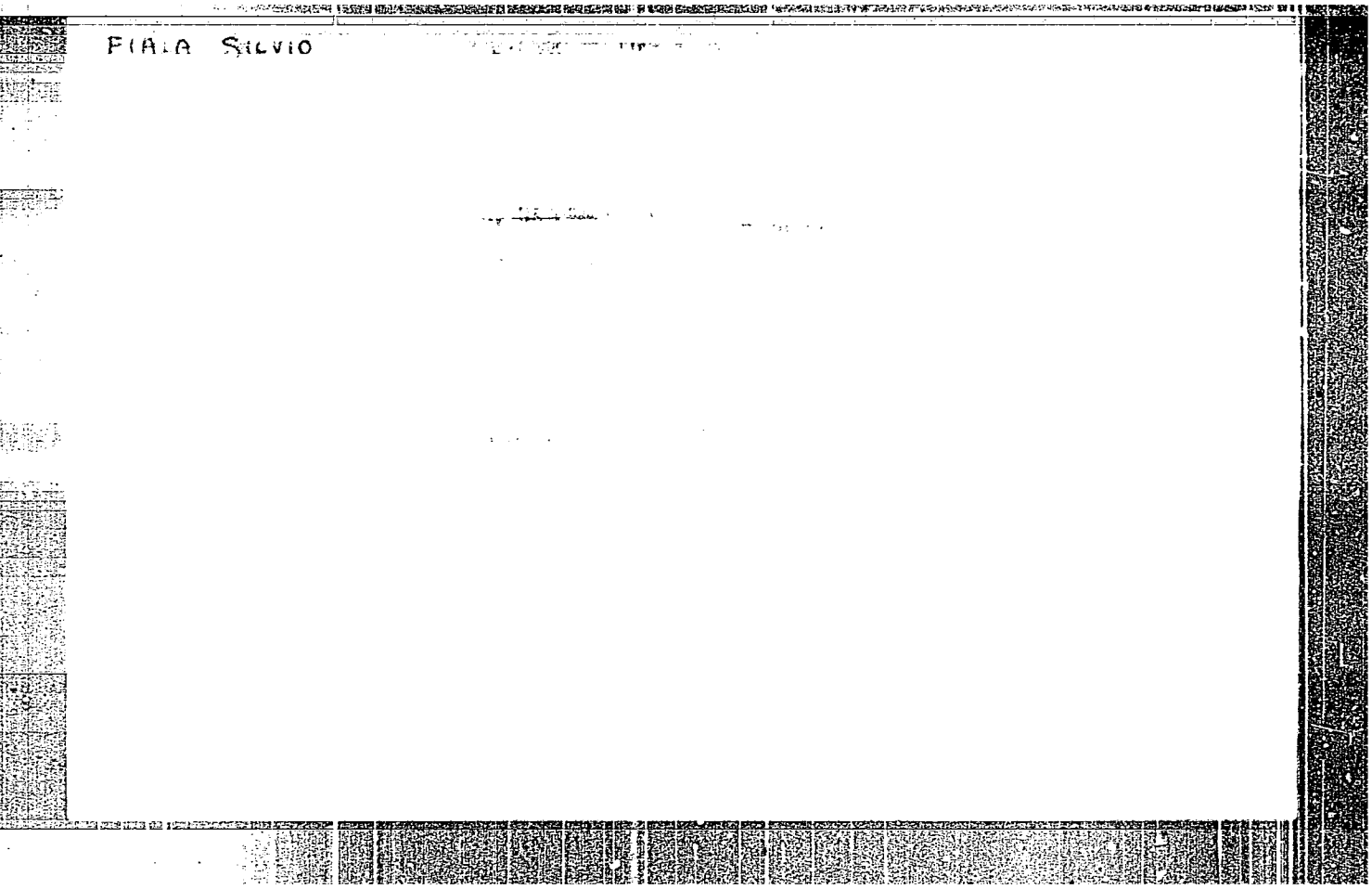


APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010008-4"

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Application--Safety and Sanitation H-6

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8744

Author : Fiala, S.

Inst : Not given

Title : Determining Benzine Vapor Concentration by Use of a Glowing Platinum Wire

Orig Pub: Chem. prumysl. 1958, 8, No 5, 240-242

Abstract: It was established experimentally that at a concentration of 250 to 400 (in mg per liter) in air, benzine vapors (I) are catalytically burned by a glowing platinum wire; at 100 to 250 and a minimum

Card 1/2

COUNTRY : CZECHOSLOVAKIA
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Instruments and Automation
ABS. JOUR. : RZKhim., No. 23 1959, No. 82573

AUTHOR : Fiala, S.
INST. : -
TITLE : Measurment and Control of Feed Water pH Values

ORIG. PUB. : Automatisace, 1958, No 10, 328-333

ABSTRACT : Description of a scheme and presentation of structural data of the pH measuring and controlling device used on boiler feed water.
-- Ye. Stefanovskiy

CARD: 1/1

FIALA, .

Determination of silver in water. p. 372.

VODNI HOSPOSARSTI. (Ministerstvo energetiky a vodniho hospodarstvi a Vedecka technicka spolecnost pro vodni hospodarstvi) Praha, Czechoslovakia. No. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11, November 1959.

Uncl.

FIALA, S.

FIALA, S. Possibilities of continuous measurements of some physical quantities in the food industry. p. 358. Vol. 7, no. 8, 1956. PRUMYSL POTRAVIN. Praha, Czechoslovakia.

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL 6 NO 4 APRIL 1957

HÁLA, S.; Kouba, J.

Electrochemical disinfection of water. p. 234.
(VCHT. Vol. 30, no. 9, Sept. 1957, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.
Uncl.

FIALA, Svatopluk

Determining free alkali in soap. Prum potravin 13 no.3:162-165 Mr '62.

1. Vyzkumny ustav Sdruzeni tukoveho prumyslu, Usti nad Labem.

FIALA, V.

A sand cover 5 cm. thick used on the experimental road between Stenery and Dolní Prim.

P. 17, (Silnice) Vol. 6, no. 7/8, July/Aug. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

FIALA, V.

TECHNOLOGY

periodicals: SDELOVACI TECHNIKA Vol. 6, no. 9, Sept. 1958

FIALA,V. Feedback in audio amplifiers. p. 323.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

Nesnidalova, R.; FIALA, V.

Family environment of children committed to children's homes by court orders. Cesk.psychiat. 56 no.2:95-99 Ap '60.

1. Psychiatricka klinika KU - pobucka Plzen.
(CHILD WELFARE)
(FAMILY)

ACC NR: AP7004575 SOURCE CODE: UR/0203/66/006/003/0597/0599

AUTHOR: Fiala, V.

ORG: Physics Institute im. P. N. Lebedev, AN SSSR (Fizicheskiy institut AN SSSR)

TITLE: Diffusion of nonhomogeneities in plasma in the presence of drift

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 597-599

TOPIC TAGS: inhomogeneous plasma, ionosphere, plasma diffusion

ABSTRACT: The problem of the motion and diffusion of nonhomogeneities is of considerable interest for the physics of nonhomogeneous plasma, especially for the ionosphere. The diffusion of nonhomogeneities in plasma has been investigated in a number of studies, while others have considered their motion (drift) in the magnetic field under the influence of an electrical field and other factors. The article cited below is of an integrating character in that the drift and diffusion are considered at the same time. The author thanks A. V. Gurevich for directing the completion of this work and Ye. Ye. Tsedilina for valuable discussions. Orig. art. has: 3 formulas. [JPRS: 38,937]

SUB CODE: 20,04 / SUBM DATE: 11Aug65 / ORIG REF: 003

Card 1/1

0926 1417

FIALA, Vladimir, inz.

Fibrit type resin impregnated materials. Papir a celulosa 20 no.3:85,87 Mr '65.

NESNIDALOVA, Ruzena; FIALA, Vaclav

On the problem of Kanner's autism in children. Cesk. psychiat. 57 no.2:76-84 '61.

1. Psychiatricka klinika lekarske fakulty KU v Pizni.
(BEHAVIOR MECHANISMS)

FIALA, Vaclav; FISAROVA, Marie

Social consequences of early cerebral palsy in children. Plzen. lek. sborn. 23:63-70 '64

1. Psychiatricka klinika lekarske fakulty University Karlovy se sidlem v Plzni (prednosta : prof. MUDr. E. Vencovsky, DrSc); neurologicka klinika lekarske fakulty University Karlovy se sidlem v Plzni (prednosta: doc. MUDr. E. Klimkova, CSc.).

NOVAK, I.; FIALA, Ya. [Fiala, J.]; SHUTKO, Sh. [Sutko, S.]; VLCHKOVA, M. [Vlckova, M.]; SHOUREK, I. [Sourek, J.]; SEYKOROVA, I. [Sejkorova, J.]

Some changes in the donor organism after bloodletting. Probl. gemat. i perel. krovi 8 no.4:41-46 Ap'63 (MIRA 17:2)

1. Iz Instituta gematologii i perelivaniya krovi (dir. - prof. Ya. Gorzheyshi [Horejsi, J.]), Praga.

FIALA, Z.

Fiala, Z. Did you prepare your machines well for operating the threshing equipment? p. 252. Helping our combine operators in the grain harvest. p. 253. MECHANISACE ZEMEDELSTVI. Praha. Vol. 5, no. 13, July 1955.

SO: Monthly List of the East European Accession, (EEAL), LC. Vol. 4, no. 10, Oct. 1955. Uncl.

FIALA, Z.

Remarks on Jiri Triska's book Elektrina na pomoc zemedelstvi (Electricity Helps Agriculture). p.280

MECHANISACE AEMEDELSTVI. (Ministerstvo zemedelstvi) Praha.

Vol. 5, no. 14, July 1955

East European Accessions List Vol. 5 No. 1 Jan. 1956

SNABL, Pavel, MUDr., (Kunz Liberec); FIALA, Zdenek, MUDr., (OUNZ Liberec); a matematickostatisticky zpracoval primar MUDr. F. POLAK, (OUNZ) Jablonec n. N.). Liberec, Wolkerova 15.

Intraarterial treatment of arterial diseases of the lower extremities. Vnitr. lek., Brno 1 no.5:377-385 May 55.

(LEG, blood supply
ischemic dis., ther. intraarterial.)

FIALA, Zdenek, inz.

Importance of the intensification of heat processing in the canning industry. Prum potravin 16 no.2:75-79 F '65.

1. Research Institute of Distillation and Canning Industry, Prague. Submitted October 23, 1964.

Country : CZECHOSLOVAKIA
Category: Human and Animal Physiology. Circulation. Blood Vessels

T

Abs Jour: RZhBiol., No 19, 1958, 88870

Author : Snabl, P.; Polak, F.; Fiala, Z.
Inst : -
Title : A Test of Secondary Blood Filling.

Orig Pub: Vnitrni lekarstvi, 1957, 3, No 11, 977-982

Abstract: No abstract.

Card : 1/1

SNABL, P.; MACHALEK, M.; FIALA, Zd.

Localization of obliterative vascular disease in the lower extremities. Cas. lek. cesk. 98 no.26:825-830 26 June 59.

1. Vnitrni oddeleni polikliniky MUNZ Liberec, prednosta MUDr. Pavel Snabl P.S., Liberec 15, Wolkerova 15. Do redakce doslo v zari 1958.

(VASCULAR DISEASES, PERIPHERAL, diag.
localization of obliterative dis. in lower extremities (Cz))

Fialevszky, L.

Fialevszky, L. Design of an anallagmatic telescope with inner focusing. p. 317. Vol. 13, no. 4, 1954, Budapest, Hungary KOZLEMENYEI

Polish commemoration of Academician Dr. Jozsef Jaky, Kossuth prize winner, professor at the Technical University. p. 397

Life of the Section of Technical Sciences; work of committees in various scientific fields, January-April, 1954. p. 401.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 3, March, 1956

FIALKA, J.

Standardization activities of the State Institute of Metallurgic Plant Design. p. 170.

NORMALISACE. Praha. Vol. 3, no. 8, Aug. 1954.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956.

S/275/63/000/003/004/021
A052/A126

AUTHOR: Fialka Jindrich

TITLE: Flexible electron tube grid made of metal braid

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 3, 1963, 20 - 21, abstract 3A111P. (Czech. pat., cl. 21g, 13/08, no. 101315, October 15, 1961)

TEXT: Several variants of making a flexible grid for cylindrical electron tubes from metal braid are proposed. According to the first variant the lower part of the grid made in the form of braid stocking is rigidly fixed on the tube socket when mounted on the chassis. The upper part of the grid is furnished with an annular metal flange with special (T-shape) cuts in its upper expanding part. When mounted in the seat of the socket the tube is inserted into the stocking from above and the whole grid is pulled up by the flange until it covers the tube. In this position the grid is fixed on the tube by means of a special-shape steel wire spring, the middle part of which holds the tube from above and the ends engage the cuts in the flange of the screen. According to another variant the stocking is put from

Card 1/3

Flexible electron tube grid ...

above on the tube already seated in the socket. The upper part of the stocking has a flange with a diamater considerably smaller than that of the tube owing to which the grid cannot slide down the tube. The lower part of the stocking has an annular flange with an internal diameter equal to the external diameter of the tube. On the external surface of this flange there are several symmetrically arranged protrusions. These protrusions (when the grid is put on the tube from above) engage the corresponding holes of flat springs, which are fixed in the tube socket in a vertical position at a distance of the radius of the tube bulb from the center of the socket. The number of springs and their arrangement in the socket correspond to number and arrangement of protrusions on the lower flange of the grid. Since according to the first variant the lower part of the grid and, according to the second variant, the vertical flat springs have a direct contact with the chassis, the grounding and at the same time partial heat transfer from tube to chassis are secured. The proposed screen, mounted tightly on the surface of the tube heated during the operation, secures a good heat transfer and consequently contributes to the longer service life of the

Card 2/3

tube and also adequately protects the tube bulb against mechanical damages.

B.Ya.

[Abstractor's note: Complete translation.]

FIALKA, Kamil, inz.

Artificial lighting of class rooms and its research. Elektrotechnik 17 no.9:257-260 S '62.

1. Tesla - Holesovice, Praha.

SOKOLOWSKI, Janusz; FIALKIEWICZ, Zofia; SMIATACZ, Zygfryd; WASIELEWSKI, Czeslaw

Configuration and conformation of N-glycosides. Pt. 1. Rocz chemii 37 no.5:515-523 '63.

1. Department of Organic Chemistry, Normal School, Gdansk.

PADALKO, N.V.; LAVROV, A.N., redaktor; FIALKINA, G.A., redaktor; MUKHINA, T.N., tekhnicheskiy redaktor

[Botany lessons in the learn-by-doing plot of the school] Uroki botaniki na shkol'nom uchebno-opytnom uchastke. Pod red. A.N. Lavrova. Moskva, Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1954. 95 p. (MLRA 7:8)

1. Chlen-korrespondent APN RSFSR (for Lavrov)
(Botany--Study and teaching) (School gardens)

FIALKINA, G.A.

SAMOYLOV, I.I., redaktor; FIALKINA, G.A.redaktor; MUKHINA, T.N., tekhnicheskiy redaktor.

[Problems of applied science in teaching geography] Voprosy politekhnicheskogo obucheniia v prepodavanii geografii; sbornik statei. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1954. 168 p. (Geography--Study and teaching) (MLRA 7:12)

KORINSKAYA, V.A., redaktor; FIALKINA, G.A., redaktor; GARNEK, V.P. tekhnicheskiy redaktor

[Geography teachers on their work] Uchitelia geografii o svoei rabote. Pod red. V.A.Korinskoi, Moskva, 1955. 127 p. (MLRA 8:11)

1. Akademiia pedagogicheskikh nauk RSFSR, Moscow, Institut metodov obucheniia.

(Geography--Study and teaching)

PASTUKH, Yelena Yakovlevna; STAVROVSKIY, Aleksandr, Yevgen'yevich; FIALKINA, G.A., redaktor; GARNNK, tekhnicheskiy redaktor.

[Topic plan for extracurricular work in biology in secondary schools] Tematika vneklassnoi raboty po biologii v srednei shkole. Moskva, Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1955. 135 p. (MLRA 9:5)
(Biology--Study and teaching)

LEVASHOV, V.I., prepodavatel' srednoy shkoly; DRIZOVSKAYA, T.M., redaktor; FIALKINA, G.A., redaktor; GARNEK, V.P., tekhnicheskiy redaktor

[Chemical laboratory club in the school] Kruzhok khimikov-laborantov v shkole. Pod red. T.M.Drizovskoi. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1956. 19 p. (MLRA 10:1)
(Chemistry--Study and teaching)

FILKINA, G.A.

YAKHONTOV, A.A., professor, redaktor; PROFERANSOVA, N.V., redaktor; FILKINA, G.A., redaktor; GOROKHOV, Yu. N., tekhnicheskiy redaktor

[Practical work in the school experimental garden plot; work practice] Prakticheskie zaniatiia na shkol'nom uchebno-opytnom uchastke; iz opyta raboty. Pod red. A.A. IAkhontova. Moskva, 1956. 78 p. (MLRA 10:4)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut metodov obucheniya. 2. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR. (for Yakhontov)
(School gardens)

ZUYEV, Vasiliy Fedorovich, akademik; RAYKOV, B.Ye., redaktor; FIALKINA, G.A., redaktor; SHAPOSHNIKOVA, A.A., redaktor; GARNEK, V.P., tekhnicheskiy redaktor

[Pedagogical works] Pedagogicheskie trudy. Red., vstup.stat'ia i kommentarii B.E.Raikova. Moskva, Izd-vo Akademii pedagog. nauk, 1956. 146 p. (MLRA 9:10)

1. Deystvitel'nyy chlen Akademii pedagogicheskikh nauk RSFSR (for Raykov)
(Nature study)

TROITSKIY, Aleksey Aleksandrovich; KAZAKOVA, O.V., red.; FIALKINA, G.A. red.; LAUT, V.G., tekhn.red.

[Studying the subject "the musculoskeletal system" (the human skeleton)] Izuchenie temy "Kostno-myshechnaia sistema" (skelet cheloveka). Pod red.O.V.Kazakovoi. Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1957. 23 p. (MIRA 11:1)
(MUSCULOSKELETAL SYSTEM)

Fialkina G.A.

GRODINSKIY, Grigoriy Pavlovich; KORSUNSKAYA, V.M., red.; FIALKINA, G.A., red.; TARASOVA, V.V., tekhn.red.

[Readings in biology outside class] Vneklassnoe chtenie po biologii. Pod red. V.M.Korsunskoi. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1957. 49 p. (MIRA 11:4)
(Biology--Study and teaching)

KORSUNSKAYA, V.M., red.; FIALKINA, G.A., red.; GARMEK, V.P., tekhn.red.;

[Developing the interest of students in nature and agriculture] Razvitie interesa uchashchikhsia k prirode i sel'skomu khoziaistvu; sbornik. Pod red. V.M.Korsunskoi. Moskva, 1957. 54 p. (MIRA 11:4)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut pedagogiki, Leningrad.
(Botany--Study and teaching)

ZVORYKIN, Boris Sergeyevich; FIALKINA, G.A., red.; KOPTEKOVA, L.A., red.; TARASOVA, V.V., tekhn.red.

[Practical manual for electrical work in secondary schools; practices of School No.315 in Moscow] Praktikum po elektrotekhnike v srednei shkole; iz opyta raboty shkoly No.315 Moskvy. Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1957. 126 p. (MIRA 10:12)
(Electric engineering)

FIALKINA, G. A.

GLAZYRIN, Aleksandr Ivanovich; KOZYR', Ivan Vasil'yevich; PARMENOV, Konstantin Yakovlevich; FIALKINA, G.A., redaktor; SOKOLOVA, E.Ya., tekhnicheskiy redaktor; LAUT, V.G., tekhnicheskiy redaktor

[Study room for natural sciences (physics, chemistry, and biology) in a seven-year school] Kabinet estestvoznaniia (fiziki, khimii, biologii) v semiletnei shkole. Pod obshchei red. K.IA. Parmenova. Izd. 2-oe, perer. Moskva, Izd-vo Akad.pedagog.nauk RSFSR. 1957. 312 p. (MLRA 10:10)

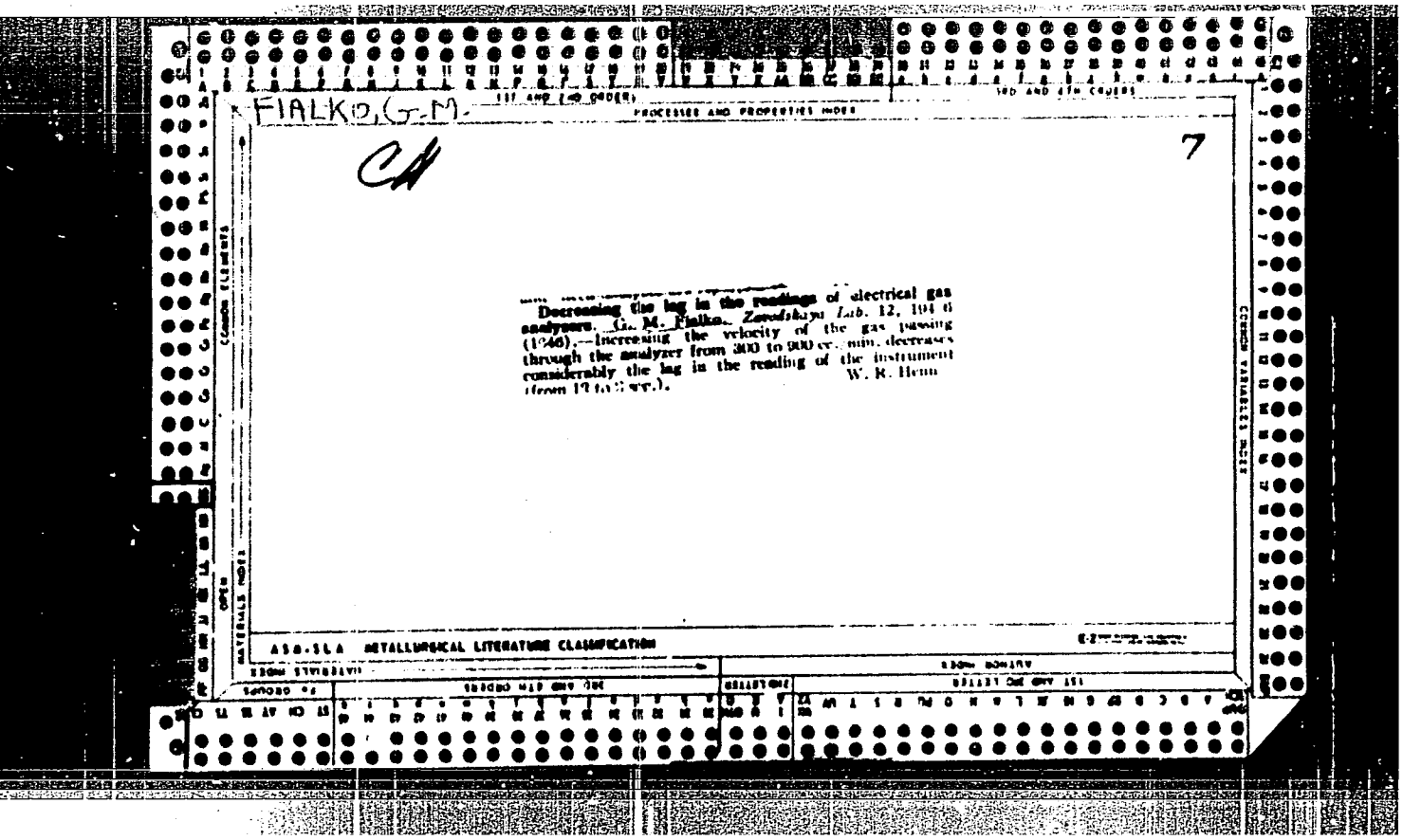
(Natural history--Study and teaching)

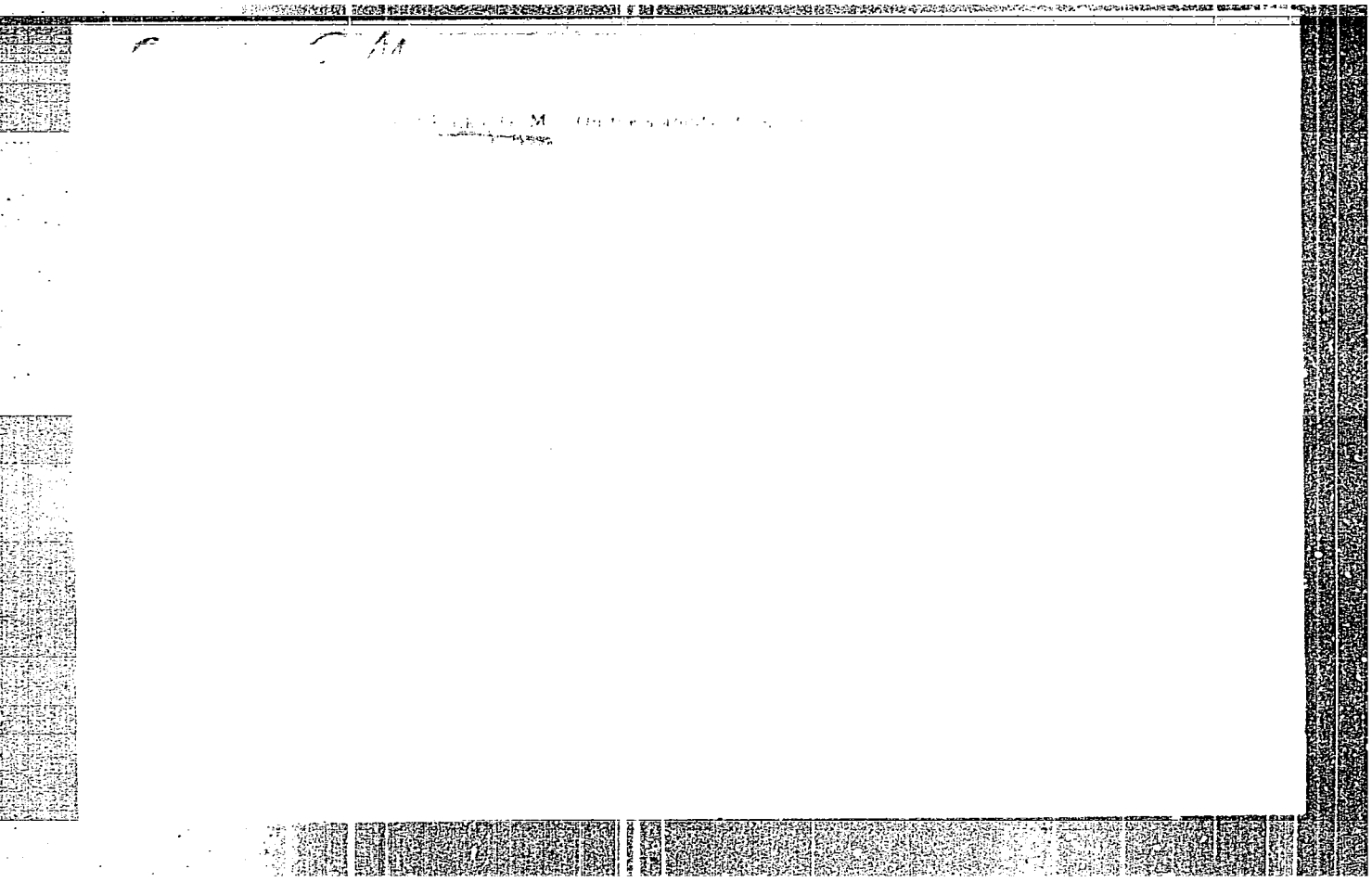
ROMANOVSKIY, Vladimir Nikolayevich, kand. tekhn. nauk; SHERENKOV, Viktor Nikolayevich; FIALKINA, G.A., red.; TARASOVA, V.V., tekhn. red.

[Secondary school production training of electricians; laboratory work]Proizvodstvennoe obuchenie elektrikov v srednei shkole; laboratorno-prakticheskie raboty. Moskva, Izd-vo APN RSFSR, 1962. 124 p. (MIRA 15:12)
(Electric engineering--Study and teaching)

SHCHUKIN, Sergey Vasil'yevich; FIALKINA, G.A., red.; NOVOSELOVA, V.V., tekhn. red.

[Fundamentals of student experimental work with forage plants and agricultural animals] Osnovy opytnicheskoi raboty shkol'nikov s kormovymi kul'turami i sel'skokhoziaistvennymi zhivotnymi. Moskva, Izd-vo APN RSFSR, 1963. 166 p. (MIRA 17:2)





APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010008-4"

FIALKO, G.M.

~~FLAKO, G.M.~~

"Dynamics of Regulating the Concentration of Suffer Gas at Sulfuric Acid Plants where an Electric Gas-Analyzes is included in the Circuit."

Sone of computation carried our at Ural Sxi. Res. Chem. Institute in 1944 /UNIKhIM/ of the Ministery of Chemical Industries /MKhP/ of w ch the aurhor is affiliated /Note in 1935 UNIKhIM/ was nudder Ural Osnov Khim of Glav Khim Prom NKTP/

Automat i Telemekh 1X, 6, 1948.

FIALKO, G. M.

Fialko, G. M. "The automatic regualtion of the concentration of sulfur gases at sulfuric-acid plants", (Report), Soobshch. o nauch. rabotakh chlenov Vsesoyuz. khim. o-va im. Mendeleyeva, 1949, Issue 1, p. 21-22.

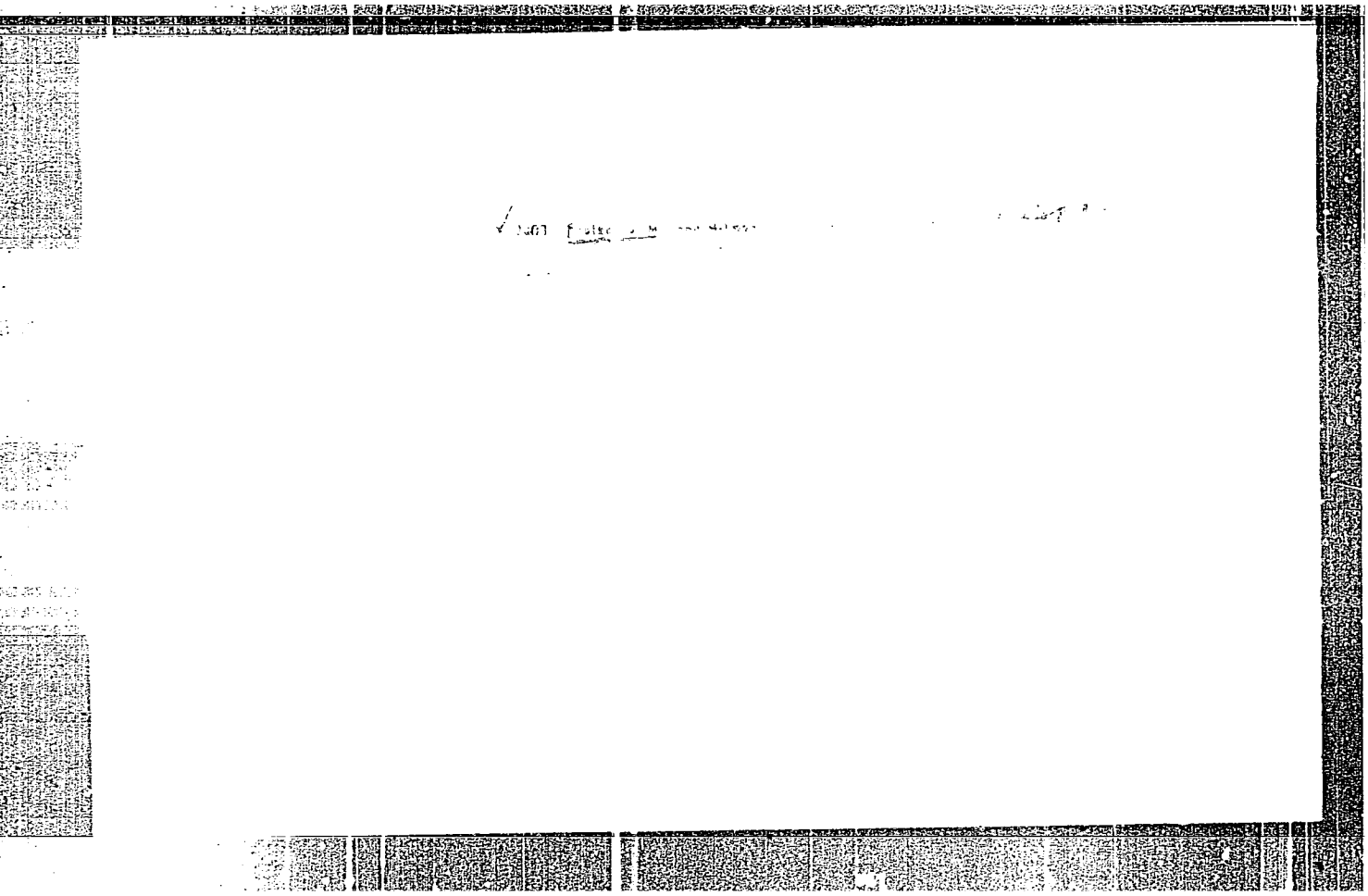
SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

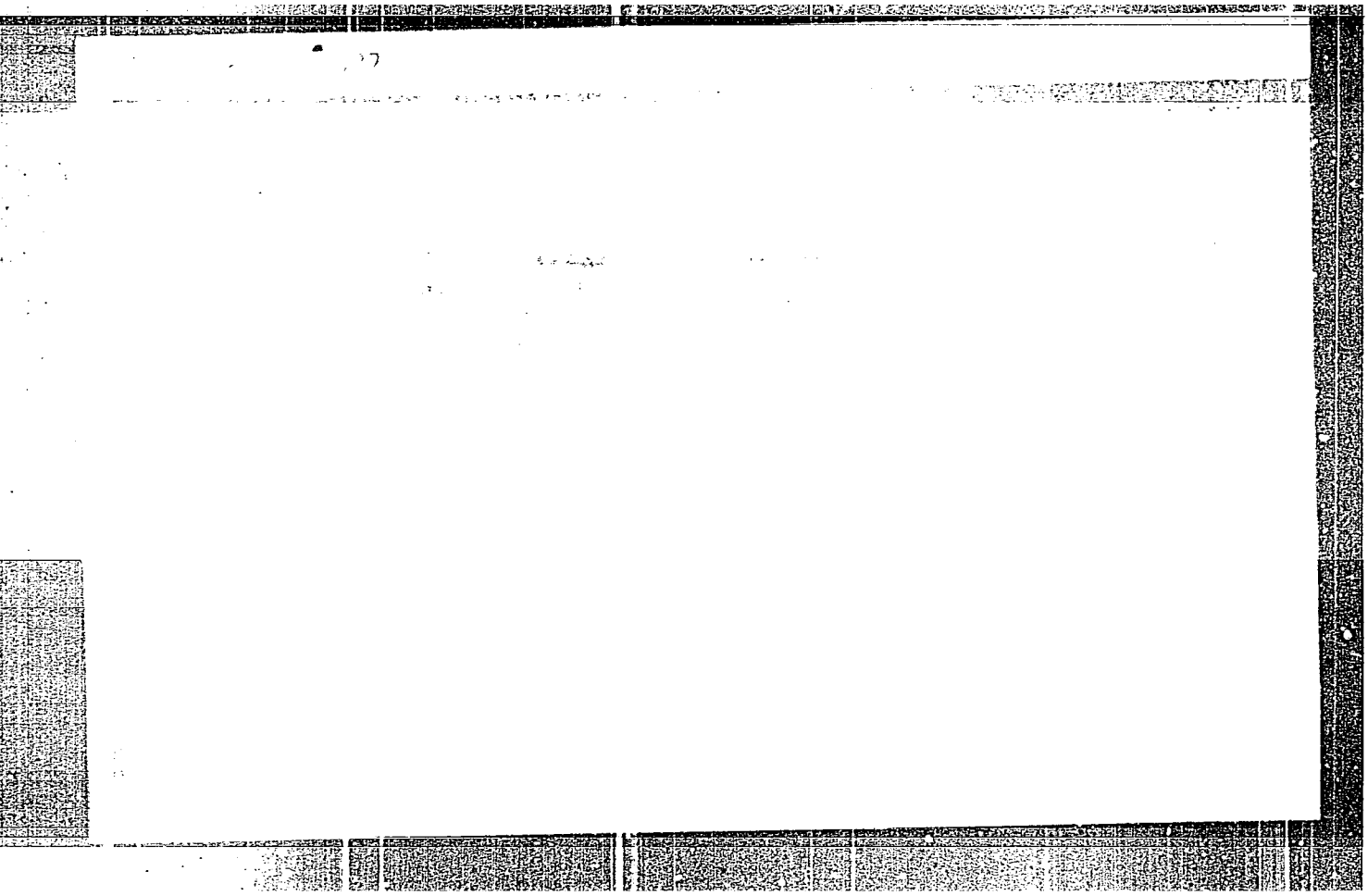
FIALKO, G. M.

G.M. Fialko and L.A. Kostromitin. A laboratory device to measure the concentration of sulfuric acid and oleum. P. 1268

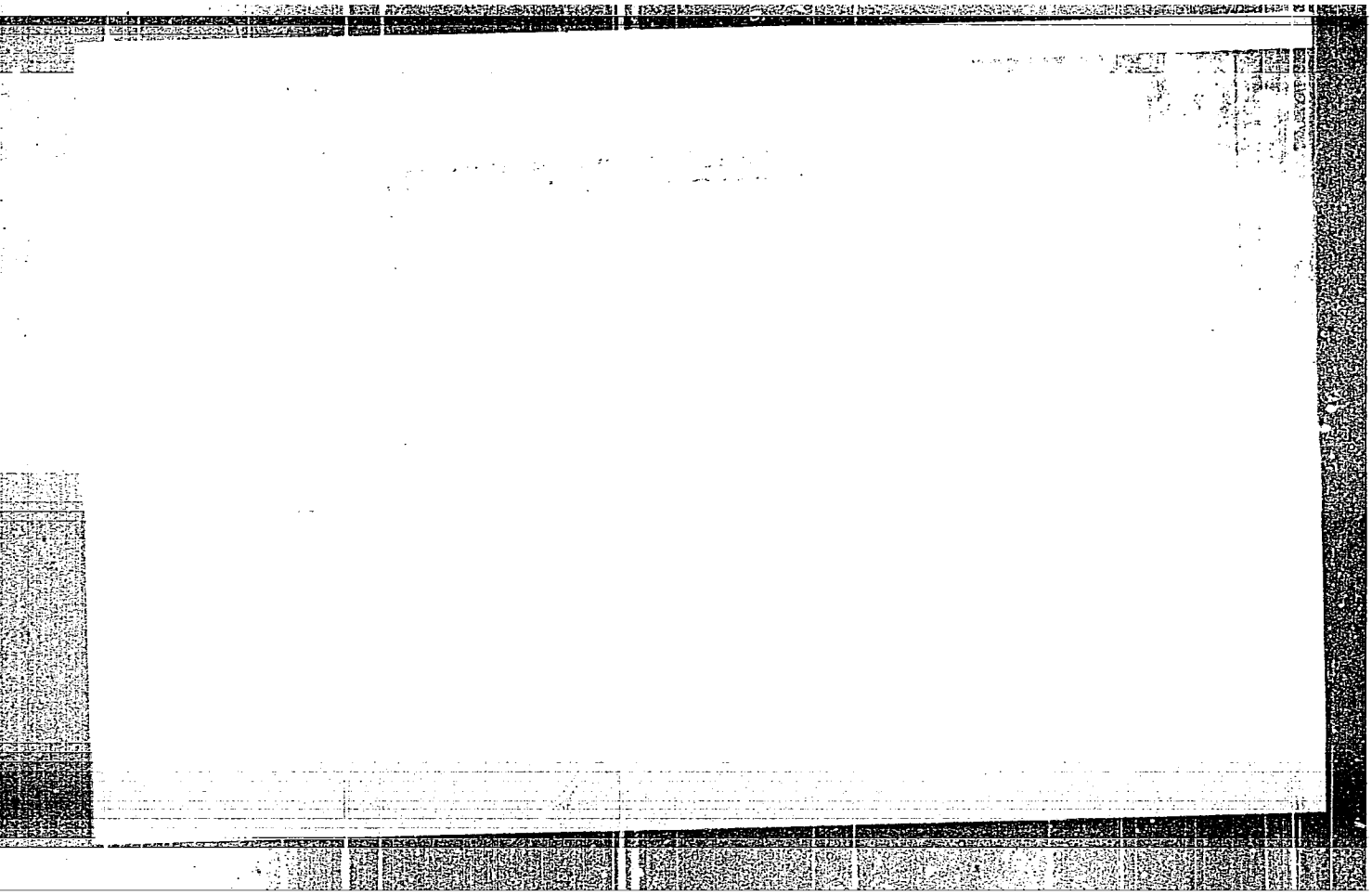
Ural Scient. Res.
Inst. of Chemistry

SO: Factory Laboratory, No. 10, 1950





APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010008-4"



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010008-4"

FIALKO, G.M.

USSR/Processes and Equipment for Chemical Industries - Control and Measuring Devices. Automatic Regulation. K-2

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 7003

Author : Apakhov, A.I., Baleyev, A.V., Perevezentsev, I.G., Fialko G.M.

Inst :

Title : Automatic Regulation of Preparation of Nitrogen Oxides for Absorption in the Production of Sulfuric Acid by the Tower Process.

Orig Pub : Khim. prom-st', 1955, No 8, 475-477

Abstract : It is pointed out that automatic regulation of preparation of nitrogen oxides for absorption can be effected on the basis of NO_2 content of the gas after the last absorption tower. The NO_2 content is controlled by a photoelectric gas analyzer of continuous operation. In so doing the NO_2 content in the gas is set at such a concentration that only minimum losses of N_2 oxides with

Card 1/2

AUTHOR: Fialko, G. M., Candidate of Technical Sciences SOV/64-58-4-12/20

TITLE: The Automatic Stabilization of the Concentration of Sulfur Dioxide in Pyrite-Dust Ovens (Avtomaticheskaya stabilizatsiya kontsentratsii sernistogo gaza v pechakh pylevidnogo obzhiga kolchedana)

PERIODICAL: Khimicheskaya promyshlennost', 1958, Nr 4, pp. 244-246 (USSR)

ABSTRACT: The variability of the concentration of sulfur dioxide in the production of sulfuric acid leads to an increase in the consumption of nitric acid or to a decrease of the intensity of contact and of absorption, respectively. The main cause for this change is the non-uniformity of the pyrite addition, this latter again being caused by the constant change in the humidity of the pyrite. It was observed that the heat of the waste gases in the burning of pyrite (with the same air supply) is a function of the amount of burned sulfur and thus of the concentration of sulfur dioxide. Based on this fact the UNIkhim collaborating

Card 1/3

The Automatic Stabilization of the Concentration of SOV/64-58-4-12/20
Sulfur Dioxide in Pyrite-Dust Ovens

with D. I. Mil'man, V. Z. Mel'nikov and V. M. Bronnikov, constructed a regulator which operates according to the principle that in the case of a drop of temperature of the waste gases the pyrite addition is automatically increased, and vice versa. A chromium-aluminum thermocouple is used as measuring element of the regulator; this thermocouple is located in the waste gas channel. A diagram of the arrangement is enclosed as well as the corresponding figures. The automatic regulator was adjusted to a normal temperature of the waste gases of 930° (corresponding to 12% SO_2), the zone of insensibility was $\pm 1^{\circ}$ at an isodrome of 2 minutes. The simple character of the apparatus, the safety of the regulator effect, as well as the possibility of a mass production are mentioned as recommendation for a wider use in industry. There are 6 figures, 2 tables, and 4 references which are Soviet.

ASSOCIATION: Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut (Ural Scientific Research Institute of Chemistry)

The Automatic Stabilization of the Concentration of Sulfur Dioxide in Pyrite-Dust Ovens SOV/64-58-4-12/20

1. Sulfur dioxide--Stabilization 2. Sulfuric acid--Production 3. Iron sulfides --Moisture factors

Card 3/3

SOV/81-59-16-57379

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 253 (USSR)

AUTHORS: Fialko, G.M., Bronnikov, V.M.

TITLE: A Concentration Meter for Sulfuric Acid and Oleum With an Equilibrium Bridge of KSO-3 Type

PERIODICAL: Tr. Ural'skogo n.-i. khim. in-ta, 1958, Nr 7, pp 261-265

ABSTRACT: The concentration meter consists of 3 parts: the transducer - being a cast iron (for acid) or iron (for oleum) flow-through case with a socket inserted in it, the lower side of which is open, and in the bottom of which 2 platinized (measuring) electrodes and a sealed comparison cell are fastened; the a-c electron bridge (EMD-12 or EMD-232) in which the input bridge circuit is modified; and the duplicating indicating millivoltmeter. The total error of the concentration meter on the margins of the scale does not exceed: for drying acid ± 0.3% H_2SO_4; monohydrate ± 0.2% H_2SO_4; oleum ± 0.6% SO_3 free.

N. Surkov.

Card 1/1

S/112/59/000/016/033/054
A052/A002

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 16, p. 167, # 34696

AUTHOR: Fialko, G. M.

TITLE: Automatic Control of the Oxidation Space in Sulfuric Acid Tower Systems by the Ratio of Nitric Oxides at the Exhaust

PERIODICAL: Tr. Ural'skogo n.-i. khim. in-ta, 1958, No. 7, pp. 279-289

TEXT: Calculations and a description of a regulator of the ratio of nitric oxides are given. The regulator was tested at a superphosphate plant in 1955. The regulator consists of a photocolorimetric АФК-2 (AFK-2) nitric oxide pickup, a measuring device, an electronic control millivoltmeter, an electrothermal isodrome and a servomechanism. The latter rotates the baffle plates of the oxidation space and of the tower, changing thus the amount of gas passing through the oxidation space of the system. A considerable acceleration of the nitric oxide oxidation in the pickup of the regulator is achieved by an addition of oxygen to the exhaust gas entering the pickup. There are 8 illustrations and 6 refsrences.

N. M. F.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

S/103/60/021/006/024/027/XX
B019/B063

AUTHOR: Fialko, G. M. (Sverdlovsk)

TITLE: Use of Electrothermal Isodromic Systems for the Coupled Control of Manufacturing Processes

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 6, pp. 812-820

TEXT: The present paper deals with methods of autonomous isodromic control of complicated technological processes with electrothermal devices which require no complication of the measuring instruments of the controller. The design of the circuits of the electrothermal devices is similar to that of electrothermal isodromic systems. Fig. 1 shows the block diagram of a control system for the control of three parameters of an object. 1) denotes the control object, 2) the measuring instruments, 3) the amplifiers, 4) the isodromes, 5) the final control elements, and 6) the cross-coupling devices. The cross-coupling elements are calculated by matrix calculus. An experimental verification of the mode of cross-coupling suggested by the author with the help of a simulator indicated

Card 1/3

Use of Electrothermal Isodromic Systems for the Coupled Control of Manufacturing Processes

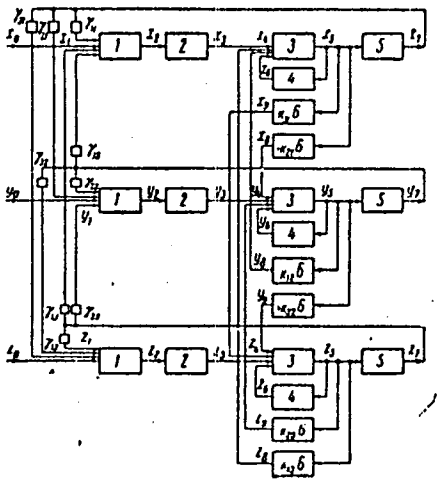
S/103/60/021/006/024/027/XX
B019/B063

that the accuracy of dynamic control can be improved. Particular advantages of the control systems described here are the simple design of an automatic and coupled control, the simple design of the measuring instruments of the controller, adjustment of large time constants, and the simple design of the system and its reliability in operation. VTI (All-Union Heat Engineering Institute) is mentioned. There are 2 figures, 2 tables, and 7 Soviet references.

Card 2/3

Use of Electrothermal Isodromic Systems for the Coupled Control of Manufacturing Processes

S/103/60/021/006/024/027/XX
B019/B063



Card 3/3

FIALKO, Grigoriy Mironovich; SUKHANOV, Ye.L., kand. tekhn. nauk, retsenzent; DUGINA, N.A., tekhn. red.

[Automation of equipment for the manufacture of sulfuric acid] Avtomatizatsiia oborudovaniia dlia proizvodstva sernoi kisloty. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 294 p. (MIRA 14:10)

(Sulfuric acid) (Automation)

FIALKO, G.M.; YEMEL'YANOV, A.I., inzh., retsenzent; FRID, L.I., inzh., red.

[Automation of the production of sulfuric acid] Avtomatizatsiia proizvodstva sernoi kisloty. Izd.2., perer. i dop. Moskva, Mashinostroenie, 1964. 407 p. (MIRA 17:9)

FIALKO, M.M.; DINTSES, A.I.

Study of inorganic salts with the purpose of using them as high-temperature lubricants. Khim. i tekh. topl. i masel 8 no.10:22-26 O '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

L 37719-65 EPF(c)/EPF(n)-2/EPA(s)-2/EWT(m)/EWS(f)/EPA(bb)-2/EWP(b)/EWA(d)/EWP(t)
Pr-4/Pt-10/Pu-4 IJP(c) WW/DJ/MAT/JD/JG

ACCESSION NR: AP4017574 S/0065/64/000/003/0054/0058

AUTHOR: Fialko, M. M.; Dintses, A. I.

TITLE: Molten metals as high temperature lubricating materials

SOURCE: Khimiya i tekhnol. topliv i masel, no. 3, 1964, 54-58

TOPIC TAGS: structural steel, structural alloy, nickel alloy, lubricant, high temperature lubricant, molten metal, thallium, lead, bismuth, cadmium, tin, zinc, corrosiveness, oxidation, stainless steel, corrosion, ceramic/ EI 347 stainless steel, R9K10 stainless steel, TsKB-1082R nickel alloy, NMZhMts-28-2.5-1.5 nickel alloy, Inconel, Monel metal

ABSTRACT: The feasibility of using molten metals as lubricants was studied by investigating the oxidation of Bi, Cd, Sn, Pb, Zn, and eutectic mixtures Bi-Cd-Pb and Bi-Pb-Sn and their corrosiveness toward structural alloys -- stainless steels EI347 and R9K10 and nickel alloys TsKB-1082R (Inconel type) and NMZhMts-28-2.5-1.5 (Monel metal type). All the molten metals oxidize at 500C; hence inert atmosphere or high vacuum operations are required. The data obtained are in agreement with the literature: nearly all liquid metals react with the basic components of the

Card 1/2

L 37719-65

ACCESSION NR: AP4017574

structural alloys, forming intermetallic surfaces. Only Pb and Bi, both toxic and oxidized, could be used. Therefore, for [illegible] operations, inorganic [illegible] are suggested. If the structural alloys were replaced by corrosion [illegible] preferable to the [illegible]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NR REF SOV: 006 OTHER: 000

ACC NR: AP7002728 (A,N) SOURCE CODE: UR/0065/67/000/001/0045/0048

AUTHOR: Fialko, M. M.; Nikonorov, Ye. M.

ORG: VNII NP

TITLE: Effect of additives on thermal-oxidative stability of dibutylphenyl-phosphate

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 1, 1967, 45-48

TOPIC TAGS: antioxidant additive, corrosion inhibitor, ~~corrosion~~, amine, alkylphenol, hydraulic fluid, dibutylphenyl phosphate, phenyl compound, phosphate, thermal oxidation, aircraft engine

ABSTRACT: The effect of certain antioxidant and other additives on the thermal-oxidative stability and corrosiveness of dibutyl phenyl phosphate had been investigated with regard to the latter's use as a base for fireproof aircraft hydraulic fluid. The sample investigated contained about 15% tributylphosphate; the acid number of the liquid was 0.1. Aromatic amines and alkylphenoles were used as oxidation inhibitors. The former reduced the acidity of dibutylphenyl phosphate four to five times. In the presence of copper, however, the inhibitive properties of these antioxidants were completely reversed and the corrosiveness

Card 1/2 UDC: 665.521.5:546.185

ACC NR: AP7002728

of dibutylphenyl phosphate increased. Xanthogenates without disulfide groups on the other hand were shown to reduce corrosiveness. This effect is explained by the formation of a protective sulfide film on the copper surface. In turn, this film precludes the use of xanthogenates in hydraulic systems of aircraft. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 11/SUBM DATE: none/ORIG REF: 001/OTH REF: 007/ [KP]

Card 2/2

FIALKO, V.A. (Sverdlovsk)

Continuity in the work of a first aid station and district physicians. Zdrav. Ros.Feder. 7 no.8: 35-39 Ag'63. (MIRA 16:10)

(SVERDLOVSK — FIRST AID IN ILLNESS AND INJURY)

KUSHELEVSKIY, B.P., prof.; KHEYNONEN, I.M., kand. med. nauk; FIALKO, V.A.

Study on the effectiveness of the use of fibrinolysin in myocardial infarcts. Sov. med. 28 no.5:55-58 My '65. (MIRA 18:5)

1. Kafedra fakul'tetskoy terapii Sverdlovskogo meditsinskogo instituta i Sverdlovskaya gorodskaya stantsiya skoroy pomoshchi (glavnyy vrach V.F.Kapinos, nauchnyy rukovoditel' spetsializirovannoy kardiologicheskoy sluzhby - prof. B.P.Kushelevskiy).

ANISHCHENKO, I.A., fel'dsher (Shakhty Rostovskoy oblasti); FIALKO, V.Ye., fel'dsher (Vulkaneshty Moldavskoy SSR); STARIKOV, L.M., fel'dsher; SUSLOVA, V.A., akusherka (poselok Stakhanovskiy Kirovskoy oblasti)

Improved method for preserving chlorethyl remnants in bottles used for penicillin, streptomycin, and insulin. Fel'd. i akush. 25 no.3:49-50 Mr '60. (MIRA 13:6)

(ETHYL CHLORIDE)

ROGOVSKAYA, N.V.; FIALKO, Ye.G.

Hydrogeological basis for land improvement work in the Kura-Aras Lowland. Sov. geol. 7 no.11:121-123 N '64. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii.

FIALKO, Ye.I.

112-1-1844

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 1, p. 275 (USSR)

AUTHOR: Fialko, Ye.I.

TITLE: Problem of the Amplitude and Frequency Response Characteristic of a Resonance Amplifier (K voprosu ob amplitudno-chastotnoy kharakteristike rezonansnogo usilitelya)

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1956, 82, pp. 134-145

ABSTRACT: In order to explain the influence of asymmetry of the circuit resonance characteristic on the properties of a multistage amplifier, the following problems were investigated: 1) resonance characteristic of the oscillatory circuit for a one-and a multistage amplifier; 2) dependence of the degree of asymmetry of the amplifier pass-band from the number of stages; 3) limiting shape of the amplitude-and-frequency response characteristic of a multistage amplifier with a large number of stages. An experimental amplitude-and-frequency response characteristic was taken down from a wideband cascade of a resonance

Card 1/2

PIALKO, Ye. I.

Radar observations of meteors on a 10m.. wavelength. Astron. tsirk. no.5:21-24 D '57. (MLRA 10:5)

1. Tomskiy politekhnicheskiy institut im. S. M. Kirova.
(Radio astronomy) (Meteors)

AUTHOR: Fialko, Ye. I.

TITLE: The distribution of meteor radio echoes according to their duration. (K voprosu o raspredelenii meteornykh radioekho po dlitel'nosti).

PERIODICAL: "Astronomicheskiy Zhurnal", (Journal of Astronomy), 1957, Vol.34, No.2, pp.241-6 (USSR).

ABSTRACT: Following the work of Kaiser (1, 2) and Greenhow (3), it is shown that in the first approximation

$$N = N_{\Sigma}\frac{\tau_{min}}{\tau}$$

where N is the number of meteors giving reflections of duration $\tau \geqslant \tau_{min}$, and N_{Σ} the total number of observed meteor echoes. In deriving this expression it was assumed that τ is proportional to the mass of the meteoric body (before vaporisation) and the differential law of distribution of meteoric bodies according to mass is given by

$$P_m(m) = bm^{-S}$$

where b and S are constants.
Table I gives the meteor reflections with $\tau \geqslant 0.5$ sec. as observed by the author. Column headings in this table are as follows:- Plate number, Number of meteors,

AUTHOR: Fialko, Ye.I. 33-3-13/32

TITLE: The distribution of meteoric bodies according to mass. (K voprosu ob issuchenii raspredeleniya meteornykh tel po masse)

PERIODICAL: "Astronomicheskiy Zhurnal" (Journal of Astronomy), 1957, Vol. 34, No.3, pp. 419-423 (U.S.S.R.)

ABSTRACT: A simple method is discussed for a more precise determination of the law of distribution of meteoric bodies according to their mass, based on radio-echo observations on meteorites.

As is known, the distribution of meteors according to mass is given by the approximate law:

$$f_m(m) = \frac{b}{m^S},$$

where m is the mass of a meteor and b and S are constants.

Kaiser (2) has shown that, approximately:

$$\frac{N_1}{N_2} = \left[\frac{P_1 \lambda_1^3}{\varepsilon_1} \frac{\varepsilon_2}{P_2 \lambda_2^3}\right]^{(S-1)/2}$$

Card 1/6

The distribution of meteoric bodies according to mass. (Cont.)

where N is the mean number of meteors recorded by the radio-locator per hour, P the peak power radiated by the transmitter, λ the wavelength, ε the threshold power. Indices 1 and 2 refer to the two radio-location stations. If only one radio-locator is available (with two receivers having different sensitivities):

$$\frac{N_1}{N_2} = \left[\frac{\varepsilon_2}{\varepsilon_1}\right]^{(S-1)/2}$$

and hence:

$$S = 1 + 2\,\frac{\lg \frac{N_1}{N_2}}{\lg \frac{\varepsilon_2}{\varepsilon_1}} \cdot$$

In formulae (2) to (4) N_1 (and correspondingly N_2) is the number of meteors which can give reflections exceeding the threshold signal.

Card 2/6

The distribution of meteoric bodies according to mass. (Cont.)

K. Bullough has shown that:

$$N' = \zeta N$$

where N is the mean number of meteorites (per hour) which can give an amplitude echo, N' - the number of meteorites actually discovered per hour, and ζ and P are given by:

$$\zeta = P^{1-S} + \frac{1}{\ln P(s-1)} \left[1 - P^{1-S} \left\{1 + (S - 1) \ln P\right\}\right];$$

$$P = e^{T_i/T_s},$$

$$T_s = \frac{\lambda^2}{16\pi^2 D}$$

where T_i is the length of transmitted impulses, T_s is the duration of reflection and D is the coefficient of diffusion at a height at which the reflecting part of the meteor is situated.

Card 3/6

In the first approximation ζ does not depend on the

The distribution of meteoric bodies according to mass. (Cont.)

magnitude of the threshold signal, i.e:

$$\frac{N_1}{N_2} \approx \frac{N'_1}{N'_2}$$

and

$$S \approx 1 + 2\,\frac{\lg \frac{N'_1}{N'_2}}{\lg \frac{\varepsilon_2}{\varepsilon_1}}$$

In order to establish the law of distribution of masses of meteoric bodies it is necessary to establish in which region of masses does the above equation for S apply. It is shown that the minimum mass is given by:

Card 4/6

$$m_{min} = \left[\frac{\varepsilon}{P_i G^2 \lambda^3}\,\frac{1}{\beta^2_{max}}\,\frac{1}{\eta^2_{max}}\left(\frac{R^3 H^2}{S^4(\theta)\cos^2\chi}\right)_{min}\frac{16\pi^2\mu^2}{r^2}\right]^{1/2}$$

$$H = H\,(h),$$

The distribution of meteoric bodies according to mass. (Cont.) 33-3-13/32

where h is the height of the normally reflecting part of the meteoric trace. The coefficient β which characterises the probability of ionisation, depends on the velocity of meteors:

$$\beta \sim v^n$$

n is not yet accurately known. Thus the minimum mass of observable meteors is determined from the locator parameters [λ, ε, P_i, G, S, (θ)] and meteor parameters (v, μ).

Thus, in the case of small masses, it is necessary to use a comparatively large λ, a very directional antenna, and a high power transmitter.

There are 1 figure and 9 references, 1 of which is Slavic.

ASSOCIATION: Tomsk Polytechnical Institute imeni S.M. Kirova (Tomskiy Politekhnicheskiy Institut imeni S.M. Kirova)

SUBMITTED: December 1, 1956

AVAILABLE: Library of Congress

Card 6/6

FIALKO, Ye.I.

Results of radar observations of the Perseid meteor shower in 1956. Astron.tsir. no.185:22-23 O '57. (MIRA 11:4)

1.Tomskiy politekhnicheskiy institut im. S.M. Kirova.
(Meteors--August) (Radio astronomy)

SOV/58-59-8-18734

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 244 (USSR)

AUTHORS: Fialko, Ye.I., Peregudov, F.I., Nemirova, E.K.

TITLE: Preliminary Results of Radar Observations of Meteors at λ-10 Meters

PERIODICAL: Byul. Komis. po kometam i meteoram Astron. Soveta AN SSSR, 1958, Nr 2, pp 39-43

ABSTRACT: The article describes the results of radar observations of meteors, carried out in September 1956 with the aid of a meteor radiolocator of the "TPI-1" type. The apparatus had the following parameters: wave-length 10 m; pulse power of the transmitter $\sim$ 100 kw; pulse duration 5 μ sec; frequency of pulse repetition 300 and 600 pps; sensitivity of the receiver $\sim 10^{-13}$ — 10^{-14}w; transmitting and receiving antennas were horizontal half-wave oscillators, situated at a height of $\lambda/3$ above the ground. The article provides graphs of the daily measurement of meteoric activity, of distributions according to distance and duration and of the relation between the hourly number of meteors and the power of the transmitter.

V.A. Naslednik

Card 1/1

3(1)

AUTHOR: Fialko, Ye.I. SOV/33-35-6-7/18

TITLE: The Mean Characteristic Height of Meteors Detected by Radio Observations

PERIODICAL: Astronomicheskiy zhurnal,1958,Vol 35,Nr 6,pp 881 - 887 (USSR)

ABSTRACT: The mean characteristic height of detected meteors depends on the parameters of the radio-echo apparatus; the dependence is slight, e.g. : An increase of the sensitivity of the apparatus which enlarges the number of the fixable meteors by 1-2 orders, alters the mean characteristic height by 5 - 10 km only. A variation of the "sounding height" of the atmosphere is mainly attained by observations of meteors of different velocity. In order to detect higher atmospheric layers, one has to apply quick meteors, an efficient transmitter and highly sensitive receiver. For lower layers of the meteor zone weak apparata and slow meteors are sufficient. The author thanks Professor V.V. Fedynskiy and B.Yu. Levin for revising the manuscript.

Card 1/2 Tomsk Politech Inst. im S. M. Kirov

FIALKO, Ye.I.

Calculation of screen brightness of an electron-beam tube with circular scanning. Izv.TPI 86:3-7 '58. (MIRA 13:5)
(Television--Picture tubes)

FIALKO, Ye.I.

Optimum band-pass of a pulse receiver. Izv.TPI 86:8-16 '58. (MIRA 13:5)
(Radio)

S/112/60/000/05/20/023

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1960, No. 5, pp. 422-423, # 6.3507

AUTHOR: Fialko, Ye. I. [redacted]

TITLE: The Problem of Investigating Meteors by the Radar Method

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1958, Vol. 86, pp. 17-21

TEXT: The author discusses the Kayzer method of determining the S coefficient, characterizing the mass distribution of meteors. The method is based on the comparison of the hourly meteor numbers, obtained with two radar installations with different transmitter capacities and somewhat different wave lengths. Kayzer found that $S \approx 2$ for sporadic meteors, and $S \approx 17$ for the Quadrantid stream. The author suggests a determination of the S-coefficient with the aid of one radar unit and two receivers (of different real sensitivity) or one receiver with an adjustable threshold signal. In order to determine S in the range of small masses, it is necessary to operate with comparatively great , using a pencil-beam antenna. It is desirable to use a transmitter with a high radiation power. Two methods of receiving signals reflected by meteors are

Card 1/2

S/112/60/000/05/20/023

The Problem of Investigating Meteors by the Radar Method

analyzed: a) multi-channel reception (several receivers with different threshold signals are used) and b) single-channel reception (one receiver with periodic variation of the threshold signal is used). It is preferable to use the modified single-channel reception with periodic commutation of the noise generator.

T. S. R.

/B

Card 2/2

68358

SOV/35-59-11-9060

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 11, p 48 (USSR)

AUTHOR: Fialko, Ye.I.

TITLE: The Dependence of the Average Hourly Number of Detected Meteors on the Wavelength of the Radio-Location Station

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1958, Vol 86, pp 22 - 26

ABSTRACT: The question is examined of the dependence of the average hourly number of meteors on the wavelength of the radio-location station. It is established that 1) In the case of the unvarying power of the threshold signal, the average hourly number of detected meteors is proportional to $\lambda^{3(S-1)/2}$ where S is the constant which characterizes the law of distribution of meteor masses. 2) In calculating the dependence of the threshold signal on the wavelength, the average hourly number of the potentially detected meteors is proportional to $\frac{\lambda (3-\alpha) (S-1)}{2}$

Card 1/2 where α is a certain constant ($2 < \alpha < 3$). 3) The average hourly number

64368

SOV/33-39-11-9060

The Dependence of the Average Hourly Number of Detected Meteors on the Wavelength of the Radio-Location Station

of detected meteors depends on the ratio of the duration of existence of the trace to the period of sending the signals, and at a very low frequency of pulse repetition for sporadic meteors the relation $N \sim \lambda^{2,1}$ is valid. Bibl. 3 titles.

V.A. Bronshtenk

Card 2/2

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, No 11, p 42 (USSR)

AUTHOR: Pisiko, Ye.I.

TITLE: On the Influence of Certain Parameters of the Radio-Locator on the Average Hourly Number of Detected Meteors

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1958, Vol 86, pp 27 - 40

ABSTRACT: It is shown that the hourly numbers of detected meteors depend on the shape of the envelope of the emitted pulse and the form of the resonance characteristics of the receiver. A simple method is given for comparing different types of resonant characteristics of receiving devices and forms of envelopes of the generated pulses, from the point of view of the number of detected meteors. It is shown that the variety of the pulsed shape and resonance characteristics have practically no effect on the number of meteors being detected. In the case of an optimum relation between the duration of the pulse and the pass band, a better result is obtained from the system with the bell-shaped pulses and the rectangular characteristic of the receiver.

Card 1/2

On the Influence of Certain Parameters of the Radio-Meteor on the Average Hourly Number of Detected Meteors

It is deduced, that in the case when special requirements are not set forth for the meteor radio-locator (the exact determination of coordinates and orbits of the meteors, etc.), it is possible to use the system with the narrowest emitted spectrum, that is, with 9 kilos.

Card 2/2

SOV/35-59-8-6350

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 8, p 36

AUTHORS: Fialko, Ye.I., Isamutdinov, Sh.

TITLE: On Comprehensive Radar Observations of Meteors

PERIODICAL: Astron. tsirkulyar, 1958, July 3, Nr 193, pp 28 - 29

ABSTRACT: On August 12, 1957, 10^h to 13^h of local time, an increase in the number, almost twice, of radar reflections from the meteoric trails in comparison with the sporadic background was recorded in Tomsk at a wavelength of 10 m. Almost simultaneously, an increase of the average hourly number was recorded in Stalinabad at a wavelength of 4 m. Analyzing the possible explanations of this phenomenon, the authors draw the conclusion that it was caused by the passage through the lobes of the

Card 1/2

On Comprehensive Radar Observations of Meteors SOV/35-59-8-6350

antenna of a meteoric stream with the radiant at $\alpha = 188^{\circ}$ and $\delta = 60^{\circ}$. The law of mass distribution of meteoric bodies in the given stream is characterized by the coefficient $S \approx 1.6$. However, this stream was not identified.

G.A.M.

Card 2/2

81462

SOV/35-59-8-6351

B. 1420

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 8, p 36

AUTHOR: Fialko, Ye.I.

TITLE: Some Results of Investigation of Meteor Body Mass Distribution

PERIODICAL: Astron. tsirkulyar, 1958, September 18, Nr 195, pp 22 - 23

ABSTRACT: Radar observations of meteors at λ = 10 m were carried out in Tomsk from August 1957 to May 1958, and 174,380 meteors were recorded. The index S, characterizing the mass distribution of meteor bodies, was calculated from the distribution of meteor radio echoes (of the stable type) over durations (within the range $1 \leqslant \tau < 10$).

$$S \approx 1 + \frac{4}{3}\left(\lg \frac{N_1}{N_2} : \lg \frac{\tau_1}{\tau_2}\right),$$

where N_1 and N_2 are the numbers of reflections with durations $\geqslant \tau_1$ and τ_2. The S value varied within the limits from

Card 1/2

FIALKO, Ye.I.

Statistical characteristics of radio echoes from meteor trails. Biul.Kom.po komet.i meteor. AN SSSR no.4:9-17 '59. (MIRA 13:4)

1. Tomskiy politekhnicheskiy institut.
(Meteors) (Radar in astronomy)

6,4700
3,9000 (1041, 1109, 1155)

89756
S/169/61/000/002/009/039
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 2, p. 10, # 2044

AUTHOR: Fialko, Ye. I.

TITLE: The Problem of the Diurnal Variation of the Average Hourly Number of the Meteors of a Stream Which are Detected by Radar

PERIODICAL: "Byul. In-ta astrofiz. AN TadzhSSR", 1959, No. 27, pp. 25-30

TEXT: Formulae were derived for the determination of the quantity of meteors of a particular stream, which were recorded by radar, dependently on the diurnal motion of the radiant, the direction of the antenna, and parameter s, which characterizes the distribution of meteor bodies in stream according to their masses. Assuming that the points of reflection from the meteor trails lie in the region of the characteristical altitude h_m, and that one can neglect the curvature of the Earth, the author obtains:

$$N \sim G^{S-1} \cos^{S-1} \chi [\sin \chi]^{-0.5} \quad (7-38) \qquad (1)$$

where G is the directivity coefficient of the antenna in the radioecho plane; χ is the zenith distance of the radiant. With allowance for the curvature of

Card 1/2

89756

S/169/61/000/002/009/039
A005/A001

The Problem of the Diurnal Variation of the Average Hourly Number of the Meteors of a Stream Which are Detected by Radar

the Earth, Eq. (1) remains valid for not too small values of χ, but for $\chi \ll \frac{\pi}{2}$ is

$$\Delta N \sim (h_m/R_o)^{3/4} (1-S)_G S-1, \qquad (2)$$

where R_o is the radius of the Earth. The comparison of the quantity of meteors of the Perseid stream in 1957 with the calculations shows a good agreement for $h_m \approx 100$ km and S = 1.7.

V. Lebedinets

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

88931

3,1720 (1041, 1126, 1127)
9,9600

S/035/61/000/001/007/019
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1961, No. 1, p. 48, # 1A352

AUTHOR: Fialko, Ye.I.

TITLE: On the Relation Between the Intensity of Meteoric Ionization and Meteor Velocity

PERIODICAL: "Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te", 1959, No. 37, pp. 219 - 228

TEXT: The author proposes a method of experimental observation of the relation between the intensity of meteoric ionization and meteor velocity. The author assumes that linear electronic density in the trail α is proportional to a certain power of meteor velocity V on the one hand, and to the duration of radio echo τ on the locator on the other hand, i.e., $\alpha = Av^{x-1} \simeq \tau$; he proposes to calculate unknown parameters A and x by determining electronic concentrations at two points of the trail by using the main and the auxiliary meteor radio locators. There are 14 references.

V. Nasledník

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

88932

S/035/61/000/001/008/019
A001/A001

6.4700

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1961, No. 1, p. 48, # 1A353

AUTHOR: Fialko, Ye.I.

TITLE: On the Influence of Wavelength on the Effectiveness of Radio Locational Method of Studying Meteors

PERIODICAL: "Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te", 1959, No. 37, pp. 229 - 246

TEXT: The author investigated the effect of wavelength and pulse frequency of a radio locator on the number of detected meteors. He proves the existence of an optimum wavelength with which, at a given frequency of pulse repetition, the maximum number of meteors is detected. He points out that it is expedient to employ the band $\lambda = 8 - 10$ m in the case of systems with a low effectiveness ($T_{min} \simeq \simeq 0.1$ sec). Recommendations are given for selecting some parameters of radio location stations for meteor studies. There are 26 references.

V. Naslednik

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

AUTHOR: Fialko, Ye.I. SOV/109-4-7-20/25

TITLE: The Probability of Meteoric Ionisation

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 7, pp 1206 - 1208 (USSR)

ABSTRACT: The investigation of the dependence of the probability of ionisation $\beta(v)$ on the velocity of a meteoric object is of particular interest. The probability is usually expressed in the form $\beta(v) = av^n$ where a and v are constants (T.R. Kaiser - Ref 1). Another parameter of importance is the power or the amplitude of the echo-signals received from the meteors. These parameters were investigated analytically and the results are shown in four figures. Figure 1 illustrates the change of the amplitude of the echo as a function of the velocity of the meteors for the wavelength of $\lambda = 8$ m for five values of n (n = 0; 0,5; 1; 1.5; 2) . Figure 1 shows that for each value of n (except for $n < 0.5$) there exists an optimum velocity for which the signal amplitude is a maximum. The dependence of the optimum velocity on n is illustrated in Figure 2. Figure 3 gives a curve

Card1/2

representing the selectivity of radar observations of the meteors, as compared with the visual observations; N_p represents the number of meteors registered by a radar, while N_B is the number of meteors registered by visual observation. Figure 4 shows, that the largest number of meteors (other conditions being equal) will be registered at the velocity of 55 km/sec; the value of n at this velocity is 1.5.
There are 4 figures and 12 references, of which 10 are English and 2 Soviet.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S.M. Kirova (Tomsk Polytechnical Institute imeni S.M. Kirov)

SUBMITTED: February 16, 1959

AUTHOR: Fialko, Ye.I. SOV/109-4-7-21/25

TITLE: A Method of Estimating the Diffusion Coefficient in the Meteor Zone

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 7, pp 1208 - 1210 (USSR)

ABSTRACT: The measurement of the diffusion coefficient D on the basis of the duration of a meteoric trace was proposed by J.S. Greenhow and E.L. Nenfeld (Ref 1). The measurement requires a fairly complicated equipment. It appears, however, that D can be determined in a simpler manner. The coefficient S , which characterises the mass distribution of meteoric objects, can be found from the differential distribution of the durations of echoes of the unstable type. The coefficient is expressed by Eq (2), where λ is the wavelength of the measuring radar and N_1 is the number of reflections in a time interval having a duration:

$$\tau_1 - \frac{\Delta\tau}{2} \leqslant \tau < \tau_1 + \frac{\Delta\tau}{2} \quad ;$$

Card1/3