RAZUMOVA, Ye.P.

Features of the control of malaria among waterway warkers of the Volga-Don Canal. Med.paraz. i paraz.bol. 25 no.3:258-259 Jl-S '56. (MIRA 9:10)

1. Iz TSentral'noy nauchno-issledovatel'skoy laboratorii gigiyeny i sanitarii na vodnom transporte.

(MOSQUITOES,
eradication in Russia along waterways (Rus))
(MALARIA, prevention and control,
in Russia, along waterways (Rus))

BABENKO, L.V.; BUYANOVA, O.F.; KELLINA, O.I.; LEYKINA, Ye.S.; RAZUMOVA, Ye.P.; FASTOVSKAYA, E.I.; CHALAYA, L.Ye.; SHIPITSINA, N.K.

All-Union Conference on the Control of Parasitic Diseases.
Med.paraz. i paraz.bol. 28 no.3:364-373 My-Je '59.
(MIRA 12:9)

(PARASITOLOGY--CONGRESSES)

EXCERPTA MEDICA Sec 17 Vol 5/6 Public Health June 59

1673. ON THE EPIDEMIOLOGY OF DIPHYLLOBOTHRIASIS AMONG PERSONS WORKING IN THE RIVER TRANSPORT AND MEMBERS OF THEIR FAMILIES (Russian text) - Razumova E. P. - MED. PARAZIT. I PARAZIT. BOL., 1958, 27/3 (271-275) Tables 3

People living near the water reservoirs, as well as people navigating off the foci of diphyllobothriasis, have the greatest epidemiological significance for the spread of diphyllobothriasis. The incidence of diphyllobothriasis is less near the banks of rivers than near the lakes. This is due to the fact that considerable self-purification is found in the rivers and the crustaceans are less abundant. The main factor of transmission in the village described is the eating of raw pike's caviare. Infestation of the population by Diphyllobothrium exhibits a definite seasonal peak during the period of the spawning of pikes. Organization of public nutrition is of great significance in decreasing the incidence of diphyllobothriasis. Therapeutic and prophylactic measures must be organized according to the period of the possible massive infestation of the population. Lectures concerning this question as well as examination of the population and dehelminthization should be carried out mainly during the first 3 months of the year, before the ice in the rivers has broken up, and repeated in October or November. (XVII, 50)

RAZUMOVA, Z. A.

USSR/Chemistry- Platinum Feb 1948
Chemistry- Urea, Thio

"Isomeric Thiourea Derivatives of Bivalent Platinum," A. A. Grinberg, Z. A. Razumova, 4 pp

"Zhur Obshch Khim" Vol XVIII (LXXX). No. 2

Studies of action of thiourine on isomerized salt having formula $Pt\left[P\{(C_2H_5)_3\}_2X_2\right]$ where X is either Br or I. Primary result was a salt which had formula $\left[PtP_2(Thio)_2\right]X_2$, where $P = P(C_2H_2)_3$, and $Thio = SC\begin{matrix}NH_2\\NH_2\end{matrix}$, and X = Br or I.

Submitted 6 Jan 1947.

PA 68T33

RAZUMOVA, Z.A.

Compounds of divalent platinum with triethylarsine. Zhur. neorg. khim. 3 no.5:1126-1130 My '58. (MIRA 11:6)

1.Kazanskiy khimiko-tekhnologicheskiy institut im. S.M. Kirova.
(Platinum organic compounds) (Arsine)

Structure of dichlorobistriphenylphosphineplatinum. A. A. Grinberg and Z. A. Razumova. *Zhur. Priklad. Khim.* 27, 105–6(1954).—The structure of $[Pt(Ph_3P)_2Cl_2]$ (I) (cf. Jensen, *C.A.* 31, 3753⁵; C., R. and Troitskaya, *C.A.* 43, 4172g) was examd. I was prepd. by the action of aq. K_2PtCl_4 on alc. Ph_3P with heating and a 1:2 molar ratio of reactants; 1.5 g. Ph_3P in 12 ml. hot EtOH was treated with a hot soln. of 1.2 g. K_2PtCl_4 in 12 ml. H_2O and the mixt. was shaken further 20 hrs. to insure completion of reaction. The ppt. was washed with hot H_2O, hot EtOH, and Et_2O, giving 75% yield of the pure I, insol. in org. solvents, decomp. 308°. I (0.3 g.) mixed with 20 ml. H_2O was treated with large excess of $(CH_2NH_2)_2$ and heated and shaken for a long time leading to gradual soln. The soln. was filtered, cooled, and added to a filtered concd. aq. soln. of 0.3 g. K_2PtCl_4, yielding a pink ppt., which was filtered off; this amounted to 0.4 g. (95%) $[Pt(Ph_3P)_2en][PtCl_4]$ (II). Thus the reaction utilizes equimolar amounts of the reactants and the initial I must have the cis configuration. The reaction with K_2PtCl_4 thus can be formulated as: $[Pt(Ph_3P)_2en]Cl_2 + K_2PtCl_4 \rightarrow 2KCl + II$. It was previously shown that Et_3P shows a strong trans effect, the same being true of phosphites. In the present series, Ph_3P also shows a strong trans effect. Thus II treated with concd. HCl and heated, dissolves slowly and the pink ppt. is then replaced by a white ppt. while the soln. acquires the color of $PtCl_4^{--}$. The dried ppt., m. 305°, is I. Such ready cleavage of the diamine cycle can be explained only by a strong trans effect of the Ph_3P group. G. M. Kosolapoff

AUTHOR: Rakumova, Z. A. 78-3-5-13/39

TITLE: On Compounds of Bivalent Platinum With Triethyl Arsine (O soyedineniyakh dvukhvalentnoy platiny s trietilarsinom)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol 3, Nr 5, pp 1126-1130 (USSR)

ABSTRACT: The compounds of bivalent platinum with triethyl arsine and its isomers were synthetized: $[Pt\{As(C_2H_5)_3\}_2 Cl_2]$, $[Pt\{As(C_2H_5)_3\}_2 Br_2]$, $[Pt\{As(C_2H_5)_3\}_2 J_2]$
The configuration of isomers was determined. By means of the effect of thiourea on cis- and trans bromides, chlorides and iodides of platinum-II- arsenic compounds, it was found that all are of the same structure. Even the solubility of cis- and trans-bromides and chlorides was found.
The following formula was suggested for the obtained thiourea-isomer-compounds.

$$\left[\begin{matrix}(C_2H_5)_3As & & SC(NH_2)_2\\ & Pt & \\ (C_2H_5)_3As & & SC(NH_2)_2\end{matrix}\right]X_2 \quad \text{Cis}$$

$$\left[\begin{matrix}(C_2H_5)_3As & & SC(NH_2)_2\\ & & \\ (NH_2)_2Cs & & As(C_2H_5)_3\end{matrix}\right]X_2 \quad \text{trans}$$

Card 1/2

On Compounds of Bivalent Platinum With Triethyl Arsine 78-3-5-13/39

X = Cl, Br, J
Furthermore, the capability of displacement of triethyl arsine was investigated and it was found difficult to displace. The bond between Pt - As is, under the influence of [illegible], more difficultly destructible than the bond between Pt - N. There are 5 references, 4 of which are Soviet.

ASSOCIATION: Kazanskiy Khimiko-tekhnologicheskiy institut im. S. M. Kirova(Kazan' Chemico-technological Institute imeni S. M. Kirov)

SUBMITTED: May 28, 1957

AVAILABLE: Library of Congress

1. Platinum compounds--Synthesis 2. Triethyl Arsine --Synthesis

Card 2/2

RAMANOVA, Z. A.

Grinberg A. A., Ramanova, Z. A., "Isomeric Thiourea Derivatives of Bivalent Platinum." (p. 282)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1948, Volume 18, No. 2

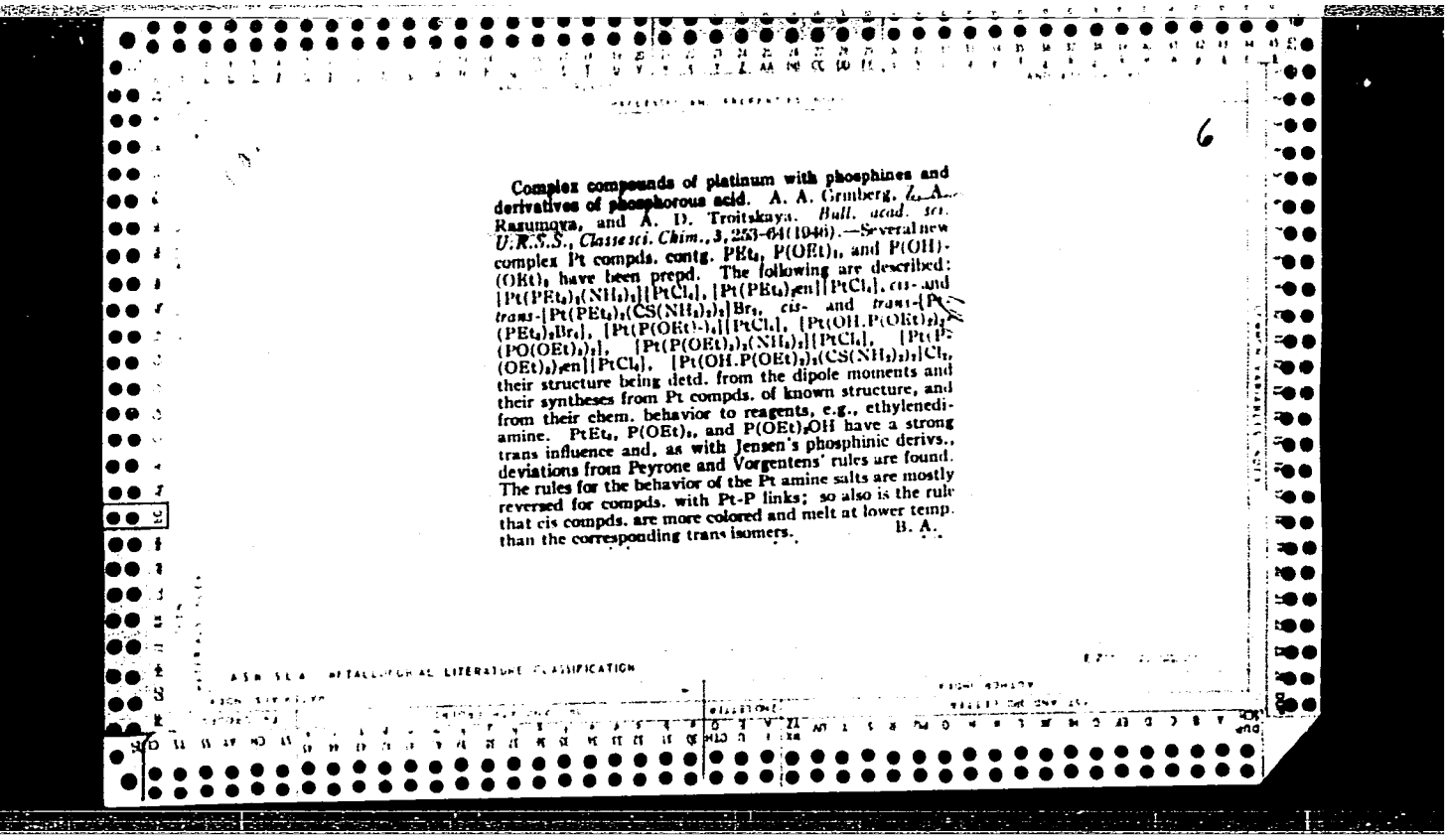
RAZUMOVA, Z. A.

USSR.

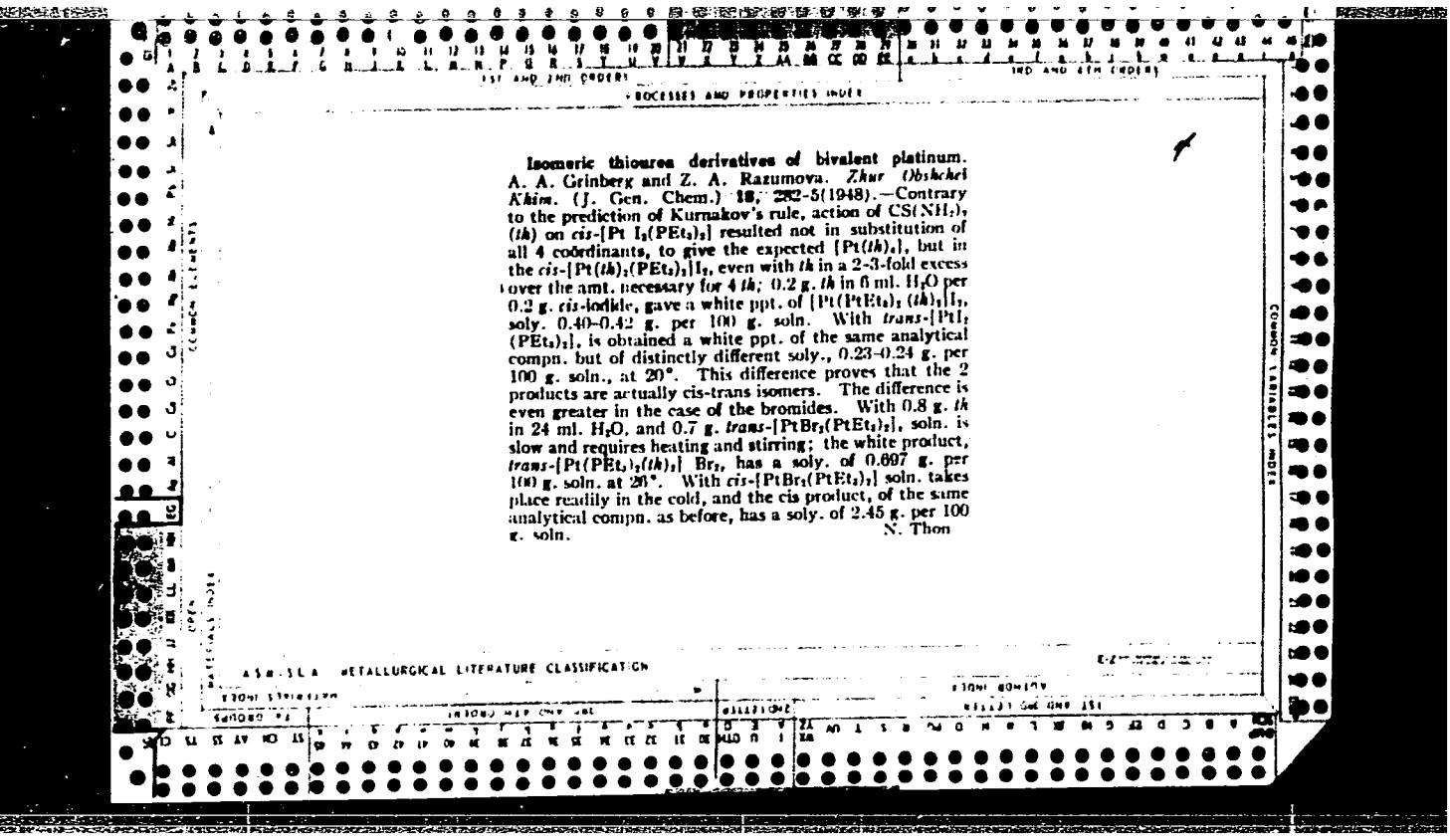
Structure of dichlorobistriphenylphosphineplatinum. A. A. Grinberg and Z. A. Razumova. *J. Appl. Chem. U.S.S.R.* 27, 91–2(1954)(Engl. translation).—See *C.A.* 48, 6308*a*.
H. L. H.

[illegible], [illegible]

[illegible] Mbr. Inst. General & Inorganic C[illegible] . [illegible] Kurnakov Dept. Chem. Sci., Acad. Sci., -1946. "The Complex Compounds of Platinum with Phosphines and Derivatives of Phosphorous Acid," Iz. Ak. Nauk SSSR, Otdel. Khim. Nauk, No. 3, 1946; "Isomeric Thiourea Derivatives of Bivalent Platinum," Zhur. Obshch. Khim., 18, No. 2, 1948. "



Complex compounds of platinum with phosphines and derivatives of phosphorous acid. A. A. Grinberg, L. A. Razumova, and A. D. Troitskaya. *Bull. acad. sci. U.R.S.S., Classe sci. Chim.*, 3, 253-64 (1940).—Several new complex Pt compds. contg. PEt_3, $P(OEt)_3$, and $P(OH)(OEt)_2$ have been prepd. The following are described: $[Pt(PEt_3)_3(NH_3)_2][PtCl_4]$, $[Pt(PEt_3)_2en][PtCl_4]$, *cis*- and *trans*-$[Pt(PEt_3)_2(CS(NH_2)_2)_2]Br_2$, *cis*- and *trans*-$[Pt(PEt_3)_2Br_4]$, $[Pt(P(OEt)_3)_3(NH_3)_2][PtCl_4]$, $[Pt(P(OEt)_3)_2en][PtCl_4]$, their structure being detd. from the dipole moments and their syntheses from Pt compds. of known structure, and from their chem. behavior to reagents, e.g., ethylenediamine. $PtEt_3$, $P(OEt)_3$, and $P(OEt)_2OH$ have a strong trans influence and, as with Jensen's phosphinic derivs., deviations from Peyrone and Vorgentens' rules are found. The rules for the behavior of the Pt amine salts are mostly reversed for compds. with Pt-P links; so also is the rule that cis compds. are more colored and melt at lower temp. than the corresponding trans isomers. B. A.



Isomeric thiourea derivatives of bivalent platinum. A. A. Grinberg and Z. A. Razumova. *Zhur Obshchei Khim.* (*J. Gen. Chem.*) **18**, 282-5(1948).—Contrary to the prediction of Kurnakov's rule, action of $CS(NH_2)_2$, (*th*) on *cis*-$[Pt\ I_2(PEt_3)_2]$ resulted not in substitution of all 4 coördinants, to give the expected $[Pt(th)_4]$, but in the *cis*-$[Pt(th)_2(PEt_3)_2]I_2$, even with *th* in a 2-3-fold excess over the amt. necessary for 4 *th*; 0.2 g. *th* in 6 ml. H_2O per 0.2 g. *cis*-iodide, gave a white ppt. of $[Pt(PtEt_3)_2(th)_2]I_2$, soly. 0.40–0.42 g. per 100 g. soln. With *trans*-$[PtI_2(PEt_3)_2]$, is obtained a white ppt. of the same analytical compn. but of distinctly different soly., 0.23–0.24 g. per 100 g. soln., at 20°. This difference proves that the 2 products are actually cis-trans isomers. The difference is even greater in the case of the bromides. With 0.8 g. *th* in 24 ml. H_2O, and 0.7 g. *trans*-$[PtBr_2(PtEt_3)_2]$, soln. is slow and requires heating and stirring; the white product, *trans*-$[Pt(PEt_3)_2(th)_2]\ Br_2$, has a soly. of 0.697 g. per 100 g. soln. at 20°. With *cis*-$[PtBr_2(PtEt_3)_2]$ soln. takes place readily in the cold, and the cis product, of the same analytical compn. as before, has a soly. of 2.45 g. per 100 g. soln.

N. Thon

USSR/Microbiology. Microbes Pathogenic for Man and Animals F

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57734

Author : Razumova Z. V., Valdokhin F. M.
Inst : Ufa Scientific-Research Institute of Vaccines and Sera
Title : Immunogenesis of Enteral Dysentery Vaccines When Determined at Different Stages of Production

Orig Pub : Tr. Ufimsk. n.-i. in-ta vaktsin i syvorotok, 1957, vyp. 4, 61-68

Abstract : No abstract

Card 1/1

The petrography of clays. I. V. N. Razumova. *Trans. All-Union Sci. Research Inst. Econ. Mineral.* No. 137, 3-50 (in English, 48-9) (1939); *Chimie & industrie* 43, 472.—Clays can be characterized by means of 4 dyes: Crystal Violet, Rhodamine, Patent Blue and Methyl Green, in aq. or alc. soln. (the other properties (optical, etc.) of the substance are taken into consideration at the same time). The dichroism of the colored clay particles is governed by the oriented arrangement of the dye micelles at the surface of the crystal. The ease of coloring of argillaceous minerals is governed by their surface properties.

A. Papineau-Couture

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

15-57-1-577

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1, p 92 (USSR)

AUTHOR: Razumova, V. N.

TITLE: The Weathering Crust in the Northwestern Part of the Kazakhstan Upland (Kora vyvetrivaniya severo-zapadnoy chasti Kazakhskogo nagor'ya)

PERIODICAL: V sb: Kora vyvetrivaniya, Nr 2, Moscow, AN SSSR, 1956, pp 272-298.

ABSTRACT: In the regions where pre-Quaternary landscapes are found, an ancient Mesozoic-Tertiary weathering crust has been preserved. It is locally buried under a cover of Tertiary and Quaternary deposits, but on the eastern slope of the Turgay depression, it is buried under Jurassic and marine Tertiary sediments. The visible thickness of the weathering layer reaches 15 m to 20 m. The following zones of decomposition have been noted: 1) a lower zone of leached rock (hydrolysis of the foliated minerals with partial introduction of both

Card 1/2

silica and iron oxide at the base); 2) a zone of clay of complex composition (the primary minerals are entirely decomposed); pseudomorphs of hydromicas, hydrochlorite, and montmorillonite are present; 3) a zone of colored kaolins and ochers (decomposition of iron-bearing clay minerals from the previously mentioned zones, the introduction of silica and iron oxides); and 4) an upper zone of white kaolins. Marked changes have been observed in three weathering profiles (nine silicate chemical analyses). The historical development of the weathering crust is given: 1) peneplanation-tectonic stabilization of the Kazakhstan upland at the end of the Paleozoic and erosion of this mountainous region during the Triassic in a hot, dry climate; 2) development of the crust of weathering, changing at the beginning of the Lower Jurassic from mechanical weathering to chemical weathering, and subsequent formation of the four zones of weathering; and 3) erosion and alteration of the weathering crust from Jurassic to Quaternary time. A great similarity is noted between the weathering crust examined in this region and those in the Southern Urals and in central Karatau.

Card 2/2

V. A. V.

[redacted], I. A.

Some problems in unsettled gas filtration in coal layers (Linear equation method) "Inzhinernyy Sbornik" by Academy of Science of the USSR, Department of Technical Sciences, Institute of Mechanics. 1955.

RAZUMOVA,V.N. (Moscow)

Some problems of unsteady gas seepage in coal mines (a method of equation linearization) Inzh.sbor. no.21:180-188 '55.
(MLRA 8:11)

1. Moskovskiy energeticheskiy institut
(Coal mines and mining) (Mine gases)

RAZUMOVA, V.N.

Nature of red and green colors in rocks of Mesozoic and Cenozoic red beds in central and southern Kazakhstan. Izv. AN SSSR. Ser. geol. 25 no.5:41-48 My'60. (MIRA 13:10)

1. Geologicheskiy institut AN SSSR, Moskva.
(Kazakhstan--Rocks, Sedimentary)

RAZUMOVA, Ye.P.; GUTKOVSKAYA, A.I.

Copepoda in a focus of diphyllobothriasis of the lake-river type [with summary in English]. Med.paraz/ i paraz.bolezn. 23 no.1: 89-94 Ja-F '59. (MIRA 12:3)

1. Iz TSentral'noy nauchno-issledovatel'skoy laboratorii gigiyeny i sanitarii na vodnom transporte.
(CRUSTACEA,
copepods, transm. of diphyllobothriasis (Rus))
(TAPEWORM INFECTION, transm.
diphyllobothriasis by copepods (Rus))

AUTHOR: Razumova-Sretenskaya, V. N. (Moscow). 24-6-17/24

TITLE: Certain axis-symmetrical movements of the gas in the coal seam. (Nekotorye osesimmetrichnyye dvizheniya gaza v ugol'nom plaste).

PERIODICAL: "Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk" (Bulletin of the Ac.Sc., Technical Sciences Section), 1957, No.6, pp.119-125 (U.S.S.R.)

ABSTRACT: The problem is considered of the effect of a well drilled in a coal seam and revealing a sufficiently large surface whereby the axis of the well is perpendicular to the open surface of the coal. An analogous problem of two-dimensional flow of gas in a coal seam was considered and accurate solutions were obtained by Polubarinova-Kochina, P. Ya. (1) for a well in the form of an infinitely thin slot for several types of openings of the seam. In this paper the author considers an axis-symmetrical problem, limiting himself to an approximate method of solution by means of sources and drainage which are uniformly distributed along sections of a straight line. This method was used by Samsioe, A.F. (2) for investigating the problem of wells in a pressure seam. The flow rate formula for axis-symmetrical motion is derived in para.1. The point flow is dealt with in para.2 and an approximate conception of the well is conveyed in para.3 by means of linear sources and drainage flow. The use of the

Card 1/2

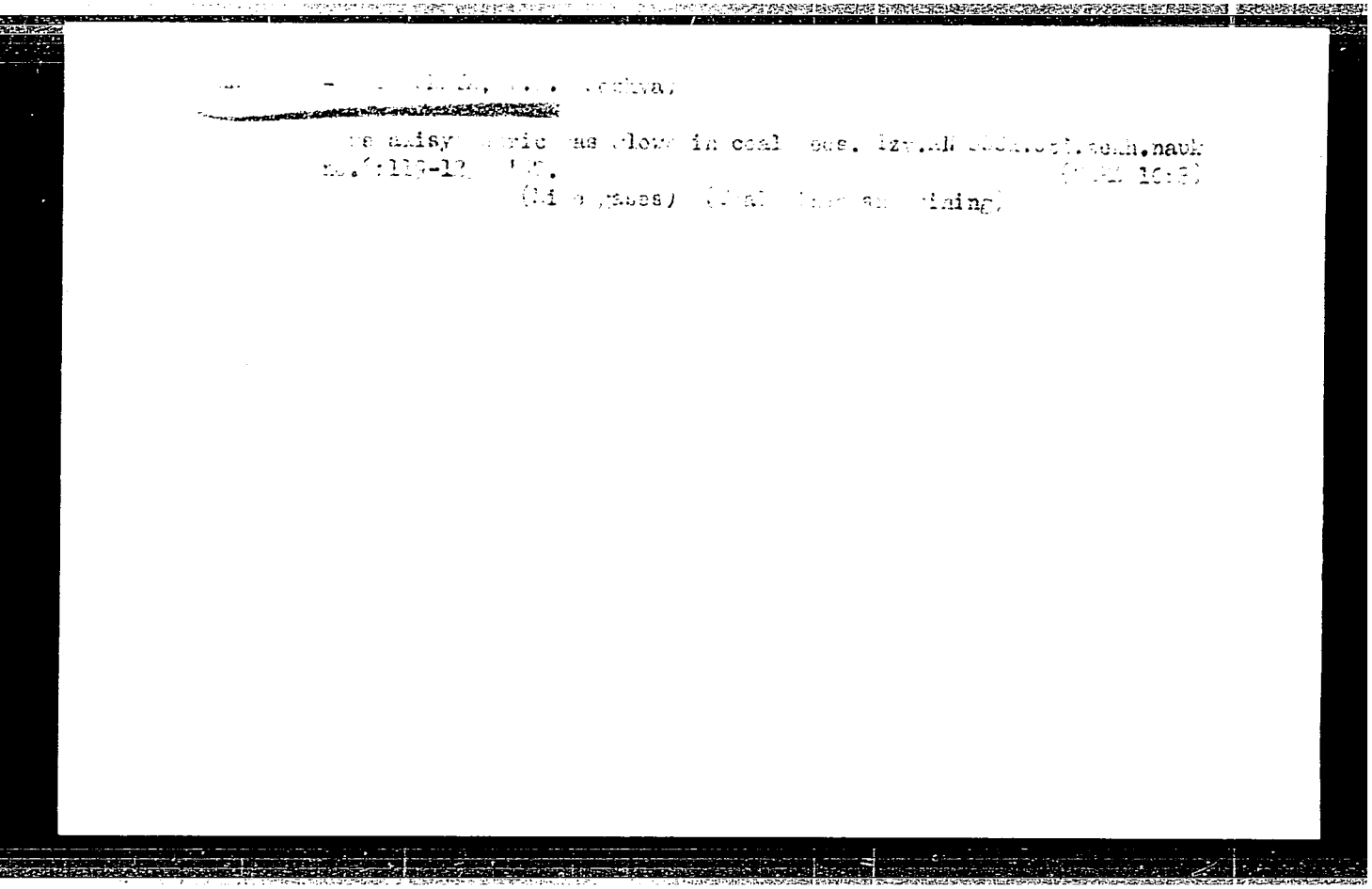
Certain axis-symmetrical movements of the gas in the coal seam. (Cont.)

derived equations is illustrated by means of two examples. The work described in this paper was carried out under the guidance of P. Ya. Polubarinova-Kochina.
There are 6 figures, 3 references, two of which are Slavic.

SUBMITTED: October 19, 1956.

AVAILABLE:

Card 2/2



RAZUMOVIC, Ferdo

Suction pumps. Pt. 1. Fogon 5 no.7/8:119-122 Jl-Ag '64.

RAZUMOVIC, Ferdo

Hydraulic machines. Pt. 2. Pogon 5 no.9/10:132-137 S-O '64.

Ejectors and injectors. Ibid: 141-143.

RAZUMOVIĆ Ferdo, nastavnik

Centrifugal pumps. Pogon 5 no.1/2:10-15 Ja-F '64.

1. Railroad Industrial School, Zagreb. Member of the Board of Editors, "Pogon".

RAZUMOVIC, Perdo, nastavnik

Hydraulic machines. Pt.1. Pogon 5 no. 5/6[illegible] My-Je '64

1. Railroad Industrial School, Zagreb.

RAZUMOVIC, Ferdo, nastavnik

Steam turbines. Pogon 4 no.5/6:68-72 My-Je-'63.

1. Zeljeznicka ind. skola, Zagreb, clan Redakcionog odbora, "Pogon".

RAZUMOVIC, Ferdo

Centrifugal suction pumps. Pt. 1. Pogon 4 no.1/2:21-26 Ja-F '63.

RAZUMOVIC, Ferdo, nastavnik

Steam turbines. Pt. 2. Pogon 4 no.3/4:36-38 Mr-Ap '63.

1. Zeljeznicka ind. skola, Zagreb.

RAZUMOVIC, Ferdo, nastavnik

Steam turbines. Pt. 1. Pogon 4 no.1/2:1-4 Ja-F '63.

1. Zeljeznicka ind. skola, Zagreb, i clan Redakcionog odbora, "Pogon."

RAZUMOVIC, Ferdo

Steam turbines. Pogon 3 no.9/10:129-133 S-O '62.

RAZUMOVIC, Ferdo, nastavnik

Steam turbines. Pogon 3 no.11/12:180-182 N-D '62.

1. Zeljeznicka industrijska skola, Zsgreb, clan Redakcionog odbora, "Pogon".

RAZUMOVIC, Ferdo

Steam turbines. (To be contd.). Pogon 3 no.3/4:44-49 Mr-Ap. '62.

RAZUMOVIC, Ferdo

Cranes and conveyors. Pogon 2 no.11/12:191-197 N-D '61.

RAZUMOVIC, Ferdo

Steam turbines. Pogon 3 no.5/6:65-71 My-Je '62.

RAZUMOVIC, Ferdo

Steam turbines. (To be contd.) Pogon 3 no.7/8:97-101 Jl-Ag '62.

RAZUMOVIC, Ferdo, nastavnik

Steam turbines. Pogon 4 no. 7/8:97-101 Jl/Ag'63.

1. Zeljeznicka ind. skola, Zagreb, i clan Redakcionog odbora, "Pogon".

OSTROVSKIY, Yu.M.; LUKASHIK, N.K.; RAZUMOVICH, A.N.; BALAKLEYEVSKIY, A.I.; DOSTA, G.A.; TREBUKHINA, R.V.; LARIN, R.S.; KARPUT', S.N.; KOMAROVA, B.P.; NEPOCHELOVICH, N.S.; DVORYANINOVICH, L.N.; MOYSEYENOK, A.G.; MANDRIK, K.A.; GALITSKIY, E.A.; MATYSIK, M.S.; PODOBED, V.G.; MAKARINA-KIBAK, L.Ya.

Differentiation of specific and nonspecific metabolic shifts in an acute avitaminosis B_1 caused by oxythiamine. Vop.pit. 24 no.4:41-48 Jl-Ag '65. (MIRA 18:12)

1. Kafedra biokhimii (zav. - dotsent Yu.M.Ostrovskiy) meditsinskogo instituta, Grodno. Submitted July 23, 1964.

RAZUMOVICH, A.N.; DOSTA, G.A.

Relationship between thiamine disulfide and the respiratory chain of mitochondria. Biokhimiia 28 no. 3:439-444 My-Je '63. (MIRA 17:2)

1. Chair of Biochemistry, State Medical Institute, Grodno.

BAZUMOVICH, A.N.

Effect of thiamine derivatives on the structure of mitochondria. Vestsi AN BSSR. Ser. biial. nav. no.2: 78-82 '65. (MIRA 18:12)

7

OSTROVSKIY, Yu. M.; LUKASHIK, N. K.; RAZUMOVICH, A. N.; TREBUKHINA, R. V.; DOSTA, G.; BALAKLEYEVSKIY, A. I.; MADZHUL, A.

"On the Participation of Thiamine in Specific and Nonspecific Regulation of Some Metabolic Pathways."

report submitted for 6th Intl Biochemistry Cong, New York City, 26 Jul-1 Aug 1964.

RAZUMOVICH, A.N.

Oxidation-reduction transformations of thiamine. Ukr. biokhim. zhur. 37 no.1:105-109 '65. (MIRA 18:5)

1. Department of Biochemistry of Grodno Medical Institute, and the Section of Gerontology of the Academy of Sciences of the White-Russian S.S.R.

OSTROVSKIY, Yu.M.; RAZUMOVICH, A.N.

Effect of thiamine derivatives on oxidative phosphorylation.
Biokhimiia 27 no.3:458-462 My-Je '62. (MIRA 15:8)

1. Chair of Biochemistry, State Medical Institute, Grodno.
(THIAMINE) (LIVER) (PHOSPHORYLATION)

SUPRON, L.F., dots., otv. red.; ARINCHIN, N.I., prof., red.; GEL'BERG, S.I., prof., red.; KLEPATSKIY, B.I., prof., red.; LIBERZON, G.Ya., prof., red.; NOVIKOV, I.I., kand. med.nauk red.; RAZUMOVICH, A.N., assistent, red.

[Abstracts of the reports of the Fourth Scientific Session on the Problem: Physiology, Morphology and Pathology of the Cardiovascular System] Tezisy dokladov Nauchnoi sessii po probleme: Fiziologiia, morfologiia i patologiia serdechno-sosudistoi sistemy. Grodno, Grodnenskii med. in-t, 1962. 207 p. (MIRA 17:10)

1. Nauchnaya sessiya po probleme: Fiziologiya, morfologiya i patologiya serdechno-sosudistoy sistemy, 4th, 1962. 2. Zaveduyushchiy kafedroy patologicheskoy fiziologii Grodenskogo meditsinskogo instituta (for Supron). 3. Zaveduyushchiy kafedroy normal'noy fiziologii Grodenskogo meditsinskogo instituta (for Arinchin). 4. Kafedra normal'noy anatomii Grodenskogo meditsinskogo instituta (for Novikov). 5.Zaveduyushchiy kafedroy mikrobiologii Grodenskogo meditsinskogo instituta (for Gel'berg). 6. Zaveduyushchiy kafedroy obshchey khirurgii Grodenskogo meditsinskogo instituta (for Klepatskiy). 7. Zaveduyushchiy kafedroy nervnykh bolezney Grodenskogo meditsinskogo instituta (for Liberzon). 8. Kafedra biokhimii Grodenskogo meditsinskogo instituta (for Razumovich).

RAZUMOVICH, M. B.

USSR/Biology - Antibiotics Apr 51

"The Effect of Phytoncides of Onion, Garlic, and Bird Cherry on Seeds of Higher Plants," M. B. Razumovich, S. M. Naumov

"Priroda" No 4, pp 64, 65

Phytoncides, which suppress microorganisms, were also found to have an inhibiting effect on cells of higher plants and flower dust. Results obtained in this instance with both dissolved and volatile phytoncides show that they also inhibit the germination of seeds of wheat and rye.

221T9

RAZUMOVICH, M. B. PA 243T18

USSR/Medicine - Antibiotics Jan 53

"The Action of Volatile Phytoncides on Photographic Emulsions," Cand Biol Sci M. B. Razumovich, V. T. Atarov, Brest State Pedagogic and Teachers' Inst imeni A. S. Pushkin

"Priroda" Vol 42, No 1, pp 95-96

Detection of volatile phytoncides by means of protozoal dough, as suggested by B. P. Tokin, is not always reliable. However, volatile phytoncides exert a noticeable effect on photographic plates and paper, so that this method can be used for establishing the presence of phytoncides. Tests of the method were carried out with onions, garlic, and bird cherry.

243T18

RAZUMOVICH, M.B.

USSR/ Biology - Phytocides

Card 1/1 Pub. 86 - 11/39

Authors : Razumovich, M. B., Cand. Biol. Sc.; and Atarov, V. T.

Title : Some peculiarities of the action of phytocides on a photographic emulsion

Periodical : Priroda 44/3, 84 - 85, Mar 1955

Abstract : An account is given of experimentation with phytocides in the emulsion on photographic plates, using floating phytocides previously adsorbed in milk or water and others derived directly from a garlic pulp. The variation in the effect of the phytocides on the plates was found to depend on the kind of phytocide. Illustrations.

Institution : .....

Submitted : .....

COUNTRY : USSR
CATEGORY : Pharmacology and Toxicology. Medicinal Plants.

ABS. JOUR. : RZhBiol., No. 1 1959, No. 4595

AUTHOR : Razumovich, M. B.
INST. : AS BSSR
TITLE : Certain Experimental Data on Physiological Action of Phytoncides upon Vertebrates

ORIG. PUB. : Vestsi AN BSSR, ser. biyal. n., Izv. AN BSSR, ser. biol. n., 1956, No.2, 93-100
ABSTRACT : Fresh crushed leaves of Padus racemosa (750-800 mg) were placed under a bell jar with frogs. In another variant of experiment the hind legs of frogs, hung on a stand, were lowered down into a vessel of 250 cm^3, in which 5 g of leaves were placed. The phytoncides of Padus markedly increased the excitability of animals during the first minutes of the experiment. Thereafter,

CARD: 1/2

RAZUMOVICH, M.B., kandidat biologicheskikh nauk; NAUMOV, S.M.

Effect of phytoncides on potatoes. Agrobiologiia no.2:131-132 Mr-Ap '57. (MLRA 10:5)

1.Brestskiy pedagogicheskiy institut imeni A.S. Pushkina.
(Phytoncides) (Potatoes)

26-58-7-24/48

AUTHOR: Razumovich, M.B., Candidate of Biological Sciences

TITLE: The Effect of Birdcherry Phytoncides on the Hemoglobin Content in the Frog (Fitontsidy cheremukhi i soderzhaniye gemoglobina u lyagushki)

PERIODICAL: Priroda, 1958, Nr 7, pp 99-101 (USSR)

ABSTRACT: Research results of K.M. Bykov, M.A. Usiyevich, V.N. Chernigovskiy and A.Ya. Yaroshevskiy based on the concept of the regulating influences of the higher sections of the central nervous system have greatly changed and thereby expanded the knowledge of the role of blood in the organism. Recently, 50 tests were made with Rana ridibunda frogs, each exposed to the effect of 5 grams of finely ground Cerasus padus (birdcherry) leaves under glass bells of 4 liter content. The experiments were carried out at room temperature at the same time of the day. After a brief period of excitement the frogs fell into a state of depression. At 20 min intervals, blood was taken from the frogs' tongues or legs and the hemoglobin content determined by aid of the Sali hemometer. After 30 min the hemoglobin content of the blood was 7 to 15% below the normal level. After 60 min the hemoglobin

The Effect of Birdcherry Phytoncides on the Hemoglobin Content in the Frog

content had decreased by 12 to 25% and, despite an increase, rarely returned to normal when the frogs were removed from the glass bell. P.V. Terentyev, V.N. Chernigovskiy, A.Ya. Yaroshevskiy, M.A. Usiyevich and other researchers found out previously that the hemoglobin content of the blood in frogs and other animals varies depending on the season and the mating activities. Further investigation of these phenomena, those recorded in nature and experimental results, may lead to an exact insight into the stimulation, control and blocking mechanisms within the central nervous system with respect to the influences exerted on the increase or decrease of erythrocytes and the change of the hemoglobin content in the blood.

ASSOCIATION: Brestskiy pedagogicheskiy institut (The Brest Pedagogical Institute)

1. Biology--Frogs--Physiology

RAZUMOVICH, M.B., kand. biol. nauk,; KUSHNERUK, A.G.,; MIKHNYUK, N.F.

Medicinal properties of phytoncides. Zhivotnovodstvo 20 no. 7:43-45 Jl '58. (MIRA 11:8)

1. Zhivotnovod kolkhoza "Molodaya gvardiya," Brestskogo rayona, Brestskoy oblasti (for Kushneruk). 2. Direktor shkoly Berestovitskogo rayona, Grodnenskoy oblasti (for Mikhnyuk).
(Phytoncides)
(Calves--Feeding and feeding stuffs)

RAZUMOVICH, M.B., kand. biol. nauk

Some features of the effect of phytoncides on the vegetative nervous system. Vestsi AN BSSR. Ser. biial. nav. no.3:91-98 '59. (MIRA 12:12)

(PHYTONCIDES) (NERVOUS SYSTEM, AUTONOMIC)

RAZUMOVICH, M.B.; DZIK, M.F.; ANTONYUK, S.A.

Prophylaxis in poisoning with phosphorus organic compounds.
Nauch.dokl.vys.shkoly; biol.nauki no.3:116-119 '59.
(MIRA 12:10)

1. Rekomendovana kafedroy normal'noy fiziologii Brestskogo pedagogicheskogo instituta im. A.S.Pushkina.
(PHOSPHORUS ORGANIC COMPOUNDS--TOXICOLOGY)

RAZUMOVICH, M.B.; MARGOLIN, V.N.

Physiological effect of phytoncides. Nauch.dokl.vys.shkoly; biol. nauki no.2:78-83 '60. (MIRA 13:4)

1. Rekomendovana kafedroy normal'noy fiziologii Brestskogo pedagogicheskogo instituta.
(PHYTONCIDES) (NERVES)

RAZUMOVICH, M.B., kand.biol.nauk; BELENSHCHIKOV, L.D. [Bialinshchykau, L.D.]

Effect of phytoncides on subordinative chronaxy. Vestsi AN BSSR. Ser. biial. nav. no.3:61-65 '60. (MIRA 14:1)
(PHYTONCIDES) (CHRONAXIA)

RAZUMOVICH, M.B.; KHITRYKH, N.S.

Effect of phytoncides on the activity of the isolated heart. Nauch. dokl.vys.shkoly: biol.nauki no.4:93-96 '60. (MIRA 13:11)

1. Rekomendovana kafedroy normal'noy fiziologii Brestskogo pedagogicheskogo instituta.
(PHYTONCIDES)
(HEART)

RAZUMOVICH, M.B.

Effect of the volatile products of tissue decomposition on the photographic emulsion. Zhur.nauch.i prikl.fot.i kin. 5 no.1:39-43 Ja-F '60. (MIRA 13:5)

1. Pedagogicheskiy institut, Brest.
(Photographic emulsion)
(Phytoncides)
(Photography--Scientific applications)

RAZUMOVICH, M.B.; MARGOLIN, V.N.

Effect of phytonicides of garlic, onion and birdcherry on the deparabiotizing activity of nervous centers. Nauch. dokl. vys. shkoly; biol. nauki no.2:107-115 '61. (MIRA 14:5)

1. Rekomendovana kafedroy normal'noy fiziologii Brestskogo pedagogicheskogo instituta.

(PHYTONCIDES) (NERVOUS SYSTEM)

NAZUMOVICH, M.B., MARGOLIN, V.N.

Changes in the functional properties of nerves at the poles of direct current due to the action of phytoncides on nerve centers. Nauch. dokl. vys. shkoly; biol. nauki no.4:66-70 '61. (MIRA 14:11)

1. Rekomendovana kafedroy normal'noy fiziologii Brestskogo pedagogicheskogo instituta.
(NERVES) (PHYTONCIDES) (ELECTROPHYSIOLOGY)

RAZUMOVICH, M.B.; MEDRESH, Ye.A.; SPIRIDONOVA, O.S.

Use of volatile garlic phytonicides in complex therapy of Trichomonas colpitis. Akush.i gin. 37 no.2:109-110 F '61. (MIRA 14:3)

1. Iz zhenskoy konsul'tatsii Brestskogo rodil'nogo doma (glavnyy vrach I.F. Koroleva).
(GARLIC) (TRICHOMONIASIS) (PHYTONCIDES)

RAZUMOVICH, M.B.; MARGOLIN, V.N. [Marholin, V.N.]

Afferent arcs of interoceptive reflexes from the canine uterus. Fiziol.zhur. [Ukr.] 10 no.4:527-529 Jl-Ag '64. (MIRA 18:11)

1. Kafedra fiziologii Brestskogo pedagogicheskogo institut i laboratoriya serdechno-sosudistoy fiziologii AN Belorusskoy SSR, Minsk.

L 63674-65

ACCESSION NR: AP5021929 UR/0325/64/000/004/0071/0073

15
B

AUTHOR: Razumovich, M. B.

TITLE: Effect of phytoncides on the optimum and pessimum of a nerve-muscle preparation

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiye nauki, no. 4, 1964, 71-73

TOPIC TAGS: neurology, myology, pharmacology, drug, drug effect, muscle physiology, nervous system

Abstract: Functional mobility (lability) is a parameter of the functional state of nerve-muscle tissue excitation process--its rate. This parameter is exceptionally importat in studying various physical and chemical agents, for these agents can influence the course of nerve responses through the factor of lability, thus changing the relationship between the processes of excitation and inhibition.

The author investigated the effect of phytoncides on the optimum and pessimum of the gastrocnemius, recognized as fairly accurate indices of the lability of a nerve-muscle preparation. In the great majority of experiments, a 7-minute exposure to garlic resulted in the pessimum shifting to the higher frequencies, an indication of increased lability of the preparation. In 8 out of 20 experiments, the pessimum remained the same as before alteration at the same frequencies of stimulation (by an EI-1 impulse generator),

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L 63674-65

ACCESSION NR: AP5021929

but the peaks of the muscular contractions were unchanged in one case, higher in five, and slightly lower in two. There virtually no changes in the optimum and pessimum after a 15-minute exposure, apparently the result of adaptation by the nerve-muscle preparation to the phytoncide. The author ascribes the shifts in the optimum and pessimum to the phase nature of the parabiotic process.

Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 27Jun63 ENCL: 00 SUB CODE: LS

NR REF SOV: 005 OTHER: 000 JPRS

Card 2/2

RAZUMOVICH, M.B.; MARGOLIN, V.N. [Marholin, V.N.]

Electrocardiographic data obtained following the transection of the spinal cord and some vegetative nervous formations. Vestsi AN BSSR Ser. biial. nav. no.1:65-72 '62. (MIRA 17:9)

RAZUMOVICH, M.B.; KHANIN, M.L.; KAZAKEVICH, Ye.I.; PAVLENKO, O.P.; YERYSHEV, A.V.

Effect on the photographic emulsion of the volatile products of tissue decomposition occurring during inflammatory processes. Zhur. nauch. i prikl. fot. i kin. 9 no.1:60-61 Ja-F'64. (MIRA 17:2)

1. Pedagogicheskiy institut imeni A.S. Pushkina, Brest.

KAZUMOVICH, M.S., POLYANSKOV, V.I.

Interrelations between corn and pod-bearing plants grown together. Bot., Issl. Bel. otd. VIO no.5:204-205 '63.
(MIRA 17:5)

RAZUMOVICH, M.B., kand.biologicheskikh nauk

Medicinal properties of corn juice treated with phytoncides.
Zhivotnovodstvo 23 no.8:65-66 Ag '61. (MIRA 16:2)
(Phytoncides) (Corn (Maize))
(Veterinary materia medica and pharmacy)

RAZUMOVICH, Mikhail Borisovich; NAYDOVICH, A.N., red.; KARPINOVICH, I.Ya., tekhn. red.

[Entertaining physiology]Zanimatel'naia fiziologiia. Minsk, Gos.uchebno-pedagog.izd-vo M-va prosv. BSSR, 1962. 171 p. (MIRA 15:10)

(PHYSIOLOGY)

BATKOV, Yu.V.; RAZUMOVICH, M.B.; ASS, M.Ya.

Infectious ectromelia in white mice. Lab. delo 8 no.3:42-44 Mr '62. (MIRA 15:5)

1. Kafedra zoologii i fiziologii (zav. - dotsent M.B.Razumovich) Brestskogo pedagogicheskogo instituta imeni Pushkina.
(VIRUS DISEASES) (MICE—DISEASES AND PESTS)

RAZUMOVICH, M.V., kand. biol. nauk

Chokecherry phytoncides and hemoglobin contents of the frog. Priroda 47 no. 7:99-101 Jl '58. (MIRA 11:8)

1. Brestskiy pedagogicheskiy institut.
(Phytoncides)
(Chokecherry)
(Hemoglobin)

RAZUMOVICH, N.N., kandidat yuriridicheskikh nauk.

In the A.IA.Vyshinskii Institute of Law (meeting of the scientific council devoted to problems of legal science). Vest.AN SSSR 26 no.6: 119-121 Je '56. (Law) (MLRA 9:9)

USSR/ Scientists - Commemoration

Card 1/1 Pub. 124 - 33/39

Authors : Razumovich, N. N., Cand. Jur. Sc.

Title : Two hundred years since the death of Montesquieu

Periodical : Vest. AN SSSR 25/5, 97 - 98, May 1955

Abstract : An account is given of a party held on the 15th of March by the Soviet Committee for Defense of Peace, Academy of Science, and the All-Union Society for Cultural Relations with Foreigners. The party commemorated the 200th anniversary of the death of Charles Louis de Montesquieu, outstanding French jurist and philosopher.

Institution : .....

Submitted : .....

RAZUMOVICH, Nikolay Nikanorovich; RONIN, S.L., otv.red.; IODKOVSKIY, A.N., red.izd-va; GUSEVA, A.P., tekhn.red.

[Organizational and legal forms of the socialist collectivization of industry in the U.S.S.R., 1917-1920] Organizatsionno-pravovye formy sotsialisticheskogo obobshchestvleniia promyshlennosti v SSSR, 1917-1920 gg. Moskva, Izd-vo Akad.nauk SSSR, 1959. 141 p. (MIRA 12:6)
(Industry)

L 34352-66 EWT(1)

ACC NR: AP6022036 SOURCE CODE: UR/0120/66/000/003/0212/0213

AUTHOR: Dalinenko, N. K.; Razumovskaya, A. I.

ORG: Nuclear Physics Institute, SO AN SSSR (Institut yadernoy fiziki SO AN SSSR)

TITLE: Photomultiplier sensitive in the ultraviolet spectral region

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1966, 212-213

TOPIC TAGS: photomultiplier, photoelectric effect

ABSTRACT: The design, basic characteristics and parameters of a photomultiplier sensitive in the ultraviolet region are briefly described. The photomultiplier, bearing the designation FEU-57, is several orders of magnitude more sensitive in the ultraviolet than it is in the visible spectral region. It has a plane frontal window of uviol glass and a photocathode with an effective diameter of 44 mm. The photomultiplier (maximum length, 120 mm; diameter, 52 mm) has a tellurium-cesium photocathode. Its spectral characteristics are measured by a dual monochromator beginning at 2200 Å using a hydrogen lamp as the light source. The spectral sensitivity of the photocathode for three FEU-57's in absolute units with quantum yield of 0.5%, 5% and 9% is given in the accompanying figure. The photomultiplier has an average gain of about 10^5 to 10^6 at a 1700-v operating voltage. The output dark current is

Card 1/2 UDC: 621.383.5

L 34382-66

ACC NR: AP6022036

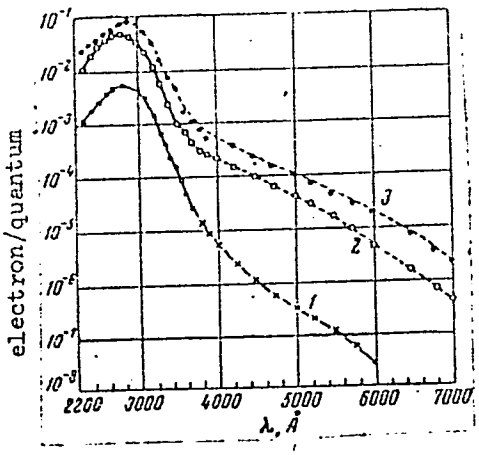


Fig. 1. Spectral sensitivity of the FEU-57 in absolute units

1 - Photocathode with a 0.5% quantum yield;
2 - photocathode with a 5% quantum yield;
3 - photocathode with a 9% quantum yield.

within 10^{-9}—10^{-11} a at the same operating voltage. Orig. art. has: 4 figures. [JR]

SUB CODE: 09/ SUBM DATE: 10May65/ ORIG REF: 003/ OTH REF: 002/ ATD PRESS: 5034

Card 2/2

VIL'DGRUBE, G.S.; DALINENKO, N.K.; RAZUMOVSKAYA, A.I.

Photoelectron multiplier with a flat front window. Prib. i tekh.eksp. 6 no.4:74-76 Jl-Ag '61. (MIRA 14:9)
(Photoelectric multipliers)

SHEFER, D.G.; MALKIN, M.F.; NEYGALIKH, M.G.; RAZUMOVSKAYA, A.M.
SHERSHEVER, S.M.; SOSKOVA, A.V.

Medical and prophylactic significance of the use of anticoagulants in disorders of the brain blood supply. Zhur. nerv. i psikh. 60 no. 6:702-706 '60. (MIRA 13:12)

1. Klinika nervnykh bolezney Sverdlovskogo meditsinskogo instituta, Institut kurortologii i fizioterapii nervologicheskiye statsionary Sverdlovska.
(BRAIN—BLOOD VESSELS) (ANTICOAGULANTS)

SAVCHUK, Petr Mironovich; BARANENKOV, G.S., redaktor; RAZUMOVSKAYA, A.P., redaktor; GAVRILOV, S.S., tekhnicheskiy redaktor

[A collection of problems in higher mathematics for technical schools] Sbornik zadach po vysshei matematike dlia tekhnikumov. Pod red. G.S. Baranenkova. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 132 p. (Mathematics--Problems, exercises, etc.) (MLRA 9:12)

EYLER, Leonard [Euler Leonhard]; LUR'YE, S.Ya. [translator]; VYGODSKIY, M. Ya.[translator]; RAZUMOVSKAYA, A.P.,redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor

[Integral calculus. Translated from the Latin] Integral'noe ischislenie. Perevod s Latinskogo S.IA. Lur'e i M. IA. Vygodskogo. Predisl. M. IA. Vygodskogo. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, Vol. 1. 1956. 415 p. (MLRA 10:5)
(Calculus, Integral)

PEREL'MAN, Yakov Isidorovich; BOLTYANSKIY, V.G., redaktor; RAZUMOVSKAYA, A.P., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[Recreations in algebra] Zanimatel'naia algebra. Izd. 6-e. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1955. 183 p. (MLRA 9:3)
(Algebra--Problems, exercises, etc.)

KAGAN, Veniamin Fedorovich; RAZUMOVSKAYA,A.P., redaktor; AKHLAMOV,S.N., tekhnicheskiy redaktor.

[Lobachevskii and his geometry; introductory sketches] Lobachevskii i ego geometriia; obshchedostupnye ocherki. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1955. 301 p. (MLRA 9:2)
(Lobachevskii, Nikolai Ivanovich, 1793-1856) (Geometry, Non-Euclidean)

KUROSH, Aleksandr Gennadiyevich; RAZUMOVSKAYA, A.P., redaktor;
MURASHOVA, N.Ya., tekhnicheskiy redaktor

[Course in higher algebra] Kurs vysshei algebry. Izd.4-oe, perer.
Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1955. 379 p. (MLRA 8:8)
(Algebra)

AL-KASHI, Dzhemshid Giyaseddin [Al-Kāshī, Jamshid Ben Mas'ūd]; ROZENFEL'D, B.A. [translator]; SEGAL', V.S., redaktor; YUSHKEVICH, A.P., redaktor; RAZUMOVSKAYA, A.P., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor

[Key to arithmetic. Treatise on the circumference. With a supplement containing the Arabic manuscripts of both treatises, Translated from the Arabic] Kliuch arifmetiki. Traktat ob okruzhnosti. Perevod s arabskogo B.A.Rozenfel'da. Red. V.S.Segalia i A.P.IUshkevicha. Kommentarii A.P.IUshkevicha i B.A.Rozenfel'da. S prilozheniem reproduktsii arabskikh rukopisei oboikh traktatov. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 566 p. (MIRA 10:7)
(Geometry, Plane)

KOROVKIN, Pavel Petrovich; RAZUMOVSKAYA, A.P., redaktor; NEGRIMOVSKAYA, P.A., tekhnicheskiy redaktor

[Inequalities] Neravenstva. Izd. 2-oe. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 55 p. (Populiarnye lektsii po matematike, no.5) (MLRA 10:2)

(Mathematics)

RAZUMOVSKAYA, A.P.

VENTSEL', Yelena Sergeyevna; RAZUMOVSKAYA, A.P., red.; GAVRILOV, S.S., tekhn.red.

[Theory of probabilities] Teoriia veroiatnostei. Moskva, Gos. izd-vo fiziko-matematicheskoi lit-ry, 1958. 464 p. (MIRA 11:5)
(Probabilities)

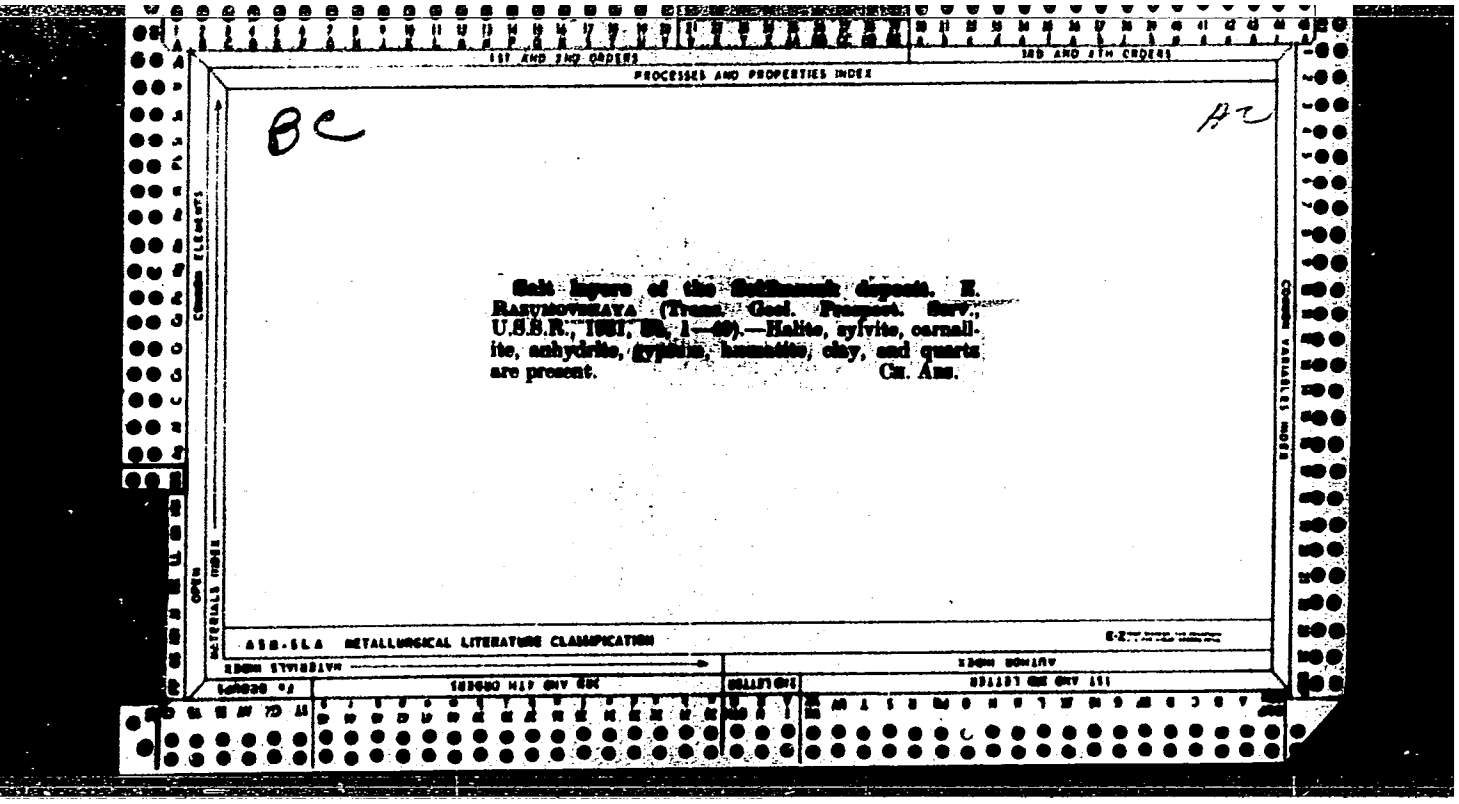
LOPSHITS, Abram Mironovich; RAZUMOVSKAYA, A.P., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor

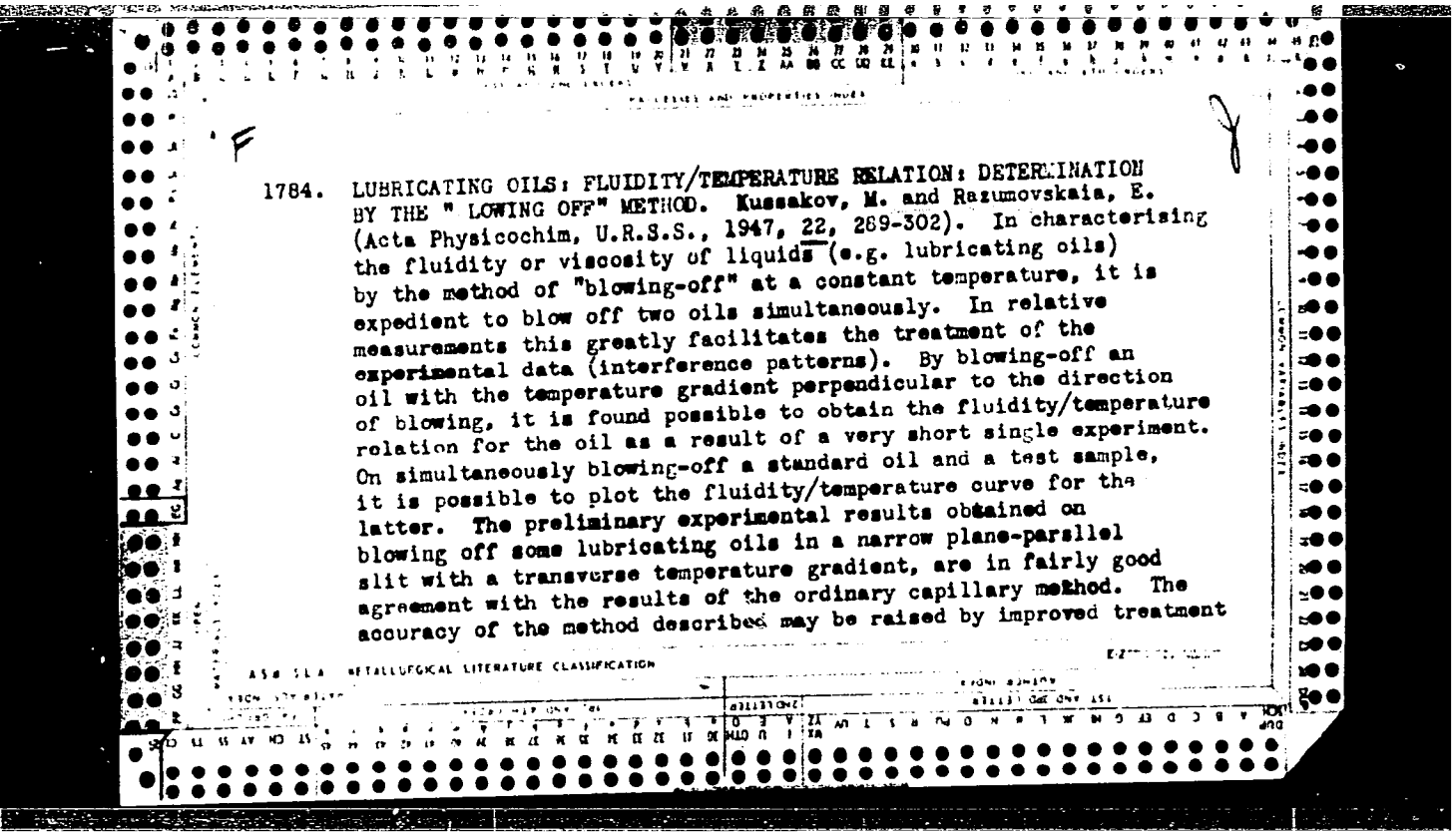
[Calculating the area of oriented figures] Vychislenie ploshchadei orientirovannykh figur. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 58 p. (Populiarnye lektsii po matematike, no.20) (MLRA 9:8)
(Area measurement)

PANOV, Dmitriy Yur'yevich; RAZUMOVSKAYA, A.P., red.; AKHLAMOV, S.N., tekhn.red.

[Numerical solution of quasilinear hyperbolic systems of partial differential equations] Chislennoe reshenie kvazilineinykh giperbolicheskikh sistem differentsial'nykh uravnenii v chastnykh proizvodnykh. Moskva, Gos.izd-vo tekhn.teoret. lit-ry, 1957. 215 p. (MIRA 11:2)

(Differential equations, Partial)





1784. LUBRICATING OILS: FLUIDITY/TEMPERATURE RELATION: DETERMINATION BY THE " LOWING OFF" METHOD. Kussakov, M. and Razumovskaia, E. (Acta Physicochim, U.R.S.S., 1947, 22, 289-302). In characterising the fluidity or viscosity of liquids (e.g. lubricating oils) by the method of "blowing-off" at a constant temperature, it is expedient to blow off two oils simultaneously. In relative measurements this greatly facilitates the treatment of the experimental data (interference patterns). By blowing-off an oil with the temperature gradient perpendicular to the direction of blowing, it is found possible to obtain the fluidity/temperature relation for the oil as a result of a very short single experiment. On simultaneously blowing-off a standard oil and a test sample, it is possible to plot the fluidity/temperature curve for the latter. The preliminary experimental results obtained on blowing off some lubricating oils in a narrow plane-parallel slit with a transverse temperature gradient, are in fairly good agreement with the results of the ordinary capillary method. The accuracy of the method described may be raised by improved treatment

of the interference patterns obtained, in particular by using a photoelectric microphotometer.

T. I.

F

2352. CHARACTERISTICS OF FLUIDITY - TEMPERATURE RELATION FOR LIQUIDS BY BLOWING-OFF METHOD. Kusakov, M. and Razumovskaya, E. (Acta Physicochim., U.R.S.S., 1947, 22, 289-302; Chem. Abstr., 1947, 41, 7165). An app. is described which enables the fluidity-temperature curve of a lubricant to be obtained in a single short expt. The method is a variant of the blowing-off method suggested by K. and consists of photographing the interference patterns when 2 oils are simultaneously blown off a narrow plane-parallel slit with a temperature gradient perpendicualr to the direction of blowing. The expt is rapid enough (usually 2-3 min.) to obivate the need of using a thermostat. The temperature distribution is determined expertly by simul taneously blowing off 2 oils, one of which is a standard. With the distribution known, the fluidity of the oil under investigation can be calculated for any temperature. Spindle oil, whose dynamic viscosity was measured by an ordinary capillary viscometer, is used as a standard. Viscosity values for machine oil determined by this method and values determined by an ordinary capillary viscometer fall fairly close on a single curve. The method is still preliminary, but

Improved microphotometric treatment of the interference pattern photographs should result in rapid and accurate measurements.

C.A.

RAZUMOVSKAYA, E. A.

USSR/Chemistry - Lubricants

Card 1/1

Authors : Razumovskaya, E. A., and Kusakov, M. M.

Title : Two-dimensional characteristics method expressing the thermal dependence of the viscosity of lubricants by the method of thin layer blow-off

Periodical : Zhur. Fiz. Khim., 28, Ed. 5, 936 - 944, May 1954

Abstract : A method, based on the blow-off of a thin oil layer in a narrow plain-parallel slot and leading to the derivation of a curve expressing the thermal dependence of volatility (value of reverse viscosity), is described. The method is called two-dimensional because with one test it is possible to obtain not only one point but a continuous curve. The method is also applicable in obtaining curves which characterize the rheological properties of lubrication oils. The instrument (thermorheometer), used in combination with this new method, is described. Six USSR references. Graphs, drawings, illustrations.

Institution : Acad. of Sc. USSR, Petroleum Institute, Moscow

Submitted : Nov. 18, 1953

VINOGRADOV,G.V.; KUSAKOV,M.M.; ZASLAVSKIY,Yu.S.; RAZUMOVSKAYA,E.A.

Investigation on the interaction of lubricants and metals. Vest. AN SSSR 25 no.9:35-40 S '55. (MLRA 8:12)
(Lubrication and lubricants)

RAZUMOVSKAYA, E.A.

The mechanism of additive action by the use of labelled organic thiophosphites. G. V. Vinogradov, M. M. Kusakov, P. I. Sanin, Yu. S. Zaslavskii, E. A. Razumovskaya, A. V. Ol'yanova, and D. V. Ryabova. *Zhur. Prikl. Khim. i Tekhnol. Topliva* 1956, No. 6, 14-20.—The complex from the reaction of BuBr (0.6 mole) and $S^{35}C(NH_2)_2$ (0.76 mole) in 44 ml. 95% EtOH after treatment with 1% aq. NaOH yielded 28.51 g. 1-butanethiol (I) with the activity of S^{35} 2.43 × 10^{10} impulses/min. g. The S^{35}-labelled tributyltrithiophosphite (II) was prepd. in 54.5% yield from I (0.2 mole) and PCl_3 (0.068 mole) in 300 ml. dry pyridine. The activity of II was 4.03 × 10^6 impulses/min. g. The P^{32}-labelled tributylphosphite (III) (1.47 × 10^6 impulses/min. g.) was prepd. in an analogous way by using $P^{32}Cl_3$. These additives were dissolved in the naphthenic-paraffinic oil MC-20. Disks (15 mm. in diam. and 1.5 mm. thick) made of stainless steel 30 KhGSA and electrolytic Cu were attached to glass holders and submerged in 2.5 g. of a soln. of II and III, resp., for 2 hrs. The effect of time and temp. on the amt. of P^{32} and S^{35} deposited on the metal surfaces was measured by β-emission. Increasing the temp. increased the amt. of both elements on the steel, with a max. deposit contg. P^{32} 4 and S^{35} 0.02% of the total amt. in the soln. at 160°. Above this temp., the radioactivity of the disks sharply decreased. This confirmed the earlier observations (V. *et al.*, *Vestnik Akad. Nauk S.S.S.R.* 25, No. 9, 35(1955)) that interaction of the elements in the additives and metals is chem. in nature. When the disks were treated first with unlabelled tributylphosphite and then with II, there was a 2-fold decrease in the radioactivity, indicating that the formation of a protective phosphide coating hindered the formation of sulfide. The amt. of reacted isotopes as a function of time was measured at 20, 40, 60, 80, and 150°. After about 50 min. the rate of reaction of P^{32} with steel at 20° reached a const. value of 0.75 γ/sq. cm. Cu was found also to be an acceptor of P^{32} and S^{35} though much more reactive.

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PURPOSE: This book is intended for specialists in the field of machine and instrument manufacture who use radioactive isotopes in the study of materials and processes.

COVERAGE: This collection of papers covers a very wide field of the utilization of tracer methods in industrial research and control techniques. The topic of this volume is the use of radioisotopes in the machine- and instrument-manufacturing industry. The individual papers discuss the applications of radioisotope techniques in the study of metals and alloys, problems of friction and lubrication, metal cutting, engine performance, and defects in metals. Several papers are devoted to the use of radioisotopes in the automation of industrial processes, recording and measuring devices, quality control, flowmeters, level gauges, safety devices, radiation counters, etc. These papers represent contributions of various Soviet institutes and laboratories. They were published as Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science, April 4-12, 1957. No personalities are mentioned. References are given at the end of most of the papers.

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TITLE: The Interaction of Thioorganic and Thiophosphoroorganic Additions to Oils With Metals

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ABSTRACT: Anti-wear admixtures to oils containing sulfur-, phosphorus- and chlorine-compounds are widely applied. The functional limits of their action is investigated here by means of labeled atoms. They were dissolved in the non-polar fraction of bright stock and their interaction with chromium-manganese-silicon steel and electrolytic copper was studied. The interaction of steel with sulfur starts already at room temperature. The reaction of sulfur with copper is more intense. The reactivity of disulfide is higher than that of sulfide due to the higher mobility of the sulfur atoms in the disulfide molecule. The sulfur is bound to steel and copper irreversibly, i.e. chemically. Experiments with tributyltrithiophosphite labeled by P^{32} and S^{35} have shown that phosphorus reacts more intensively with steel than sulfur. At 20°C it is bound in the amount of 4.2 mg/cm^2. At 140°C and higher the decomposition of tributyltri-

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