the expulsion of I from KI by free Br and Cl was studied by both dynamic and static methods. The results show that detns. can be made by the dynamic method with the aid of a photocolometer within the limits of 0.5–7 mg./l. calcd. as Cl. The free I passes through a White spiral where it reacts with drops of a KI soln. contg. 1.5 g. KI and 5 g. NaCl in 4 l. of water. The change in color of the soln. produces changes in the electric current which are recorded by the galvanometer. The error varies from 0.3 to 5% for concns. of 1–7 mg. Cl per l. of air and reaches 10% and more for lower concns. The starch method is applicable only when the air contains up to 0.1 mg. l. of halogens. *o*-Toluidine could not be used for detg. the total halogen content but it was satisfactory for detg. the individual halogens. *o*-Toluidine can replace *o*-toluidine. B. Z. Kamich.

ASB SLA DETAILING LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PROCESSES AND PROPERTIES INDEX

7

Colorimetric determination of aluminum hydroxy-quinolates. M. M. Raines and Yu. A. Larionov. *Zhurnal Khim. Fiz.* 14, 1000(1948).--Tests with 7 org. solvents for dissolving the oxine ppts. show that CCl<sub>4</sub> is better than AmOH but in some cases CCl<sub>4</sub> seems to be best.  
G. M. Kosolapoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
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LA

7

Potentiometric titration of technical mixtures of acetic acid and acetic anhydride produced from acetone. M. M. Rajica and Yu. A. Laktionov (State Inst. Applied Chem. Moscow) *Zhurnal Khim. Fiz.* 15, 638 (1940). The  $\text{AcOH} + \text{Ac}_2\text{O}$  is detd. by titration with aq.  $\text{NaOH}$ . The  $\text{PhNHAc}$  formed is not hydrolyzed by aq.  $\text{NaOH}$ . Complete binding of the  $\text{Ac}_2\text{O}$  requires twice the stoichiometric amt. of  $\text{PhNH}_2$ . The titration can be carried out in the presence of  $\text{Me}_2\text{CO}$  and of tarry substances which exclude the use of color indicators. A nomogram is given for detg. the  $\text{AcOH}$  and  $\text{Ac}_2\text{O}$  contents from the titrations. N. Thon

RAYNES, M.M.

✓ Direct potentiometric titration of fluoride. M. M. Raynes, O. I. Pirogova, and M. V. Andreeva. *Zavodskaya Lab.* 21, 162-4 (1955). — for accurate potentiometric titration of  $F^-$  with  $Th(NO_3)_4$ , a pH of 0.7 must be maintained by the addn. of a buffer soln. of sulfanilic acid and K-sulfanilate. W. M. Sternberg

11/2

State Inst. Applied Chem.

RAYNES, M.M.; LARIONOV, Yu.A.

Application of qualitative reactions to the colorimetric determination of copper and nickel. Trudy Kom.anal.khim. 7:295-299 '56. (MIRA 9:9)  
(Colorimetry) (Copper) (Nickel)

RAYNUS, E.S.; KAPLUNOV, Z.V.

Large-panel housing construction in Leningrad. Biul.tekh.inform.  
3 no.1:7-11 Ja '57. (MIRA 10:10)

1.Glavnyy inzhener stroytresta No.3 (for Raynus). 2.Glavnyy  
inzhener byuro tipovogo proyektirovaniya instituta Lenproyekt  
(for Kaplunov)

(Leningrad--Apartment houses)

RAYNUS, E.S.

Economical aspects of using large panels in building. Biul.tekh.  
inform. 3 no.5:10-13 '57. (MIRA 10:10)

1. Glavnyy inzhener stroytresta No.3 [Leningrad].  
(Leningrad--Buildings, Prefabricated)

USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1215

Author: Raynes, M. M., and Larionov, Yu. A.

Institution: Academy of Sciences USSR

Title: Utilization of Qualitative Reactions in the Colorimetric Determination of Copper and Nickel

Original  
Periodical:

Tr. komis. po analit. khimii AN SSSR, 1956, Vol 7, No 10, 295-299

Abstract: The microchemical method for the detection of Cu based on the latter's catalytic effect on the oxidation of hydroquinone by  $H_2O_2$  in the presence of pyridine was used in the photolorimetric determination of Cu. The experiments were carried out with a type LIOT photolorimeter with a photoelectric cell. The thickness of the test sample is 10 cm and the capacity of the cuvette is 4 ml. The extinction was calculated from the photocurrent measurements. To 10 ml of a solution of  $CuSO_4$  containing 0.2-5 mg/l Cu, one milliliter of 0.1% hydroquinone,  $H_2O_2$  and 5% pyridine each are added. After 10 minutes one

Card 1/2

USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1215

Abstract: milliliter of 5%  $\text{CH}_3\text{COOH}$  is added, after which the sample is immediately placed in the colorimeter and its color measured with a blue filter. Insignificant amounts of Ni and Fe do not interfere with the determination. The optimum pH value is 3-3.5. For the determination of Ni, one drop of reagent (prepared by heating to boiling a mixture of 3.75 ml 40%  $\text{CH}_2\text{O}$ , 3.5 gms  $\text{NH}_2\text{OH}\cdot\text{HCl}$ , and 3.75 ml water) and 0.4-1.0 ml 1 N NaOH are added to 10 ml of the solution to be analyzed. No filter is used.

Card 2/2

RAYNES, M.M.

14892. Use of qualitative reactions for the colorimetric determination of copper and nickel.

Raynes and Yu. A. Lantsov. *Trudy Komiss. Anal. Khim. Akad. Nauk. SSSR*, 1958, 7 (10), 298-299.

*Ref. Zhur., Khim.*, 1957, Abstr. No. 1215. The microchemical reaction for the detection of Cu, based on its catalytic action on the oxidation of quinol with H<sub>2</sub>O<sub>2</sub> in the presence of pyridine, may be used for the photometric determination of Cu. To 10 ml of a CuSO<sub>4</sub> soln., containing 0.2 to 5 mg per litre of Cu, add 1 ml each of a 0.1% soln. of quinol, H<sub>2</sub>O<sub>2</sub>, and a 5% soln. of pyridine. After 10 min. add 1 ml of 5% acetic acid and immediately measure the extinction with a blue filter. Small quantities of Ni and Fe do not interfere. The optimum value for the pH is 3 to 3.5. To determine Ni, add to 10 ml of the soln. one drop of reagent (prepared by heating to boiling-point a mixture of 3.75 ml of 40% formaldehyde, 3.5 g of hydroxylamine hydrochloride and 3.75 ml of water),

and 0.4 to 1.0 ml of N NaOH. Measure the extinction without a filter. C. D. KOPKIN

4E20  
4E47

DM  
Jha  
MT



RAYSKINA, M. Ye.

Med 1221. Amount of creatine phosphate in the heart in cardiac insufficiency. M. E. Raiskina *Bull. eksper. Biol. Med.*, 1955, 88, 14-42; *Referat. Zh. Biol.*, 1956, Abstr. No. 50,736. — In insufficient circulation through the heart muscle of the dog, the amount of creatine phosphate in 2 experiments was 0 and in one experiment 3-4 mg.%; in the control group it was 18 mg.% (the experiments were carried out on the heart-lung preparation). Changes in the content of ATP and inorg. phosphate were significantly less. Cardiac insufficiency is connected with diminution in the content of creatine phosphate in the heart. (Russian) D. H. SMYTH

RAYSKINA, M. Ye.

*Med*  
Investigation of phosphorus metabolism in dog heart with the aid of irradiated phosphorus. II. Effect of Pavlov's accelerated nerve upon the speed of resynthesis of phosphorus compounds in dog's heart. M. R. Ralagina. *Bull. Exptl. Biol. and Med. (U.S.S.R.)* 41, 421-4 (1956) (English translation).—See *C.A.* 50, 14925d. B. M. H.

RAYNES, R. L.

PA 187T78

USSR/Physics - Telemechanics

Mar/Apr 51

"Defense Against Distortions of the Time Parameter in Tele-Control Systems," R. L. Raynes, Cen Sci Res Elec Eng Lab, Min of Elec Power Stations USSR

*to be done*

"Avtomat i Telemekh" Vol XII, No 2, pp 160-171

Describes reasons for one of the methods of protecting the time criterion, which method is convenient for any installations connected with tele-control and tele-signalization with time parameters. Submitted 30 Aug 50.

187T78 *HC*

GAVRILOV, M.A., otvetstvennyy redaktor; IL'IN, V.A., redaktor; KRASIVSKIY, S.P., redaktor; KURDYUKOV, K.P., redaktor; MALOV, V.S., redaktor; RAYNES, R.L., redaktor; BRYLEYEV, A.M., redaktor; GRAKOVA, Ye.D., tekhnicheskyy redaktor

[Telemechanics in power engineering systems] Telemekhanizatsiia energosistem; materialy soveshchaniia 1952 g. po telemekhanizatsii energosistem. Moskva, Izd-vo Akademii nauk SSSR, 1954. 213 p.

(MLRA 8:3)

1. Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.  
(Remote control) (Electric power)