"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

LISETSKIY, Nikolay Leontiyevich; SHVARTS, V.A., inzh., retsenzent; SHUBENKO-SHUBINA, L.A., red.; CHISTYAKOVA, L.G., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[High-capacity gas turbines] Gazovye turbiny bol'shoi moshchnosti. Moskva, Mashgiz, 1963. 69 p. (MIRA 16:7)

1. Chlen-korrespondent AN Ukr.SSR (for Shubenko-Shubina).
(Gas turbines)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

ZOZULYA, N.V., kand.tekhn.nauk; SHVARTS, V.A., inzh.; KALININ, B.L.

Heat transfer and hydraulic resistance in a bank of tubes with longitudinal ribbing. Izv. vys. ucheb. zav.; energ. 6 no.8:114-119 Ag '63. (MIRA 16:9)

1. Institut teploenergetiki AN UkrSSR i Khar'kovskiy turbinnyy zavod imeni Kirova.

(Steam pipes)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.A., kand.tekhn.nauk

Characteristics of tubular ribbed heat exchanging surfaces.
Energomashinostroenie 9 no.9:22-28 S '63. (MIRA 16:10)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.A., kand.tekhn.nauk; GLUSHCHENKO, N.N., inzh.; [illegible], A.M., inzh.

Choice of the geometric parameters of finned heat exchanger surfaces of the regenerators of gas turbine systems. Energ. i elektrotekh. prom. no.4:23-24 O-D '64.

(MIRA 18:3)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.A., kand. tekhn. nauk

Heat emission and hydraulic resistance of loose clusters of pipes with longitudinal plate fins. Teploenergetika 11 no.10: 57-59 O '64. (MIRA 18:3)

1. Khar'kovskiy turbinnyy zavod.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

L 59374-65 EPA/EWP(f)/EPF(n)-2/EPR/T-2/EPA(bb)-2 Paa-4/Pa-4 WW

ACCESSION NR: AP5017870 UR/0286/65/000/011/0117/0117
621.438—546

33
B

AUTHOR: Kaplan, M. P.; Shvarts, V. A.; Povolotskiy, L. V.

TITLE: A double shaft gas turbine installation. Class 46, No. 171697

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 117

TOPIC TAGS: gas turbine engine

ABSTRACT: This Author's Certificate introduces: 1. A double shaft gas turbine installation. On one shaft are a medium pressure compressor and a low pressure turbine, while on the other shaft are low and high pressure compressors and a high pressure turbine. The installation is designed for high economy under partial loads. The device has a valved bypass line which connects the air channel after the medium pressure compressor with the gas channel after the high pressure turbine. 2. A modification of this design with a regenerator heated by the gases which are partially removed after the low pressure turbines.

ASSOCIATION: none

Card 1/3

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L 59374-65

ACCESSION NR: AP5017870

SUBMITTED: 19Mar64 ENCL: 01 SUB CODE: PR

NO REF SOV: 000 OTHER: 000

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L 59374-65

ACCESSION NR: AP5017870

ENCLOSURE: 01

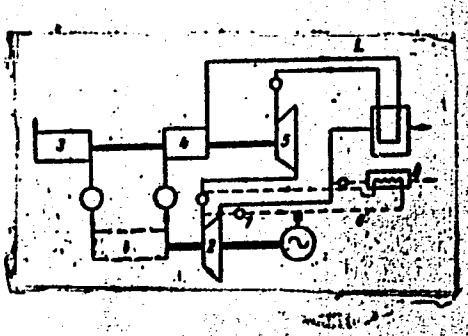

Fig. 1. 1--medium pressure compressor; 2--low pressure turbine; 3--low pressure compressor; 4--high pressure compressor; 5--high pressure turbine; 6--bypass line; 7--valve; 8--regenerator

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.A., kand. tekhn. nauk; VUSHLER, I.Sh., inzh.

Heat emission and hydraulic resistance of an oil cooler with "disk-ring" type partitions. Energomashinostroenie 11 no.6:25-26 Je '65.(MIRA 18:7)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.I.; LEONOV, M.A.; SHAKHNOVICH, V.A.

Heat-resistant iron-base alloy. Biul. TSIICHM no.3:49 '61. (MIRA 14:12)

(Heat-resistant alloys)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

L 13274-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b)/EWA(h) JD

ACC NR: AP6002907 SOURCE CODE: UR/0286/65/000/024/0073/0073

INVENTOR: Shvarts, V.I.; Tsypkina, Ye. D.; Rogachevskiy, Ya. Ye.; Shakhnovich, V. A.; Uvarov, V. A.; Rovenskiy, I. L.; Balter, M. A.; Likhovskikh, M. N.

ORG: none

TITLE: Cast, heat-resistant, iron-base alloy. Class 40, No. 177078

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 73

TOPIC TAGS: alloy, cast alloy, heat resistant alloy, iron base alloy, chromium containing alloy, nickel containing alloy, tungsten containing alloy, molybdenum containing alloy, niobium containing alloy, manganese containing alloy

ABSTRACT: This Author Certificate introduces a cast, heat-resistant, iron-base alloy. To improve mechanical and technological properties, the alloy composition is as follows: 0.18—0.22% carbon, 19—21% chromium, 24—26% nickel, 4.5—5% tungsten, 0.9—1.1% molybdenum, 0.9—1.1% niobium, 0.1% nitrogen, 0.02% cerium, 0.005% boron, 0.8% max silicon, 1.2—1.5% manganese, 0.03% max each of sulfur and phosphorus. [AZ]

SUB CODE: 11/ SUBM DATE: 10Oct63/ ATD PRESS: 4185

UDC: 669.15'24'26-194

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.M.

Curietherapy in precancerous uterine diseases. Zdravookhranenie 2 no.3:33-35 My-Je '59. (MIRA 12:10)

1. Iz ginekologicheskogo otdeleniya 4 klinicheskoy bol'nitsy g.Kishineva (glavnyy vrach M.A.Ashumov). Nauchnyy rukovoditel' - prof.A.Z.Kocherginskiy.
(UTERUS--DISEASES) (RADIUM--THERAPEUTIC USE)
(THORIUM--THERAPEUTIC USE)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

AYZENBERG, V.P.; SHVARTS, V.M.

Diagnosis of malignant tumors of the ovaries. Zdravookhranenie 6 no.3:44-47 My-Je'63 (MIRA 16:11)

1. Iz 4-y klinicheskoy bol'nitsy g. Kishineva (glavnyy vrach M.A.Ashumov).

*

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

TSURKAN, T. A., inzh.; SHVARTS, V. M., inzh.

Drying unit with a capacity of 80 tons per hour for drying industrial products. Obog. i brik. ugl. no.24:32-37 '62. (MIRA 15:10)

(Karaganda Basin—Coal preparation plants—Equipment and supplies)
(Drying apparatus)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

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S/051/62/013/004/020/023
E039/E491

AUTHORS: Meyklyar, P.V., Shvarts, V.M., Kharitonova, Z.V., Borin, A.V., Ryskina, S.I., Siletskaya, N.V.

TITLE: Photographic films for spectroscopy and astronomy

PERIODICAL: Optika i spektroskopiya, v.13, no.4, 1962, 607-609

TEXT: Recent work at the Kazanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta (Kazan' Branch of the All-Union Scientific Research Institute on Cinemaphotography) has been aimed at increasing the sensitivities of photographic films for long exposures and of infrachromatic films. Films having greater sensitivity were developed for long exposures in the near ultraviolet region and for different regions of the infrared up to 1050 mμ. Films for the visible region are designated by the letter A (Astronomy) and a number corresponding to the wavelength for which the sensitivity is a half of the maximum and on the long wavelength side. This film is manufactured at the Kazanskiy khimicheskiy zavod (Kazan' Chemical Works). Films for the infrared region are designated by a number corresponding to its maximum sensitivity. Spectral sensitivity

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curves of films A-500, A-600, A-650, A-660 and A-700 are given. In the table the sensitivity of these films is compared with a corresponding Kodak film. The sensitivities are compared at 400 mμ for the non-sensitized film and at maximum sensitivity for the remaining film. Spectral sensitivity curves are also given for I-740 (I-740), I-810 (I-810), I-900 (I-900), I-1050-1 (I-1050-1) and I-1050-11 (I-1050-11) films. The sensitivity of I-1050-1 and I-1050-11 can be significantly increased by the method of hypersensitization described by S.M.Solov'yev (Fotografirovaniye v infrakrasnykh luchakh - Photography in infrared rays - Izd. "Iskusstvo", M., 1957). An infrachromatic film A-850 is also manufactured which is sensitive up to about 900 mμ. The density of background fogging for all these films does not exceed 0.3. The films should be stored at 2 to 4°C since storage of films for use in the visible region causes an increase in fogging and in the case of infrachromatic films there is a decrease in sensitivity. The gamma of the described films lies in the range 2.0 to 3.0. There are 3 figures and 1 table.

SUBMITTED: May 17, 1962

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

No.	Compared types		$\frac{S_{Kazan'}}{S_{Kodak}}$
	Kazan' film	Kodak	
1	A-500	Oa O	1.8
2	A-650	Oa C	7.0
3	A-660	Oa E	6.0
4	A-700	Oa F	7.0

Abstracter's note: This is an abridged translation.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

DOLGOPOLOVA, N.R.; MEYKLYAR, P.V.; SHVARTS, V.M.

Effect of development conditions on the shape of the spectral sensitivity curve of unsensitized photographic layers. Zhur. nauch. i prikl. fot. i kin. 8 no.3:185-189 My-Je '63. (MIRA 16:6)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofoto-instituta, Kazan'.
(Photographic sensitometry)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

DONSKOV, Vasiliy Yefimovich; SHVARTS, V.M., kandidat ekonomicheskikh nauk, retsenzent; KAMENITSER, S.Ye., kandidat ekonomicheskikh nauk, nauchnyy redaktor; MASLOVA, Ye.F., redaktor; CHEBYSHEVA, Ye.A., tekhnicheskiy redaktor

[Potentials for an increase in labor productivity in the food industry] Rezervy rosta proizvoditel'nosti truda v pishchevoi promyshlennosti. Moskva, Pishchepromizdat, 1956. 147 p. (MIRA 9:8)
(Food industry and trade)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

DONSKOV, Vasiliy Yefimovich, dotsent, kand.ekon.nauk; ZUYEVA, Raisa Vasil'yevna, kand.ekon.nauk; KRUZHKOVA, Raisa Vasil'yevna, kand.ekon.nauk; MESHKOV, Yuriy Konstantinovich, dotsent, kand.ekon.nauk; MOISEYEV, Petr Nikitich, dotsent, kand.ekon.nauk; PONOMAREVA, Irina Andreyevna, kand. ekon.nauk; KHINKIS, Lev Akimovich, starshiy prepodavatel'; KAMENITSER, S.Ye., kand.ekon.nauk, retsenzent; nauchnyy red.; BULGAKOV, G.V., kand. ekon.nauk, retsenzent; SHVARTS, V.M., inzh.ekonomist, retsenzent; PRITYKINA, L.A., red.; SOKOLOVA, I.A., tekhn.red.

[Production organization and planning in food industry enterprises] Organizatsiia i planirovanie proizvodstva na predpriiatiiakh pishchevoi promyshlennosti. Moskva, Pishchepromizdat, 1959. 605 p. (MIRA 12:9)
(Food industry)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

DONSKOV, Vasiliy Yefimovich, prof.; ZUYEVA, Raisa Vasil'yevna, kand. ekon. nauk; KRUZHKOVA, Raisa Vasil'yevna, kand. ekon. nauk; MESHKOV, Yuriy Konstantinovich, kand. ekon. nauk; PONOMAREVA, Irina Andreyevna, kand. ekon.nauk; KHINKIS, Lev Akimovich, st. prepodavatel'; SHAMIN, Andrey Nikolayevich, st. prepodavatel'; KAMENITSER, S.Ye., doktor ekon. nauk, prof., retsenzent; SHVARTS, V.M., inzh.-ekon., retsenzent; FUKS, V.K., red.; PECHENKINA, O.P., tekhn. red.

[Production organization and planning in food industry enterprises] Organizatsiia i planirovanie proizvodstva na predpriiatiiakh pishchevoi promyshlennosti. [By] V.E.Donskov i dr. Moskva, Pishchepromizdat, 1963. 454 p. (MIRA 17:2)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

MEYKLYAR, P.V.; SHVARTS, V.M.; BURIN, A.V.; RYSKINA, S.I.; SILETSKAYA, N.V.

Photographic films for use in spectroscopy and astronomy developed by the Kazan Branch of the Motion Picture and Photography Scientific Researc: Institute. Nur. prikl. spekt. 3 no.1:99-101 Jl '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut, Moskva.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Vladimir Mikhaylovich; BROVKIN, S.I., kand.tekhn. nauk retsenzent; VINOGRADOV, N.V., prof., doktor ekon. nauk, red.; KRUGLOVA, G.I., red.

[Zones of raw materials for the food industry] Syr'evye zony pishchevoi promyshlennosti. Moskva, Pishchevaia promyshlennost', 1965. 95 p. (MIRA 18:12)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.S.; KLIMENKO, V.G.

Study of salt-soluble proteins in the seeds of the millets Setaria moharium and S. italica by paper electrophoresis. Trudy po khim. prirod. soed. no.5:53-57 '62. (MIRA 16:11)

1. Laboratoriya khimii belka Kishinevskogo gosudarstvennogo universiteta.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

PETROV, I.V., inzh.; SHVARTS, V.S., inzh.

Organizing the operation of mortar plants. Bezop.truda v prom. 3 no.1:16-17 Ja '59. (MIRA 12:3)
(Building materials industry)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

PETROV, I.V., inzh.; SHVARTS, V.S.

New methods of organizing the mortar production for the Main Administration of Housing and Public Construction in the City of Moscow. Mekh. stroi. 16 no.1:25-27 Ja '59. (MIRA 12:1)
(Moscow--Mortar)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

PETROV, I.V., inzh.; SHVARTS, V.S., inzh.

Automation of the preparation of building mortars. Mekh. stroi. 18 no.12:10-12 D '61. (MIRA 16:7)

(Mortar) (Automation)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

BASHKIROVA, G.M.; KHIMACH, M.A.; SHVARTS, V.T.; SHISHKIN, N.S.

How to bring about winter precipitation by means of Italian hail-preventing rockets. Trudy GGO no.126:3-7 '62. (MIRA 15:7)
(Snow) (Weather control)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

ACCESSION NR: AT4045158 S/2531/64/000/156/0060/0082

AUTHOR: Chuvayev, A. P., Shvarts, V. T.

TITLE: Characteristics of the development of hail phenomena over the Armenian SSR

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 156, 1964. Voprosy* fiziki oblakov i aktivny*kh vozdeystviy (Problems of the physics of clouds and active particles), 60-82

TOPIC TAGS: meteorology, hail, atmospheric turbulence, climate, climatology, cloud physics, atmospheric physics, weather forecasting

ABSTRACT: Hail occurs more frequently in the Armenian SSR than in any other part of the Soviet Union. This paper gives information on the areal distribution of hail in Armenia based on mean monthly and mean annual values of the number of days with hail at 55 stations. At 20 stations there were 5 or more such days per year, hail being most frequent in the northwestern part of the republic. At the Aragats high-mountain station the average was 14.6 occurrences annually. The complexity of orographic conditions in Armenia is one of the principal factors behind the relatively high frequency and nonuniform distribution of hail. Almost

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ACCESSION NR: AT4045158

90% of Armenia is more than 1,000 m above sea level; there are many mountain ranges with different orientations relative to the predominant paths of movement of precipitation-forming air masses; the mountain slopes themselves are considerably dissected and there are numerous river valleys, basins and isolated high peaks. Elevation itself is not the basic factor responsible for hail frequency, but tabulated data show there is some relationship. Another table shows that stations only short distances apart can have entirely different hail records. Hail falls in the warm season, mostly in May and June, somewhat later than the precipitation maximum, when the atmospheric instability and humidity are high, and the surface air layer is strongly heated. Attempts were made to relate the dates of disappearance of the snow cover to hail occurrence. Various tables give data such as the following: a) monthly number of cases of hail for the years 1946-1950; b) diurnal variation of hail (by hours); c) frequency of hail by 6-hour intervals; d) mean annual number of days with hail and thunderstorms at individual stations; e) number of days with hail associated with air-mass conditions and fronts; f) relationship between hail occurrence and type of pressure system aloft. These data and relationships are useful in weather (hail) forecasting and in development of methods for cloud modifications for the pre-

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

ACCESSION NR: AT4045158

vention of destructive occurrences of hail. Orig. art. has: 10 figures and 11 tables.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00 ENCL: 00 SUB CODE: ES

NO REF SOV: 014 OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

CHUVAYEV, A.P.; SHVARTS, V.T.

Characteristics of the development of hail phenomena over the Armenian S.S.R. Trudy GGO no.156:60-82 '64. (MIRA 17:10)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

CHUVAYEV, A.P.; ORENBURGSKAYA, Ye.V.; OSIPOVA, G.I.; SHVARTS, V.T.

Methodology of estimating the climatic resources of an artificial increase of precipitation from convective clouds (based on materials of Lake Sevan Basin). Trudy GGO no.156:101-117 '64. (MIRA 17:10)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

OSIPOVA, G.I.; CHUVAYEV, A.P.; SHVARTS, V.T.

Some characteristics of the precipitation from various kinds of clouds during the warm season in the basin of Lake Sevan. Trudy GGO no.163:156-180 '64 (MIRA 18:1)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

OSIPOVA, G.I.; SHVARTS, V.T.

Some characteristics of abundant precipitation in the warm half of the year in the basin of Lake Sevan. Trudy GGO no.176:77-97 (MIRA 18:8)
'65.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS V.V.

TLUSTY, Jiri [Tlustyy, Irzhi, inzhener, laureat Gosudarstvennoy premii, Chekhoslovatskaya Akademiya nauk]; SPACEK, Ladislav [SHPACHEK, Ladislav, doktor, laureat gosudarstvennoy premii]; [redacted], [translator]; KUDINOV, V.A., kandidat tekhnicheskiy nauk, redaktor; UVAROVA, A.F., tekhnicheskiy redaktor

[Self-induced vibrations in machine tools] Avtokolebaniia v metallorezhushchikh stankakh. [Supplement: Ladislav Spacek. The theory of coordinate relations for systems with several degrees of freedom. Translated from the Czech] Prilozhenie: Ladislav Shpachek. Teoriia koordinatnoi sviazi dlia sistemy so mnogimi stepeniami svobody. Perevod s cheshskogo V.V.Shvartsa. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 394 p. (MLRA 10:1)

(Machine tools--Vibrations)
(Differential equations)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.V.

Effect of relative shift of axes of the part and the cutting tool on machining precision of helical surfaces. Stan.i instr. 33 no.8:12-15 Ag '62. (MIRA 15:8)
(Metal cutting)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

CHERNOKH, S.[Cernoch,S.]; SHVARTS, V.V.[translator]; MEL'TSER, R.Ye.[translator]; GOL'DSHTEYN, M.S.[translator]; DULA, I.Ya.[translator]; SHVARTS, I.V.[translator]; YAKUBOVICH, L.V.[translator]; ACHERKAN, N.S., prof., doktor tekhn. nauk, red.; GIL'DENBERG, M.I., red.izd-va; TIKHANOV, A.Ya., tekhn. red.

[Handbook on the manufacture of machinery in two volumes] Spravochnik po mashinostroeniiu v dvukh tomakh. Moskva. Mashgiz, Vol.1. 1963. 734 p. Translated from the Czech. (MIRA 16:12)

(Mechanical engineering) (Metalwork)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.V.

Replacing the involute by a circumference in grinding slotted shafts. Stan. i instr. 35 no. 4:17-19 Ap '64. (MIRA 17:5)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, V.V.

Effect of the deviations of pantograph dimensions on the error of the copied profile. Stan. i instr. 34 no.12:14-16 D '63. (MIRA 17:11)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, N.Ya.; YARMIR, I.Sh.

Extension elements of semigroups with one-sided unity. Usp. mat. nauk 19 no.4:209-214 '64. (MIRA 17:10)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, VA. A.

"The Laying of Gas Pipelines in the Winter," (Montazh gasoprovodov v zimnikh usloviyakh), State Scientific and Technical Publishing House for Literature on Petroleum and Mined Fuel, Moscow-Leningrad, 1947.

Comments - D 221457, 2 May 55

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya. A.

Geology

"Experience in Sinking Ultra-deep Oil Wells", Gostoptekhizdat, 1948

Summary No. 60, 26 May 52; BR-52056899

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVANTS, YA. A.

Modeling the Cementing of a Vertical Well Dokl. AN Azerb. SSR, Vol 10, No 6, 1954, pp 409-412 (Azerbaydzhani resume)

The author indicates the fundamental parameters of a well and of a clayey and cement solution which in his opinion influence the successful result of cementing an oil well. He then derives a number of criteria which turn out to be in contradiction with each other. This fact robs the article of much of its practical value. (RZhMekh, No 3, 1955)

SO: Sum. No. 568, 6 Jul 55

Petrol. Expert. AS Azer SSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya.A.

Raising the cement plug above the drill collar of an operating column during the period of cement setting and hardening. Dokl. AN Azerb. SSR 10 no.5:313-319 '54. (MLRA 8:4)

1. Neftyanaya ekspeditsiya Akademii nauk Azerbaydzhanskoy SSR. Predstavleno deystvitel'nym chlenom Akademii nauk Azerbaydzhanskoy SSR G.N.Gaziyevym.
(Oil well drilling)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

AID P - 5[illegible]

Subject : USSR/Mining

Card 1/1 Pub. 78 - 2/29

Authors : Aliyev, M. A., Ioannesyan, R. A. and Shvarts, Ya. A.

Title : More rational production organization is required for oil well drilling

Periodical : Neft. Khoz., v. 32, #7, 6-9, Jl 1954

Abstract : Discussion of the article "Some problems on the organization of work in oil well drilling" by M. A. Saakov, (Neft. Khoz., #11, 1953).

According to Saakov, the basic production unit covers the territory of the whole oil field, including assembly crew, repair brigades, material and pipe supplies and drillers' crew. Contrary to this opinion the authors consider that the office of the oil well drilling is a controlling center and other services such as geological prospecting, assembling, repair etc., are auxiliary services and must be controlled by the so-called "Chief controlling foreman".

Institution: None

Submitted : No date

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya.A.

Model preparation of a well shaft for lowering casings. Dokl. AN Azerb.SSR 11 no.2:93-96 '55. (MLRA 8:10)

1. Neftyanaya ekspeditsiya Akademii nauk Azerbaydzhanskoy SSR. Predstavleno deystvitel'nym chlenom Akademii nauk Azerbaydzhanskoy SSR. G.N.Gaziyevym.
(Oil well drilling)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

MIRZADZHANZADE, A.Kh.; SHVARTS, Ya.A.; ABBASOV, A.A.

Displacement of drilling fluid by cement in the water string. Dokl.AN Azerb. SSR 11 no.12:845-850 '55. (MLRA 9:7)

1.Neftyanaya ekspeditsiya AN Azerbaydzhanskoy SSR. Predstavlena deystvitel'nym chlenom AN Azerbaydzhanskoy SSR Z.I.Khalilovym.
(Oil well drilling fluids) (Petroleum engineering)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SOV/124-58-4-4215

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 4, p 75 (USSR)

AUTHOR: Shvarts, Ya. A.

TITLE: On the Model Simulation of the Displacement of Clay Mortar by Cement Mortar During the Process of the Cementing of Vertical Gaps (O modelirovanii vytesneniya tsementnym rastvorom glinistogo v protsesse tsementirovki vertikal'nykh skvazhin)

PERIODICAL: Izv. AN AzerbSSR, 1956, Nr 10, pp 67-74

ABSTRACT: The author enumerates the basic factors which influence the process of displacing clay mortar by cement mortar, applies the π theorem of similarity, introduces pertinent criteria of similarity, and discusses the question as to which of these criteria are substantial and feasible. Bibliography: 14 references.

1. Structures--Simulation 2. Clays--Performance
3. Cements--Performance 4. Mathematics

N. A. Slezkin

Card 1/1

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

IOANNESYAN, R.A.; LALAYAN, M.L.; SHVARTS, Ya.A.

Results of drilling the deepest well in Europe (4812 meters). Azerb.neft.khoz. 35 no.2:8-10 F '56. (MLRA 9:10)

(Oil well drilling)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

KULIYEV, S.M.; SHVARTS, Ya.A.

Effect of the rotation of the drill column on the intensity of clay sheath formation on the wall of the well [in Azerbaijani with summary in Russian]. Dokl. AN Azerb. SSR 14:747-751 '58. (MIRA 11:11)

(Oil well drilling)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

MIRZOYAN, A.A.; RASI-ZADE, Ya.M.; SEID-RZA, M.K.; SHVARTS, Ya.A.

Factors determining the maximum capacity of turbodrills (to be concluded). Azerb.neft.khoz. 38 no.1:17-19 Ja '59. (MIRA 12:4)

(Turbodrills)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

MIRZOYAN, A.A.; RASI-ZADE, Ya.M.; SEID-RZA, M.K.; SHVARTS, Ya.A.

Factors determining the maximum capacity of turbodrills [conclusion]. Azerb. neft. khoz. 38 no.2:14-16 F '59. (MIRA 12:5)

(Turbodrills)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

1. A. A. Abbasov, A. F. Kasimov, Ya. A. Shneris (Baku): Supersonic motions of visco-plastic solids and the basis for improving well cementation.
2. A. A. Abbasov, V. M. Mukhtiev, A. A. Mirzojan (Baku): Heat transfer in moving viscous and visco-plastic solids.
3. S. L. Abrosjan (Erevan): Torsion of cylindrical shafts.
4. S. L. Abrosjan, A. A. Babloian (Erevan): Torsion of circular hollow shafts with longitudinal notches.
5. V. I. Agafonov, A. S. Volmir, V. S. Minaev (Moscow): Buckling and post-buckling behavior of shells under dynamic loading.
6. A. Ia. Aleksandrov (Novosibirsk): Some relations between the solutions of plane and axisymmetrical problems in the theory of elasticity.
7. A. Ia. Aleksandrov (Novosibirsk): Experimental investigation of plane elastic-plastic problems by means of photoelastic films.
8. V. M. Aleksandrov, Ya. A. Rostovtsev (Rostov-na-Donu): Some contact problems in elasticity.
9. S. A. Aleksandrian, S. Kh. Arutiunian, M. S. Manukian (Erevan): Torsion of prismatic bars under transient creep.
10. S. A. Alekseev (Moscow): Two-dimensional bodies of equal strength.
11. S. A. Alumäe (Tallin): Axisymmetrical vibration of an elastic conical shell.
12. S. A. Ambartsumian (Erevan): On the theory of anisotropic shells and plates.
13. S. A. Ambartsumian, L. A. Movsisian (Erevan): Some problems in the theory of anisotropic (non-orthotropic) shells.
14. I. Ia. Amiro (Kiev): Stability analysis of a stiffened cylindrical shell under axial compression.
15. V. V. Andreev, A. M. Kaverich, L. V. Tkachev (Kharkov): The inelastic deformation and residual strains in a plane layer of a solid under allotropic transformations.
16. I. G. Aramanovich (Moscow): The stress distribution in a heavy half-space with a circular hole, the edge of which is subject to non-equilibrated forces.
17. M. Arnea, M. Tarnenbaum (Bucharest): Photoelastic model studies of ground reinforced concrete beams.
18. S. Kh. Arutiunian (Erevan): The plane contact problem of the theory of creep.
19. V. V. Asonov, T. I. Latsinina, A. A. Troponikov (Moscow): Shear strengths and limits of reversible strains of solutions and gels of some rubbers.
20. A. S. Balda (Leningrad): The general solution of the problem of elastic strains in a cylinder of finite length.
21. G. I. Barenblatt (Moscow): The theory of equilibrium cracks under brittle rupture.
22. G. M. Bartenev (Moscow): Rheological properties of rubber-like polymers.
23. M. F. Barshtein (Moscow): Dynamic design of structures subjected to random effects.
24. S. S. Bashlykov (Moscow): Temperature distribution in container and metal during extrusion.
25. Bar on Fin (Pakistan), Shun Tsuhu-Ehng (Taiwan), G. S. Shapiro (Moscow): On the dynamics of rigid-plastic structures.
26. V. S. Barsegianov (Leningrad): The theory of the limit state of stress in soil mechanics and its applications.
27. A. Ia. Bitman, A. S. Volmir (Moscow): The use of electronic digital computers for solving non-linear problems in the theory of plates and shells.
28. V. I. Blokh (Kharkov): Stress displacement functions.
29. V. A. Bobin (Dnepropetrovsk): Difference-variational methods of the theory of structures.
30. V. I. Bodko (Kiev): On solving Sorte's contact problem with interior fields of plasticity.
31. V. V. Bolotin (Moscow): Method of space transformations in the non-linear theory of plates and shells.
32. V. V. Bolotin (Moscow): The non-linear problems of aero-elasticity at supersonic speeds.
33. V. V. Bolotin (Moscow): Strength and damage under action of random forces.
34. V. V. Bolotin (Moscow): The statistical theory of seismic design of structures.

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SHVARTS, Ya.A.

Excluding aquifers from oil-bearing layers in drilling operations. Trudy AzNII DN no.9:187-193 '60. (MIRA 14:5)
(Oil fields--Production methods)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

MIRZOYAN, A.A.; GULIYEV, B.A.; SHVARTS, Ya.A.

Selection of the number of stages of turbodrill based on maximum drilling rate. Azerb. neft. khoz. 39 no.7:10-14 Jl '60. (MIRA 13:10)

(Turbodrills)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

MIRZOYAN, A .A.; GULIYEV, B.A.; SHVARTS, Ya.A.

Selection of the number of turbobit stages based on maximum drilling capacity. Azerb.neft.khoz. 39 no.8:16-18 Ag '60. (MIRA 13:11)

(Turbodrills)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya.A.

Method for testing the watertightness of production casings.
Azerb.neft.khoz. 39 no.9:23-34 S'60. (MIRA 13:10)
(Oil well casing)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya. A.

Doc Tech Sci - (diss) "Technology of cementing of petroleum wells." Moscow, 1961. 23 pp; (Academy of Sciences USSR, Inst of the Geology and Development of Flammable Mineral Resources, Azerbaydzhan Scientific Research Inst for Petroleum Extraction); 250 copies; free; list of author's works on pp 21-22 (18 entries); (KL, 7-61 sup, 231)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya.A.

Installation of a blowout preventer. Neftianik 7 no.2:10-11 F '62. (MIRA 15:2)

(Oil wells--Equipment and supplies)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya.A.

Prospecting drilling down to a depth of 15,000 meters. Azerb. neft. khoz. 41 no.9:23-24 S '62. (MIRA 16:6)

(Boring)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

ABDULRAGIMOV, A.I., inzh.; VLASOV, S.N., inzh.; PIRVERDYAN, A.M., doktor tekhn. nauk; SHVARTS, Ya.A., doktor tekhn. nauk; LISTENGARTEN, L.B., inzh.; YAKUBOV, Yu.G., inzh.

Practices in building tunnels in soil with great hydrostatic pressure. Transp. stroi. 15 no.11:17-19 N '65. (MIRA 18:11)

1. Baktonnel'stroy (for Abdulragimov, Vlasov). 2. Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche nefti (for Pirverdyan, Shvarts, Listengarten). 3. Bakmetroproyekt (for Yakubov).

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L 26461-66

ACC NR: AP6017380 SOURCE CODE: UR/0230/65/000/011/0017/0019

AUTHOR: Abdulragimov, A. I. (Engineer); Vlasov, S. N. (Engineer); Pirverdyan, A. M. (Doctor of technical sciences); Shvarts, Ya. A. (Doctor of technical sciences); Listengarten, L. B. (Engineer); Yakubov, Yu. G. (Engineer)

ORG: [Abdulragimov, Vlasov] Baktonnel'stroy; [Pirverdyan, Shvarts, Listengarten] AzNII EN; [Yakubov] Bakmetroproyekt

19 B

TITLE: Construction of tunnels in soils with high hydrostatic pressure

SOURCE: Transportnoye stroitel'stvo, no. 11, 1965, 17-19

TOPIC TAGS: railway tunnel, construction, hydrostatic pressure

ABSTRACT: Part of the Baku subway system had to be passed through fine-grained sandy loam with underground water pressure of over 4 atm. Experiments showed that continuous out-pumping could lower the water table somewhat in the area of the operations. After analysing several plans, it was decided that 43 wells would be dug, 27 in an outer ring, 16 in an inner ring, to lower the water pressure in the work area; as the tunnel was dug under compressed air, the wells were systematically checked and freed of filtered air. The pressure in the work tunnels was 1.5-1.7 atm. Orig. art. has: 4 figures. [JPRS]

SUB CODE: 13 / SUBM DATE: none

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VEYTSMAN, P.S.
SHVARTS, YA. B.

L 31816-65 EWT(1)/EWA(h) Peb GW S/ 30
AM4045250 BOOK EXPLOITATION 15
B+1

Akademiya nauk SSSR. Institut fiziki zemli im. O. Yu. Shmidta

Structure of the earth's crust in the zone of transition from the continent of Asia to the Pacific Ocean (Stroyeniye zemnoy kory v oblasti perekhoda ot Aziatskogo kontinenta k Tikhomu Okeanu) Moscow, Izd-vo "Nauka", 1964. 307 p. illus., biblio., foldin charts (in portfolio). Errata slip inserted. 1200 copies printed. Responsible editors: Ye. I. Gal'perin, I. P. Kosminskaya; Editor of the publishing house: S. I. Masarskiy; Technical editors: Ye V. Makuni, S. G. Tikhomirova

TOPIC TAGS: area seismic sounding, earth crust, geophysics, international geophysical year, ocean, seismic wave

PURPOSE AND COVERAGE: This monograph is devoted to studies by the method of deep seismic sounding (GSZ) in the zone of transition from the Asiatic continent to the Pacific Ocean (Kamchatka, the Kurile peninsula, Bering Sea, etc.) during the International Geophysical Year (MGG). The material is presented as a collection of individual chapters, although all are devoted to a single problem and are

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essentially parts of one book. The authors express their gratitude to Professor V. V. Fodymskiy, Chairman of the working subgroup of the Sovetskiy Natsional'nyy Komitet, initiator and organizer of complex geophysical research, and also to Corresponding Member of the Academy of Sciences of the USSR V. V. Belousov. The concluding chapter was prepared by A. G. Aver'yanov, P. S. Veytsman, Ye. I. Gal'perin, S. M. Zverev, and I. P. Kosminskaya.

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Ch. 4. Dynamic characteristics of deep waves for certain models of the earth's crust (A. G. Aver'yanov, I. P. Kosminskaya, G. A. Yaroshevskaya) - - 39

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Ch. 5. Results of studying a sedimentary stratum in the Sea of Okhotsk and the Kurile-Kamchatka Zone of the Pacific Ocean (S. M. Zverev) - - 90
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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

Shvarts, Ya. D.

76-10-19/34

AUTHORS: Tsiklis, D. S., Shvarts, Ya. D.

TITLE: Gas-Liquid Equilibrium in the System Acetaldehyde-Methane Under High Pressures (Ravnovesiye zhidkost' - gaz v sisteme atsetal'degid - metan pri vysokikh davleniyakh).

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 10, pp. 2302-2305 (USSR)

ABSTRACT: Referring to the paper of one of the authors (Tsiklis) in Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, p. 100, the solubility of methane in acetaldehyde and of the acetaldehyde in methane at a pressure of 100 at and temperatures of from 0 to 40° C is determined here. The solubility of the methane in acetaldehyde was determined at 1,20 and 40° C and pressures up to 90 at. This can be expressed by the equation of I. R. Krichevskiy, and N. Ye. Khozanova, for solutions of polar liquids in non-polar gases. The solubility of the acetaldehyde in compressed methane was determined at 1,20 and 40° C and pressures up to 110 at. The equation of Krichevskiy-Khazanova gives the data for the solubility of the

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Gas-Liquid Equilibrium in the System Acetaldehyde-Methane Under High Pressures 76-10-19/34

acetaldehyde in compressed methane satisfactorily. The equation see "Acta Physicochem." 15, 327, 1941. There are 2 figures, 3 tables, 7 Slavic references.

ASSOCIATION: Institute for Nitrogen Industry, Moscow (Institut azotnoy promyshlennosti, Moskva).

SUBMITTED: July 24, 1956

AVAILABLE: Library of Congress

CARD 2/2

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SHVARTS, Ya.E. (Odessa, ul. Bebelya, d.22, kv.5); GESHELIN, S.A. (Odessa, ul. Lenina, d.11, kv.19)

Two cases of cancer of the large intestine. Vop.onk. 5 no.7:85-87 '59. (MIRA 12:12)

1. Iz khirurgicheskogo otdeleniya (zav. - prof. doktor med.nauk B.Ye. Frankenberg) Odesskoy gorodskoy klinicheskoy bol'nitsy (glavnyy vrach - V.M. Levandovskiy).
(ADENOCARCINOMA - case reports)
(COLON - neoplasms)

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SHVARTS, Ia. I.

Ind Eng (2)

Meteorological Abst.
Vol. 4 No; 7
July 1953
Structure and Physics
of the Atmosphere

551.510.42

4.7-64

Shvarts, IA. I. and Zil'berg, L. A., Zonal'noe issledovanie zagiaznennosti atmosfernogo vozdukha vokrug tolevogo zavoda. [Zonal investigations of atmospheric pollution around a glue factory.] Gigiena i Sanitariia, 7:53-54, July 1952. DLC--Air samples were taken at level of 1.5 to 2.5 m above the ground at varying distances from the factory. The distances varied according to the nature of the contaminants tested. Data on the concentration of hydrocarbon, SO_2 and dust at the respective four zones are presented. Subject Headings: 1. Atmospheric pollution 2. Air sampling and Analysis. --I.L.D.

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SHVARTS, YA.I.,

USSR.

✓Determination of soot in the atmosphere of Riga. Ya. I. Shvarts, R. I. Berezman, and L. A. Zil'berg (Lab. in Riga, ~~Latvia SR~~ Leningrad Sci. Research Inst. Labor Protection, All-Union Central Council Trade-Unions). *Gigiena i Sanit.* 1954, No. 12, 14-18.—Extensive tabulated data are given as a result of analysis of Riga atm. for soot. To det. soot, ext. the dust specimen with $CHCl_3$, leaving behind the mineral dust, filter through paper, and from the dark spots left on the paper, est. the content by means of photometry. The presence of mineral dust interferes with the detn. of soot. In the majority of cases, soot was the minor component. For more correct detn., draw the air samples through cotton filters, det. the wt. gain, and ext. the filters 24 hrs. with $CHCl_3$ at room temp.; filter the liquid, evap., and measure the residue colorimetrically; compare with a standard scale prepd. by filtering a soot-$CHCl_3$ mixt. of known concn. through standard filter paper. The method is sensitive to 0.002-0.004 mg./cu. m. of soot. G. M. K.

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9(3)14) PHASE I BOOK EXPLOITATION SOV/2746

Akademiya nauk USSR. Fiziko-tekhnicheskiy institut

Elektrostaticheskiye generatory; sbornik statey (Electrostatic Generators; Collection of Articles) Moscow, Atomizdat, 1959. 255 p. 4,100 copies printed.

Ed. (Title page): A. K. Val'ter, Member, Academy of Sciences, USSR; Ed. (Inside book): Z. D. Andreyenko; Tech. Ed.: N. A. Vlasova.

PURPOSE: This collection of articles may be useful to scientists and engineers working with high-voltage electrostatic generators.

COVERAGE: The authors discuss the construction and operation of a number of electrostatic generators developed in the USSR and describe methods of generating negative hydrogen ions. They discuss the operation of accelerating tubes and present methods of stabilizing accelerator voltages. No personalities are mentioned. References appear at the end of some articles.

Berbiger, A. M. High-frequency Sources for Electrostatic Generators 77
The author presents the results of study, conducted by FTI AN UkrSSR in 1952-1955, of factors affecting the ring discharge in hydrogen in a transverse magnetic field and those affecting the percentage of ions in a 10-50-mc frequency range and initial pressure in the discharge chamber of 1 through 4x10⁻⁴ mmHg. He also discusses the construction and operation of a high-frequency ion source. There are 3 references: 2 English and 1 German.

Belyayev, V. Kh., A. K. Val'ter, K. K. Cherryavskiy and S. P. Tsytko. High-voltage Vertical-Horizontal Electrostatic Generator 90
The authors discuss the construction and operation of an electrostatic generator with a cross-shaped steel boiler and two horizontal tubes and describe the advantages of such a design over horizontal and vertical types of generators. There are 23 references: 8 Soviet, 13 English, 1 French and 1 Danish.

Ossetinskiy, G. M. Magnetic Analyzer as an Instrument for Measuring Voltages of an Electrostatic Generator 99
The author discusses the use of a magnetic analyzer for measuring voltages of an electrostatic generator. He briefly explains the construction of the analyzer and describes the procedure used in measurement. There are 3 references, all English.

Ossetinskiy, G. M., and I. A. Chepurchenko. Voltage Stabilization of an Electrostatic Generator. 106
The authors discuss the construction and operation of a voltage stabilization circuit and its elements such as a differential amplifier and a corona triode and describe the method of experimentally determining the degree of stabilization. There are no references.

Fogel', Ya. M., A. M. Markus, V. T. Tolok and Ya. I. Shvarts. Ion Sources for Electrostatic Generators in a Compressed Gas 113
The authors discuss the requirements of ion sources for electrostatic generators and describe the construction of a magnetic ion source with a cold cathode and a high-frequency source. They also discuss the experimental study of these sources conducted by FTI AN UkrSSR and describe the experimental results. There are 29 references: 9 Soviet, 18 English and 2 German.

Fogel', Ya. M., L. I. Krupnik, A. G. Koval' and A. D. Timofeyev. Source of Negative Hydrogen Ions for an Overcharging Electrostatic Generator 141
The authors describe the construction and operation of three models of negative hydrogen-ion sources developed by FTI AN UkrSSR and present the analysis of their characteristics. The first and the second models were developed in 1955 and 1956 respectively. The third model, built later, is essentially a copy of that developed by Weinman, J. A., and Cameron, J. K., of the University of Wisconsin, U. S. A. In the analysis of characteristics of these models the authors discuss the negative ion spectrum, methods of determining the coefficient of transformation of positive ions into negative, focusing of ion beams, and loss of ion energy. There are 9 references: 3 Soviet, 4 English and 2 German.

Plyuvar, I. I. Accelerating Tube of an Electrostatic Generator 183
The author briefly discusses factors affecting electric strength of an accelerating tube and describes processes taking place on tube walls and intermediate electrodes. He also explains the effect of residual gases and vapors in a tube on its operation. There are 11 references: 3 Soviet, 7 English and 1 French.

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BLOKH, M.V., inzh.; GARKUSHA, P.N., inzh.; DORFMAN, Yu.I., inzh.; SHVARTS, Ya.I., inzh.

Dynamic strength of the cooler fan wheels of TEZ and TE10 diesel locomotives. Vest.TSNII MPS 20 no.5:21-25 '61. (MIRA 14:8)

1. Khar'kovskiy teplovozostroitel'nyy zavod im. V.A.Malysheva.
(Diesel locomotives--Cooling)

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GLOVINSKIY, Ya.G., inzh., red.; PAVLOV, S.M., inzh., red.; VOL'BERG, N.Ye., inzh., red.; SHVARTS, Ya.I., inzh., red.

[Construction specifications and regulations] Stroitel'nye normy i pravila. Moskva, Gosstroiizdat. Pt.3. Sec.G. ch.10.2 [Compressors; regulations for the performance and acceptance of assembled work] Kompressory; pravila proizvodstva i priemki montazhnykh rabot (SNiP III-G. 10.2-62). 1963. 17 p. (MIRA 17:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. TSentral'nyy proyektno-konstruktorskoye otdeleniye Glavkhimmontazha Gosudarstvennogo proizvodstvennogo komiteta po montazhnym i spetsial'nym stroitel'nym rabotam SSSR (for Shvarts).

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

IMYANITOV, I.M.; SHVARTS, Ya.M.

Abatement of interference currents occurring at the input of an electrostatic fluxmeter operated in a conducting medium. Isk. sput. zem. no.3:77-83 '59. (MIRA 12:12)
(Artificial satellites) (Electric measurements)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya.M.

Determining the electric potential of bodies in a plasma.
Isk.sput.Zem. no.4:161-164 '60. (MIRA 13:5)
(Plasma (Ionized gases))
(Electric fields--Measurement)

COVERAGE: The collection consists of 19 articles dealing with scientific data on Soviet artificial earth satellites (ARS) and cosmic rockets. The topics discussed include measurements of the density of the upper atmosphere, motion of ARS, measurements of micrometeorites and meteoric matter, magnetometric measurements of cosmic rays, electrical potential, and spectrum of positive ions. The collection is part of a series published regularly. References follow each article.

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9,6150
9,9120(incl. 2305,2705)

S/109/61/006/001/018/023
E140/E163

AUTHOR: Shvarts, Ya.M.

TITLE: The theory of operation of the electrostatic fluxmeter in plasma

PERIODICAL: Radiotekhnika i elektronika, Vol.6, No.1, 1961, pp. 153-159

TEXT: In ordinary electrostatic fluxmeters the effects of conductance current can be neglected. In the case of a plasma - for example, the ionosphere, measured from an artificial earth satellite - it is necessary to consider noise voltages arising from conductance currents. The analysis shows that in vibrating plate fluxmeters the noise voltage is several orders of magnitude greater than and in quadrature with the signal voltage. Ordinary synchronous detectors, as shown in Fig.2a (1 - electrostatic generator, 2 - amplifier, 3 - synchronous detector), are inadequate to reduce the interference voltage sufficiently. The author proposes the use of his feedback phase-sensitive detector (Fig.2б) where, in addition to the notation of Fig.2a, 4 - basic

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The theory of operation of the electrostatic fluxmeter in plasma

synchronous detector, 5 - auxiliary synchronous detector. The electrostatic generator is designed in such a way that the feedback voltage is in phase opposition to the noise voltage. The precise arrangement is described in the author's patent (Ref.4: Author's certificate No. 123247, class 21c, 501, 1959). For the electrostatic generator with screening frequency 1500 cps this arrangement permits measuring fields of the order of 3×10^{-2} V/cm. Acknowledgements are expressed to I.M. Imyanitov for his attention to the work.
There are 2 figures and 5 Soviet references.

SUBMITTED: April 4, 1960

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S/531/62/000/136/007/007
A052/A101

9,4110

AUTHOR: Shvarts, Ya. M.

TITLE: On working conditions of electrostatic fluxmeters in the upper atmosphere

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy. no. 136, 1962. Atmosfernoye electrichestvo, 83 - 95

TEXT: It is proposed to use the rotary electrostatic fluxmeter for measuring electrostatic fields at the surface of rockets and satellites. Since the working conditions of fluxmeters are affected by the electric field intensity, the thickness of space charge layer at the surface of a sounding body and by electric current on its surface under various conditions of the upper atmosphere and interplanetary space, the author makes an attempt to evaluate the probable values of these factors. The conclusion is drawn that the electrostatic field at the surface of a sounding body is conditioned mainly by the body's own charge. Maximum field values are to be observed at maximum concentrations of charged particles that is

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AFMDC/ESD-3/APGC/IJP(C)/SSD Pi-4/Po-4/Pe-4/Pab-4/Pq-4 TT/GW/K
ACCESSION NR: AT3007030 S/2560/63/000/017/0059/0065
96
92

AUTHOR: Imyanitov, I. M.; Shvarts, Ya. M.

TITLE: Measurement of electrostatic field intensity on the third artificial earth satellite 21

SOURCE: AN SSSR. Iskusst. sputniki Zemli, no. 17, 1963, 59-65

TOPIC TAGS: third Soviet earth satellite, Soviet earth satellite, satellite, artificial earth satellite, earth satellite, electrostatic fluxmeter, fluxmeter, electrostatic field measurement

ABSTRACT: Measurements of electrostatic field intensity 12 at the surface of the third Soviet artificial satellite 12 made by an electrostatic fluxmeter attached to the satellite, are discussed. The measurements covered a range of ± 2 v·cm^{-1}. Linearity of the dependence of output signal on measured field intensity was ensured by the use of synchronous detectors. Equipment error did not exceed $\pm 15\%$; to keep it to a minimum, the constancy of gain and zero was checked every four minutes. The excess of the duration

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of a positive over that of a negative field at the satellite surface testifies to the presence of a negative charge on the satellite surface during those sectors of the trajectory in which the electrostatic field was measured. Variations of the intensity of the electrostatic field at the satellite surface which do not correlate with the position of the pickup in relation to the direction of motion, the sun, and the magnetic field are due to the intense charging of the satellite. "S. I. Zachek, N. P. Ziganov, V. V. Mikhaylovskaya, and V. G. Borodulina participated in the development of the equipment." Orig. art. has: 9 figures.

ASSOCIATION: none

SUBMITTED: 07Aug62 DATE ACQ: 11Oct63 ENCL: 00

SUB CODE: AS, GE NO REF SOV: 005 OTHER: 002

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L 20255-63 EWT(1)/BDS/ES(v) AFFTC/ASD/AFMDC/ESD-3/APGC Pe-4/Pe-4 GW

ACCESSION NR: AT3007031 S/2560/63/000/017/0066/0081

AUTHOR: Imyanitov, I. M.; Gdalevich, G. D.; Shvarts, Ya. M.

TITLE: Measurement of electrostatic field intensity at the surface of geophysical rockets moving in upper atmospheric layers

SOURCE: AN SSSR. Iskusst. sputniki Zemli, no. 17, 1963, 66-81

TOPIC TAGS: electrostatic field intensity, field intensity, electrostatic field, geophysical rocket, rocket, ionospheric electrostatic field, ionospheric current

ABSTRACT: A discussion is presented of methods used to measure electrostatic field intensity at the rocket surface during flights of nonstabilized geophysical rockets on 14 July 1959, 15 June 1960, and 24 June 1960 and during flight of a stabilized geophysical rocket on 15 November 1961. The basic measuring circuit is shown in Fig. 1 of the Enclosure, diagrams of the sensing elements, in Figs. 2 and 3. Disk-shaped measuring plate 1 (Fig. 2) was situated at the rocket surface and responded to the local space

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charge in the vicinity of the rocket. Rotating and fixed slotted disks 2 and 3 were located above the sensing disk; the rotating disk was spun at 900 cps to give a chopped output signal in load resistor R proportional to the field intensity. (A cross section of the entire pickup assembly is included, showing mounting details of the disks and the drive motor; fabrication details are also given.) The distance between the measuring and rotating disks was 1.5 mm and between the measuring and fixed disks 5 mm. The effective area of the sensing disk was about 24 cm^2. The drive motor also drove a generator whose output served as the reference voltage for synchronous detection; during calibration, the rotating disk could be adjusted with respect to the rotor to give optimum signal-to-noise operation in the synchronous detector. The most interesting results were those obtained on 15 November 1961 with the stabilized rocket, which attained the highest altitude (430 km) and had the smallest measurement errors. The full scale of its field sensing equipment was ± 6 v x cm^{-1}, and the sensitivity threshold was 0.06 v x cm^{-1}. Preliminary tests had shown that the error of the device did not exceed 5% or 0.3 v x cm^{-1}.

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In addition to the field sensors, a current pickup was installed to register charges not intercepted by the sensors. The current sensitivity threshold was 10^{-9} amp x cm^{-2}, which was not actually reached during the 15 November flight. The pickups were placed at diametrically opposed pofnts on the cylindrical part of the rocket, pickup 1 facing north and pickup 2 facing south at approximately one-third the distance from the rocket nose. Solar rays fell on pickup 2 at an angle of 4°, while pickup 1 remained in the shade. Measurements showed that the rocket was negatively charged throughout the recorded period. At all altitudes, except for a small sector between 100 and 120 km, field intensity at the rocket surface remained almost constant at 1.5 to 1.6 v x cm^{-1}; within the same altitude range, the depth of the space charge varied within 1.2—5 cm at a temperature of 1000K, and within 1.7—7 cm at a temperature of 2000K. Results of measurements made for the nonstabilized rockets confirm those obtained for the stabilized rocket and suggest the existence of a significant electrostatic field in the regions studied. "The authors thank K. I. Gringaus for discussing the results of the investigation

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and V. G. Boroduline, V. I. Zhdanov, and V. A. Kraynev for their assistance in developing the equipment." Orig. art. has: 8 figures, 1 table, and 12 formulas.

ASSOCIATION: none

SUBMITTED: 24Aug62 DATE ACQ: 11Oct63 ENCL: 02

SUB CODE: GE, AS NO REF SOV: 010 OTHER: 000

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ACCESSION NR: AP4043691 S/0109/64/009/008/1536/1537

AUTHOR: Shvarts, Ya. M.

TITLE: Estimating the maximum signal-to-noise ratio attainable by the introduction of a feedback in electrostatic flux meters which operate in low-conductance media

SOURCE: Radiotekhnika i elektronika, v. 9, no. 8, 1964, 1536-1537

TOPIC TAGS: flux measurement, flux meter

ABSTRACT: The possibility of noise suppression, in an electrostatic fluxmeter oscillator (used for measuring the electrostatic field in the upper atmosphere), by introducing a feedback was explored in the author's earlier work (Radiotekh. i elektron., 1961, 6, 1, 153). In the present short article, formulas are developed and a typical numerical example is given evaluating the efficiency of the feedback. A rough estimate shows that the signal-to-noise ratio can be

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L 41838-65 EWT(1)/EEC(m)/EEC(k)-2/EWG(v)/FCC/EEC(t)/EWA(h) Pe-5/Pg-4/Pi-4/Pl-4/Po-4/Pq-4/Pae-2/Peb GW

ACCESSION NR: AP5005439 S/0293/65/003/001/0102/0110

53
51
B

AUTHOR: Gdalevich, G.L.; Imyanitov, I.M.; Shvarts, Ya. M.

TITLE: Electrostatic fluxmeter designed for measurements in the upper layers of the atmosphere

12 9M

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 1, 1965, 102-110

TOPIC TAGS: upper atmosphere, electrostatic fluxmeter, fluxmeter design, electrostatic field

25

ABSTRACT: An instrument for measuring the strength of the electrostatic field, designed for measurements in the upper layers of the atmosphere, is described. The block diagram and circuit diagram are given and the sensor is described in detail. The measurement range is ±2-3 $v \cdot cm^{-1}$ and the measurement error is $\pm 0.25\ v \cdot cm^{-1} \pm 0.25\ E_{meas}$. The block diagram is shown in Fig. 1 of the Enclosure. D1 and D2 are sensors whose principal purpose is the conversion of the measured voltage E of the electrostatic field into an alternating voltage V whose value is proportional to the strength of the electrostatic field and the phase is determined by field direction. This function is performed by the electrostatic oscillator E. The synchronous electromagnetic oscillator 0 of the sensor produces a reference voltage which is fed to the synchronous detector. The sensor contains a

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special electrode, the collector C, for measurement of the electrical current created by the flux of charged particles penetrating through the grid plates of the sensor. The measurement unit MU consists of a two-channel amplifier A, used for amplification of the voltage V, a matching device MD for connection with the telemetric system, two cathode followers F for measurement of the voltage created by the electrical current flowing to the collectors of the sensors and two synchronous detectors B for voltage rectification after amplification and determination of the sign of the field. The general appearance of the sensor is also shown. It consists of three main components: 1. a motor with brushes; 2. the sensor head; 3. an additional screen; 4. a lid. The principal working part of the head of the sensor is a measuring plate (Figure 2 of the Enclosure) consisting of a ring 2 to which is welded a wire grid 8. The grid is of a molybdenum-nickel alloy with grid openings 1 millimeter square; the wire diameter is approximately 0.06 mm. The measurement plate sits on an insulating ring 5. It has a leadout 7 to which is soldered a wire going to a plug. Inside the measurement plate there is a collector 4 insulated from it by a ring 3. The collector has a leadout 6 to which is soldered a wire which also runs to the plug. The instrument base is denoted 1. The motor-generator with brushes sits on the base. The circuit diagram is described in detail. "The authors wish to thank V. G. Borodulin and V.A. Kraynev who participated in the development of the instrument". Orig. art. has: 2 formulas and 7 figures.

Card 2/5 SUBMITTED: 26 Feb 64

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ACCESSION NR: AT5019959 UR/2531/65/000/177/0101/0104 23 21

AUTHOR: Shvarts, Ya. M. 55 B+1

TITLE: Use of synchronous motors in electrostatic fluxmeters

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 177, 1965. Atmosfernoye elektrichestvo (Atmospheric electricity), 101-104

TOPIC TAGS: meteorological instrument, synchronous motor, atmospheric electricity, electrostatic fluxmeter 55,12 55,12

ABSTRACT: Experience with the use of electrostatic fluxmeters has shown that it is desirable to use synchronous motors as the drive for the fluxmeter shielding plate in order to decrease electrical interference from the drive. The rotors of synchronous motors, especially hysteresis motors, tend to oscillate when there are variable loads. The author therefore has sought to take this factor into account by deriving computation formulas which give the spectral characteristics of the voltage produced by electrostatic fluxmeter generators for a given nonuniformity of rotation of the shielding plate. Also considered is the influence of the nonuniformity of rotation of the shielding plate on the operation of two independent pickups whose electrostatic generators are connected in a differential circuit.

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The pickups of the motors receive current from the same stable source. The difference between the working currents of the electrostatic generators of the two pickups ($i_1 - i_2$) whose measuring plates are exposed in electrostatic fields of strengths E_1 and E_2 is computed. It is assumed as an illustration that $E_1 = E_Q + E_E$, $E_2 = E_Q - E_E$. This gives

$$i_1 = \frac{E_1}{4\pi}\frac{dS_1}{dt}, \quad i_2 = \frac{E_2}{4\pi}\frac{dS_2}{dt}, \tag{1a}$$

(where S is the area of the measuring plate).

$$i_1 - i_2 = \frac{E_E}{4\pi}\frac{d(S_1+S_2)}{dt} + \frac{E_Q}{4\pi}\frac{d(S_1-S_2)}{dt} \tag{1b}$$

It is also assumed that

$$S_1 = \frac{S_0}{2}\left[1 + \sin\left(\omega_0 t + \frac{\Delta\omega_1}{\Omega_1}\sin\Omega_1 t + \varphi_1\right)\right],$$
$$S_2 = \frac{S_0}{2}\left[1 + \sin\left(\omega_0 t + \frac{\Delta\omega_2}{\Omega_2}\sin\Omega_2 t + \varphi_2\right)\right]. \tag{2}$$

Substituting S_1 and S_2 from (2) into (1b) and differentiating, taking into account

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$\Delta\omega_1 \ll \omega_0, \Delta\omega_2 \ll \omega_0,$ gives

$$i_1 - i_2 = \frac{E_E S_0 \omega_0}{4\pi} \cos\left(\frac{\Delta\omega_1}{2\Omega_1} \sin \Omega_1 t - \frac{\Delta\omega_2}{2\Omega_2} \sin \Omega_2 t + \frac{\varphi_1 - \varphi_2}{2}\right) \cos\left(\omega_0 t + \right.$$
$$\left. + \frac{\Delta\omega_1}{2\Omega_1} \sin \Omega_1 t + \frac{\Delta\omega_2}{2\Omega_2} \sin \Omega_2 t + \frac{\varphi_1 + \varphi_2}{2}\right) -$$
$$- \frac{E_Q S_0 \omega_0}{4\pi} \sin\left(\frac{\Delta\omega_1}{2\Omega_1} \sin \Omega_1 t - \frac{\Delta\omega_2}{2\Omega_2} \sin \Omega_2 t + \frac{\varphi_1 - \varphi_2}{2}\right) \sin\left(\omega_0 t + \right.$$
$$\left. + \frac{\Delta\omega_1}{2\Omega_1} \sin \Omega_1 t + \frac{\Delta\omega_2}{2\Omega_2} \sin \Omega_2 t + \frac{\varphi_1 + \varphi_2}{2}\right). \quad (3)$$

Expression (3) shows that for the efficient operation of the differential circuit (illustrated very sketchily in the text) it is necessary to satisfy the condition $\varphi_1 \cong \varphi_2$. Also, if it is taken into account that with prolonged operation a time will come when $\sin \Omega_1 t = 1$ and $\sin \Omega_2 (t) = -1$, the sum

$$\frac{\Delta\omega_1}{2\Omega_1} + \frac{\Delta\omega_2}{2\Omega_2}$$

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ACCESSION NR: AT5019959

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should tend to zero. For a series of motors with an identical load, operating under the same conditions, the sum

$$\left|\frac{\Delta\omega_1}{2\Omega_1}+\frac{\Delta\omega_2}{2\Omega_2}\right|$$

can be replaced by $\Delta\omega$ mean/Ω mean and finally the second condition for efficient operation of the differential circuit is expressed as

$$\left|\frac{\Delta\omega_{cp}}{\Omega_{cp}}\right| \to 0.$$

cp = mean

The values $\Delta\omega$ and Ω can be determined experimentally using the circuit briefly described in the paper. A number of special cases are noted. Orig. art. has: 12 formulas and 1 figure.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

55

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

NO REF SOV: 003 OTHER: 000

Card 4/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

L 2761-66 EWT(d)/FSS-2/EWT(1)/EEC(k)-2 GW/AST

ACCESSION NR: AP5021261

UR/0293/65/003/004/0660/0662
551.508.94:629.192.2:550.3

AUTHOR: Shvarts, Ya. M.; Markchev, N. T.; Petunin, A. N.; Rudakov, V. P.; Skvortsov, V. V.
44,55 44,55 44,55 44,55 44,55

59
B

TITLE: Testing of rocket electrostatic fluxmeter
12,44,55

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 4, 1965, 660-662

TOPIC TAGS: electric field, spaceborne ionization measurement, ionization detector, radiation detection
9M

ABSTRACT: Laboratory tests of an electrostatic fluxmeter of the rotary type with thin wire meshes and a synchronous detector are reported. The meter is designed for measuring the electric field intensity at the surface of a probing rocket and, indirectly, the external electric field of the upper atmosphere. The sensor was placed in a chamber under vacuum of 10^{-4}—10^{-5} mm Hg and subjected to bombardment of argon ions with energies of 1000 ev or less. Determinations were made of mesh permeability for streams of charged particles and of the effectiveness of the screen plates and synchronous detector as noise suppressors. The coefficient of optical transparency of the screen was 0.87, while the electrical permeability for an ion

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L 2761-66

ACCESSION NR: AP5021261

flux of 10^{-9}—10^{-7} amp/cm^2 was 0.82—0.86. The noise suppressing capabilities of the device are such that a noise current density of 1.1×10^{-7} amp/cm^2 and an electric field intensity of 8 v/cm are needed to make the signal to noise ratio 1. [BD]

Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 18Mar65 ENCL: 00 SUB CODE: EM, NP

NO REF SOV: 005 OTHER: 000 ATD PRESS: 4102

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

L 24644-66 EWT(1)/FCC GW

ACC NR: AT6014854 SOURCE CODE: UR/2531/66/000/188/0051/0054

22
B+1

AUTHOR: Shvarts, Ya. M.; Andreyeva, S. I.

ORG: none

TITLE: More on the relationship between the electric potential gradient and thunderstorm activity

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 188, 1966. Atmosfernoye elektrichestvo (Atmospheric electricity), 51-54

TOPIC TAGS: thunderstorm, atmospheric electricity, electric potential gradient

ABSTRACT: Whipple's method [Whipple, F. J. W. On the association of the diurnal variation of the electric potential gradient in fine weather with the distribution of thunderstorms over the globe. Quarterly J. of the Royal Meteorol. Society, vol. 55, N 1, 1929] of determining the surface area affected by thunderstorms in the region between 30° North and 30° South latitude is examined critically and compared with the findings of other investigators. An inverse relationship is found to exist in winter and summer months between the values of the electric field potential gradient in fair weather and the values of the areas affected by thunderstorms when computed by Whipple's method using Krumm's primary data [Krumm, H. C. Die weltzeitliche Tagesgang der Gewitterhaufigkeit. Zeitschrift fur Geophysik, vol. 28, N 2, 1962]. T. V. Lobodin [Geofizicheskiy byull. AN SSSR, no. 13, 34, 1963] also found that the

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

L 24644-66

ACC NR: AT6014854

yearly variation of the potential gradient was not in phase with the yearly value of the area affected by thunderstorms. It is therefore concluded that these discrepancies indicate that the number of days with thunderstorms multiplied by the corresponding surface area is not a good index to characterize the value of the electric potential gradient at the surface of the earth for long periods of time over large surface areas. Orig. art. has: 1 figure. [DM]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 008/ ATD PRESS: 4249

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

FRANKENBERG, B.Ye., professor; SHVARTS, Ya.Ye. (Odessa)

Isolated lymphogranulomatosis of the stomach. Klin.med., 33 no.11:77-80 N '55. (MIRA 9:7)

1. Iz vtoroy khirurgicheskoy kliniki (zav.-prof. B.Ye.Frankenberg) Odesskogo instituta usovershenstvovaniya vrachey imeni M.Gor'kogo
(HODGKIN'S DISEASE, stomach)
(STOMACH, neoplasms, Hodgkin's dis.)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ye.

Conference on physicochemical analysis. Vestis Latv ak no.5:181-182 '61.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1

SHVARTS, Ya.M.

Some causes of errors in working with an electrostatic fluxmeter in a plasma. Trudy GGO no.136:96-102 '62. (MIRA 15:12)
(Atmospheric electricity)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001550330003-1"