

QBCHBBI, R.Ye.

Character of internal motions of the interstellar gas. Izv. Vys.
astrofiz. observ. 31:170-179 1967. (1967 4 17:9)

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ACCESSION NR: AP4040840

S/0033/64/041/003/0425/0429

AUTHOR: Gershberg, R. Ye.; Shcheglov, P. V.

TITLE: Investigation of radial velocities and inner motions of diffuse nebulae by means of a Fabry-Perot etalon.

SOURCE: Astronomicheskiy zhurnal, v. 41, no. 3, 1964, 425-429

TOPIC TAGS: diffuse nebula, interferometer, radial velocity, uniform brightness, thermal emission, supergiant star, dilatation velocity, proper motion, shock wave

ABSTRACT: The diffuse nebulae NGC 7000, NGC 6618, NGC 6523, NGC 1976, NGC 7822, and IC 1318a have been measured by means of an interferometer equipped with a filter for the H α line. Radial velocities were determined in all nebulae. The northern part of the nebula NGC 7000 is an emitting source of uniform brightness; its emission is of thermal nature and may be considered as due to thermal motion of the H II zone. The diffuse nebula NGC 6618 consists of filaments which are believed to be the result of the explosion of a supergiant star. The dilatation velocity of the envelope of this nebula is theoretically

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ACCESSION NR: AP4040840

determined to be 100 km sec^{-1} , but has not been proved experimentally. Velocities of various parts of the nebula in radial directions were found to range from -40 to $+61 \text{ km sec}^{-1}$. The velocity of the central part was found to be $+27 \text{ km/sec}^{-1}$. Measurements in the central, bright part of the nebula NGC 6523 yielded positive and negative velocities. This nebula is considered to be a dilating gaseous formation with an expansion velocity of 25 km sec^{-1} . The proper motion of the nebula is $+8 \text{ km sec}^{-1}$. The measured velocities in the nebula NGC 1976 exceed the thermal type and may be explained by weak shock waves. Orig. art. has: 4 figures and 2 formulas.

ASSOCIATION: Gos. astronomicheskii in-t im. P. K. Shternberga (State Astronomical Institute); Krymskaya astrofizicheskaya observatoriya Akademii nauk SSSR (Crimean Astrophysical Observatory, Academy of Sciences SSSR)

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Card 2/2

СОВЕТСКОЕ, 1, 2.

А possible mention of "Krym" in "Krym" (M.A. 1940)
Астро. журн. 40, no. 4, 1965, p. 155.

1. Krymskaya ustroystvo: ustroystvo Krymskaya A.A. 1940.

BENSHBERG, S.

Powerful movement of the present. Sov.profsoiuzny 5 no.10:22-28
0 '57. (MIRA 10:9)

(Socialist competition)

GERSHBERG, S.

Feeling that one is master of the the country. Sov. profsoiuzy 6
no.2:27-32 F '58. (MIRA 11:3)
(Grade unions)

GERSHBERG, S.

The Soviet worker. Sov. profsoiuzy 6 no. 9:11-17 Ag '58. (MIRA 11:8)
(Labor and laboring classes)

GERSHBERG, S.

Industrialization of the construction industry and personnel problems ("Industrialization of the construction industry and its significance for the national economy" by I.Slepov. Reviewed by S.Gershberg). Sots.trud 4 no.6:151-153 Ja '59. (MIRA 12:8)
(Construction industry)
(Slepov, I.)

LEONT'YEV, Lev Abramovich; RABINOVICH, M., red.; GERSHBERG, S., red.;
KLIMOVA, T., tekhn.red.

[Elementary course in political economy] Nachal'nyi kurs politicheskoi ekonomii. Moskva, Gos.izd-vo polit.lit-ry, 1960.
535 p. (MIRA 13:11)

1.Chlen-korrespondent Akademii nauk SSSR (for Leont'yev).
(Economics)

GERSHBERG, S.

Communist labor enterprises, Sots. trud 6 no.5:11-19 My '61.
(MIRA 14:6)

(Socialist competition)
(Labor productivity)

GERSHBERG, S.

Movement of communist labor collectives and shock workers in the
U.S.S.R. Biul.nauch.inform.: trud i zar.plata 5 no.11:14-19 '62.
(MIRA 15:12)

(Socialist competition)

SERBINOVICH, N.K.; GERSHBERG, S.R., otv. red.; ALADOVA, Ye.I.,
tekh. red.

[In collaboration with science] V sodruzhestve s naukoj.
Moskva, Ugletekhizdat, 1954. 16 p. (MIRA 16:8)
(Donets Basin—Coal mines and mining)

KOLDOBSKIY, A.G.; MEDVEDEV, S.I.; PISKOPPEL', F.G.; YAKOBSON, M.G. Prinimali uchastiye: BERKHIN, I.B.; OSLIKOVSKAYA, Ye.S.; PEREKISLOVA, A.M.; LITVIN, V.M.; PARKHOMENKO, Ye.V.; STOTIK, A.M.; SHAPIRO, T.I.; STRUMILIN, S.G., akad., glav. red.; ALEKSENKO, G.V., red.; ANISIMOV, N.I., red.; VOLODARSKIY, L.M., red.; GERSHBENG, S.R., redaktor; red.; PETROV, A.I., red.; POSVIANSKIY, S.S., red.; BAZAROVA, G.V., kand. ekonom. nauk, starshiy nauchnyy red.; KISEL'MAN, S.M., starshiy nauchnyy red.; LIVANSKAYA, F.V., kand. ekonom. nauk, starshiy nauchnyy red.; GLAGOLEV, V.S., nauchnyy red.; NEDBAYEV, V.I., nauchnyy red.; TUMANOVA, N.L., nauchnyy red.; TOVMASYAN, M.E., red.; BLAGODARSKAYA, Ye.V., mladshiy red.; SHUSTROVA, V.M., mladshiy red.; ZENTSEL'SKAYA, Ch.A., tekhn. red.

[The economic life of the U.S.S.R.; chronicle of events and facts, 1917-1959] Ekonomicheskaya zhizn' SSSR; khronika sobytii i faktov 1917-1959. Glav. red. S.G.Strumilin. Chleny red. kollegii: Aleknenko i dr. Moskva, Gos. nauchn.izd-vo "Sovetskaya entsiklopediya," 1961. 779 p. (MIRA 14:10)

1. Tsentral'naya nauchnaya sel'skokhozyaystvennaya biblioteka Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. Lenina (for Litvin, Parkhomenko, STOTIK, Shapiro).

(Russia--Economic conditions)

YERIMOV, A.N., glav. red.; BACHURIN, A.V., red.; VOLODA-SKIY, L.M., red.; GERSHBERG, M.R., red.; GILZBURG, S.Z., red.; DUBLUKOV, G.F., red.; KINZHEB, D.M., red.; KLIMENTKO, K.I., red.; KOGANOV, F.V., red.; KOROL'KOV, A.N., red.; KAYLOV, P.N., red.; LIVANSKAYA, F.V., red.; LOKSHIN, E.Yu., red.; OSTROVITYANOV, K.V., red.; FOSVYANSKIY, S.S., red.; FANDERSKIY, G.A., red.; NAZUMOV, N.A., red.; NUNYANISEV, A.F., red.; TATUR, S.K., red.; SHUKHGAL'TEK, L.Ya., red.; BAZAROVA, G.V., starshiy nauchnyy red., kand. ekon. nauk; KISEL'MAN, S.M., starshiy nauchnyy red.; GLAGOLEV, V.S., nauchnyy red.; TUMANOVA, N.L., nauchnyy red.; BLACODARSKAYA, Ye.V., mlad. red.; SHUSTROVA, V.M., mladshiyy red.; GAYDUKOV, Yu.A., kand. ekon. nauk, red.; ZHARSKIY, M.I., red.; LOZOVCOY, Ya.D., red.; SERGEYEV, A.V., dots., red.; KHEYFETS, L.M., kand. tekhn. nauk, red.; LYUBOVICH, Yu.O., kand. ekon. nauk, red.; SYSOYEV, F.V., red.; KOSTI, S.D., tekhn. red.

[Economic encyclopedia; industry and construction] Ekonomicheskaia entsiklopediia; promyshlennost' i stroitel'stvo.
Chleny red. kollegii: A.V. Bachurin i dr. Moskva, Gos. nauchn. izd-vo "Sovetskaiia entsiklopediia." Vol. 1. A - B. 1962.
951 p. (MIRA 15:10)

(Russia--Industries--Dictionaries)
(Construction industry--Dictionaries)

GERSHBERG, V.S.

Determination of the vertical distribution of average current velocities and method of measuring the discharge of mountain rivers under conditions of an open channel. Trudy GGI no.90:46-63 '60.
(MIRA 14:1)

(Soviet Central Asia—Stream measurements)

GERSHBERG, V.S.

Practice of integral measuring of the discharges of the Syr
Darya River. Trudy GGI no.98:47-55 '62. (MIRA 15:12)
(Syr Darya—Stream measurements) (Integrals)

Gen. 1940, Vol. 1.

From experiments on measuring absorption in a channel channel.
Nuclear. 4. general. no. 90/0-48 S. 195. (MIRA 18:8)

1. General theory of the optical properties of the material.

MATVEYEV, M.A.; GERSHCHENKO, G.V.

Increasing the strength of quartz-cement pulping rolls. Silikaty
no.1:82-87 '59. (MIRA 13:2)
(Woodpulp industry--Equipment and supplies)

GERSHBERG, R.Ye.

Fine filamentary structure and polarization of reflection nebulae.
Izv.Krym.astrofiz.obser. 23 21-30 '60. (MIRA 13:10)
(Nebulae)

GERSHBERT, G.A., a.k.a. techn. work; "MIRAGE", Y.V., info.

polymer-cement protective coatings of the inner surface of
cast iron water pipes. Voz. I san. tekhn. no. 2824-26 F '64
(MIRA 1842)

GRISHIN, P.A.

The development of wire broadcasting systems is a problem of utmost political importance. Vest. aviatsi 2, no. 5:20-21
My '64. (MIRA 17, 6)

1. Metal'nik Stavropol'skoy krajeyevy niuktasi radiotransiya-
tsionnoy seti.

GERSHINBEYN, Semen

Steps toward mastery. Sov.foto 20 no.8:11-13 Ag '60.
(MIRA 13:8)

1. Redaktor Fotokhroniki Telegrafnogo agentstva Ukrainskoy Sovetskoy
Sotsialisticheskoy Respubliki.
(News photographers)

I. 22246-66 EWP(j)/EWT(m) IJP(c) RM

ACC NR: AP6006493

SOURCE CODE: UR/0138/65/000/010/0027/0029

AUTHOR: Peschanskaya, R. Ya.; Eydel'mant, N. L.; Smolyanitskiy, V. Z.; Gershenovich, A. I.; Stefanovich, V. V.; Gal'braykh, I. Ye.; Alekseyeva, N. A.; Tikhonova, Zh. I.

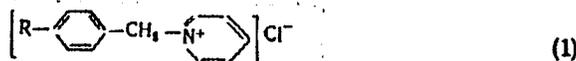
ORG: Scientific-Research Institute of Rubber and Latex Products (Nauchno-Issledovatel'skiy institut rezinovykh i lateksnykh izdeliy); "Red Triangle" Plant (zavod "Krasnyy treugol'nik")

TITLE: The use of p-alkylbenzylpyridinium chloride as a vulcanization catalyst for rubber mixtures

SOURCE: Kauchuk i rezina, no. 10, 1965, 27-29

TOPIC TAGS: vulcanization, catalyst, butadiene styrene rubber, synthetic rubber, rubber chemical

ABSTRACT: A cationactive pyridinium compound, p-alkylbenzylpyridinium chloride (katapin):



where R is an aliphatic radical containing 12-14 carbon atoms, was studied as a vulcanization catalyst. Katapin is a water-soluble dark-brown paste, now being produced on a semi-industrial basis. When large-scale industrial production is organized, katapin production costs will be close to those of captax, the least expensive vulcanization catalyst. Katapin is found to

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UDC: 678.044.004.14

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ACC NR: AP6006493

have medium-strength activity as a vulcanization catalyst. Katapin makes possible the production of NK-base vulcanizates with higher strength properties than that produced by means of the standard catalysts: captax, altax, and DFG. In butadiene-styrene rubber mixtures, katapin comes close in vulcanization activity to that of DFG. Katapin may be used as an independent agent, as well as in combinations with captax, altax, and thiuram. Orig. art. has: 4 tables.

SUB CODE: 07,11 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 004

Card 2/2 nst

burgovskii, V. V., "Investigation of the Production of Laser Systems from
Lightning" A.I. Gerasimov, H. P. Yezhlyanov, G. V. Kivayev, A. I. Romanov,
and Ye. S. Fomenov were reported to be associates of this laboratory.
(Elektrichestvo, No. 2, 1969) Central Scientific Research Institute of Atomic
Laboratory (TsNII), Ministry of Defense.

SO: 0-27 01, 14 Sept. 1963)

GERSHENGORN, A. I.

Jan 53

USSR/Electricity - Transmission Lines

"Transposition of Long Electric Power Transmission Lines," Engrs. A. I. Gershengorn and A. N. Sherentsis, Teleploelektroproyekt; and N. A. Mel'nikov, Cnad Tech Sci, All-Union Correspondence Power Eng Inst

Elektrichestvo, No 1, pp 16-22

Discusses on basis of established forms the problem of increasing distance between transpositions of 110-220 kv and 400 kv power lines with view to reducing construction costs and increasing reliability of power lines planned for 5th five-Year Plan; Proves that acceptable distance between transpositions is determined by acceptable values of current and voltage unbalance in electrical system and that interference to communications lines is practically independent of this distance. Submitted 26 Sep 52.

253T16

GERSHENGORN, A.I., inzhener.

Examining the corona on an experimental 500 kv station. Elektrichestvo
no.6:74-77 Je '53. (MLRA 6:7)
(Electric substations) (Electric discharges)

GERSHENGORN, A.I., inzhener.

Development of a 380 kv system in Sweden. Elektrichestvo no.8:82-84 Ag '53.
(MLRA 6:8)

(Sweden--Electric networks) (Electric networks--Sweden)

GERSHENGORN, A.I., inzhener.

Modern tendencies in constructing transformers for very high voltages.
Elektrichestvo no.12:80-81 D '53. (MLRA 6:11)
(Electric transformers)

GERSHENGORN, A.I., inzhener.

Damping vibration by means of a twisting damper. Elektrichestvo
no.1:86-88 Ja '54. (MLRA 7:2)
(Electric lines--Overhead)

GZRSHEGORN, A.I., inzhener; SHRENTSIS, A.N., inzhener.

Transposition of an electric transmission line. Elektrichestvo no.4:
87-88 Ap '54. (MIRA 7:5)

(Electric lines--Overhead)

GERSHENGORN, A.I., inzhener.

Vibration of cables on electric transmission lines and measures of
protection against it. Elektrichestvo no.4:88-89 Ap '54. (MLRA 7:5)
(Electric lines--Overhead)

GERSHENGORN, A.I., inzhener.

Transformers with impregnated paper insulation and with small volume
of oil. (G. Scarpa in *Elektrotecnica*, T.38, p.104, no.3, 1951).
Elektrichestvo no.5:90-92 My '54. (MLRA 7:6)
(Electric transformers)

GERSHENGORN, A.I., inzhener.

Submarining cable under the British Channel (From "The Engineer," v.
194, no. 5055, p. 792, 1952, J.H.M. Sykes) Elektrichestvo no.6:
89-90 Je '54. (MIRA 7:7)
(Cables, Submarine)

AID P - 1601

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 10/27

Authors : Gershengorn, A. I., Eng. and Mel'nikov, N. A., Kand. of
Tech. Sci.

Title : Transpositions in 35 to 220 kv electric networks

Periodical : Elektrichestvo, 3, 49-54, Mr 1955

Abstract : The authors investigate operational conditions of
electric transmission lines with long transposition
intervals in complex electric networks. On the basis
of Soviet operational experience with transposition,
they present several conclusions of practical signifi-
cance. They introduce a method of determining un-
symmetrical currents and voltages in complex networks.
Five diagrams, 5 tables, 6 Russian references
(1944-1953)

AID P - 1601

Elektrichestvo, 3, 49-54, Mr 1955

Card 2/2 Pub. 27 - 10/27

Institution: Teploelektroproyekt (Trust for Planning and Investigation
of Thermal and Electric Power Stations, Networks,
and Substations, and All-Union Power Engineering
(Correspondence Institute)

Submitted : Je 25, 1954

AID P - 1612

Subject : USSR/Electricity

Card 1/1 Pub.27 - 21/27

Author : Gershengorn, A. I., Eng.

Title : Improvement of radio reception in the vicinity of electric power transmission lines

Periodical : Elektrichestvo, 3, 79-80, Mr 1955

Abstract : The author summarizes this problem as presented by three articles describing the Swedish 400-kv power transmission. According to these articles, the 400-kv power lines have been so designed as to render them superior from the point of view of avoiding radio disturbances to the earlier Swedish 230-kv-lines. Two diagrams, 3 references (1953-1954)

Institution: None

Submitted : No date

AID P - 2359

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 23/30

Authors : Vol'kenau, V. A. and Gershengorn, A. I., Engs.

Title : Certain characteristics of super-high voltage electric power transmission lines (Review of foreign periodicals)

Periodical : Elektrichestvo, 5, 82-83, My 1955

Abstract : The authors summarize an article by R. G. Wolff in Modern Power Engineering, v.47, No.2, 1953. Three tables, 1 reference.

Institution: None

Submitted : No date

Subject : USSR/Electricity AID P - 2832
Card 1/1 Pub. 27 - 21/30
Author : Gershengorn, A. I., Eng.
Title : Protection of communication lines from the influence
of high voltage lines in Sweden (Review of foreign
periodicals)
Periodical : Elektrichestvo, 6, 79-80, Je 1955
Abstract : The author summarizes a report on that subject
presented at the 1954 meeting of the International
Conference of the Principal High Tension Electrical
Systems.
Institution : None
Submitted : No date

AID P - 3039

Subject : USSR/Electricity
Card 1/1 Pub. 27 - 26/33
Author : Gershengorn, A. I., Eng.
Title : Testing turbogenerators with reactive load (Review of foreign periodicals)
Periodical : Elektrichestvo, 7, 145-146, J1 1955
Abstract : The author summarizes data from four American and British periodicals concerning the above problem. One diagram, 4 references (1953-1954).
Institution : None
Submitted : No date

Subject : USSR/Electricity AID P - 2867

Card 1/1 Pub. 28 - 7/7

Author : Geshengorn, A. I.

Title : Series capacitors for high-voltage distribution networks (Foreign Engineering)

Periodical : Energ. byul. 9, 29-32, S 1955

Abstract : The original article by S. Smedsfelt and P. Hjertberg, was published in the Allmänna Svenska Elektriska Aktiebolaget (ASEA) Journal, vol. 27, No. 9, 1954. It is summarized in translation, and accompanied by only 6 sketches by the author. Reference is also made to R. E. Marbury's article on "Use of Capacitors in Industrial Plants", published in the Westinghouse Engineer", vol. 8, No. 3, 1948.

Institution : None

Submitted : No date

AID P - 3616

Subject : USSR/Electricity

Card 1/1 Pub. 28 - 7/7

Author : Gershengorn, A. I.

Title : ~~Use of static capacitors in the U.S.A. (Foreign technique)~~
Use of static capacitors in the U.S.A. (Foreign technique)

Periodical : Energ. byul., 10, 29-32, 1955

Abstract : The author presents excerpts and a condensation of an article "Shunt Capacitors in Large Transmission Networks", by E. C. Starr and E. J. Harrington, published in Transactions of the American Institute of Electric Engineers, Vol. 72, 1953, part III-B, pp. 1129-1140. Pictures.

Institution : None

Submitted : No date

AID P - 4107

Subject : USSR/Electricity
Card 1/1 Pub. 27 - 18/24
Author : Gershengorn, A. I., Eng.
Title : Performance of turbogenerators in conditions of under-
excitation (Review of foreign periodicals).
Periodical : Elektrichestvo, 11, 82-83, N 1955
Abstract : The author summarizes two articles on the subject of
under-excitation of turbogenerators from the Transac-
tions of the AIEE. Two diagrams, 2 US references,
1953-1954.
Institution : None
Submitted : No date

GERSHENGORN, A.I., inzhener.

~~Phase reclosing of high-voltage lines.~~

Phase reclosing of high-voltage lines. Elektrichestvo no.1:85-86
Ja '56. (MLRA 9:3)

(Electric lines)

GERSHENGORN, A.I.

Hermetically sealed transformers (Engineering, 179 no.4677 1955)
Energ.biul.no.4:32 Ap '56. (MIRA 9:7)
(Electric transformers)

~~GERSHENGORN, A.I.~~

Use of aluminum in power engineering. Energ. biul. no.6:30-31
Je '56. (MLRA 9:8)
(Aluminum)(Electric engineering--Materials)

GERSHENGORN, A.I., inzhener.

Plants for testing high-voltage circuit breakers. Elektrichestvo
no.6:84-86 Je '56. (MIRA 9:9)
(Electric circuit breakers--Testing)

GERSHENGORN, A.I.

Electric equipment of sulfuric acid plants. Abstracted from "Electr. journal," 155 no.23 1955. Energ.biul.no.8:29-30 Ag '56. (MLBA 10:2)
(Great Britain--Sulfuric acid industry)
(Electric apparatus and appliances)

GERSHENGORN, A.I.

Lighting a modern oil refinery. Energ. biul. no.9:29-31 5 '56.
(MLRA 9:11)

(United States--Electric lighting)

GERSHENGORN, A.I.

A new insulating material for electric motors, *Engng. bul. no.9:*
31-32 '56. (MLRA 9:11)
(Electric insulators and insulation)
(Ethylene)

GERSHENGORN, A. I.

Synchronous-induction squirrel-cage motor. Energ. bul. no.11:31-32
N '56. (MIRA 9:12)
(United States--Electric motors, Induction)

GERSHENGORN, A.I.

Damage to electric equipment in a test atomic explosion. Energ.
biul. no.12:29-30 D '56. (MIRA 10:1)
(United States---Atomic bomb---Testing) (United States---Electric ap-
paratus and appliances---Testing)

GERSHENGORN, A.I.

Vacuum switches for high currents. Energ. biul. no.1:31-32 Ja '57.
(MIRA 10:1)

(Electric switchgear)

GERSHENGORN, A.I.

Semiconductor resistance thermometer. Energ. biul. no. 1:32 Ja '57.
(MIRA 10:1)

(Thermometers)

GERSHENGORN, A.I.

Thirty-three kv. substation distribution apparatus. Energ. biul.
no. 2:32 F '57. (NLRA 10:3)
(Great Britain..Electric power distribution)

GERSHENGORN, A.I.

Electric power supply for a coke by-products plant. Energ. biul. no.3:
30-31 Mr '57. (MIRA 10:4)
(Great Britain--Coke industry) (Electric power)

GERSHENGORN, A.I.

Selecting types of motors for use where there is danger of fire
or explosions. Energ, biul. no.3:31-32 Mr '57. (MLRA 10:4)
(United States--Electric motors)

GERSHENGORI, A. I., inzh.

High voltage systems in Japan. Energokhoz. za rub. no. 4:17-20

Jl-Ag '57. (MIRA 12:11)

(Japan--Electric power distribution)

GERSHENGORN, A.I.

Electric equipment for deep well pumping installations in the U.S.A.
Energ. biul. no.5:30-32 My '57. (MLRA 10:6)
(United States--Oil well pumps)

GERSHENGORN, A.I.

Insulators made of hardened glass for high-tension lines. Energ. biul.
no.5:32 My '57. (MLRA 10:6)
(Europe, Western--Electric insulators and insulation)

GERSHENGORN, A.I., inzh.

British high-voltage direct-current research laboratory (from
"Direct Current," } no.2 1956). Elek.sta. supplement no.6:44-45
N-D '57. (MIRA 11:2)
(Great Britain--Electric laboratories)

GERSHENGORN, A.I., inzhener.

Systems on 330 kv in the United States. Elektrichestvo no.10:
81-84 0 '57. (MLEA 10:9)

(United States--Electric networks)

GERSHENGORN, A.I., inzh.; ROKTOYAN, S.S., inzh.

Prospective uses of d.c. electric power distribution in the Soviet
Union. Elektrichestvo no.12:74-76 D '57. (MIRA 10:12)

1. Teploelektroproyekt.
(Electric power distribution)

MEL'NIKOV, N.A., kand.tekhn.nauk; GERSHENGORN, A.I., inzh.; SHERENTSIS,
A.N., inzh.

Ground wires for long transmission lines. Elektrichestvo no.1:
25-30 Ja '58. (MIRA 11:2)

1. Vsesoyuznyy zaochnyy energeticheskiy institut (for Mel'nikov).
2. Teploelektroproyekt (for Gershengorn, Sherentsis).
(Electric lines--Overhead)

AUTHOR: Gershengorn, A. I., Engineer. 105-58-5-2/28
Rokotyan, S. S., Engineer, Sandler, P. Ye., Engineer

TITLE: Comparative Economic Evaluation of A. C. and D. C.
Long-Distance Transmission (Sraznitel'naya
ekonomicheskaya otsenka dlinnykh peredach postoyannogo
i peremennogo toka)

PERIODICAL: Elektrichestvo, 1958, Nr 5, pp. 8-12 (USSR)

ABSTRACT: For the purpose of determining the limits of economy in
using d. c. and a. c. long-distance transmission, the
Department for Long-Distance Transmission of the
Teploelektroproyekt performed comparative calculations
of equivalent d. c. and a. c. transmissions. In this
connection the following kinds of transmission were
investigated: 1) intermediate-system transmissions
without intermediate stations. 2) Transmissions without
intermediate outputs which connect the great hydroelectric
plants with the systems. 3) Transmissions with intermediate
output, which connect great hydroelectric plants with the
power supply systems. It was assumed that the circuits lead

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Comparative economic evaluation of A. C. and D. C.
Long-Distance Transmission

105-58-5-2/28

to regions, which correspond to the second glazed-frost region. The wind velocity for the calculation amounted to 30 m/sec. Based on the investigations the following was determined: 1) The circuit length at which the transmission indices of d. c. and a. c. become equal, depend on the power, the quantity of the transmitted energy, the voltage, the transmission type, and the presence of intermediate stations. 2) At a small quantity of the transmitted power and energy (500 MW, 2.5 milliard kw hours/year), the limit of economy for the use of d. c. and a. c. lies within the range of 900 - 1000 km. 3) Equal capital investments for d. c. - and a. c. transmissions are quoted at circuit lengths (without intermediate plants) of not less than 700 - 900 km. An increase of the transmitted power and energy hardly influences the position of the limit of economy with respect to capital investments. 4) The limit of economy with respect to the energy transmission costs shifts in the direction of the greater distances compared to the limit determined according to capital investments. This displacement amounts

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Comparative Economic Evaluation of A. C. and D. C. Long-Distance Transmission 105-58-5-2/28

to 100 - 400 km, the lower numbers being valid for the transmission of a greater energy. 5) The resulting limit of economy at 750 MW/circuit and more, without intermediate plants, lies at 850 - 1000 km. 6) In the case of an energy transmission from a great hydroelectric plant and a combination of the transformer substation with the electric devices of a hydroelectric plant the limit of economy displaces itself, compared to the boundary for an intermediate-system-transmission with equal limit transformer substations, by about 100 km in the direction of the smaller distances. 7) In varying the costs for the transmitted energy the limit of economy displaces itself by 100 - 150 km. 8) In transmissions with intermediate plants 250 - 300 km each. the limit of economy lies at 1300 - 1500 km, which essentially extends the domain of using a. c. There are 5 figures and 6 tables.

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Comparative Economic Evaluation of A. C. and D. C. Long-Distance Transmission 105-58-5-2/28

ASSOCIATION: Teploelektroproyekt

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1. Electrical networks--Effectiveness 2. Direct current--Transmission 3. Alternating current--Transmission

Card 4/4

GERSHENGORN, A.I., inzh.

Opening of the first 380 kv. line in the Federal Republic of
Germany. Energokhoz. za rub. no.5:24-29 S-O '58.

(MIRA 11:12)

(Germany, West--Electric power distribution--High tension)

GERSHENGORN, A.I., inzh.

Development of 330-345 kv. power lines. Energokhoz. za rub.
no.1:28-35 Ja-F '59. (MIRA 12:4)
(Electric power distribution--High tension)

GERSHENGORN, A.I., inzh.

Project for 380 kv. power transmission in Argentina (from
"Electrical World," no.21, 1958). Energokhoz. za rub. no.2:
44-45 Mr-Ap '59. (MIRA 12:5)
(Argentina--Electric power distribution--High tension)

GERSHENGORN, A.I., inzh.

Investigating corona and radio interference on an experimental line
with bundled conductors. Energokhoz. za rub. no.5:24-28 S-0 '59.
(MIRA 13:2)

(United States--Electric lines)

GERSHENGORN, A.I., inzh.

Enclosed 150 kv. distributing equipment. Energokhoz. za rub. no.6:
45-46 N-D '59. (MIRA 13:3)
(Netherlands--Electric power distribution)

GERSHENGORN, A.I., red.; OZERSKIY, V.A., red.; LARIONOV, G.Ye.,
tekhn.red.

[Correction and control of reactive power in electric power
systems; collection of translated articles] Kompensatsia i
regulirovanie reaktivnoi moshchnosti v energosistemakh;
sbornik perevodnykh statei por red. A.I.Gershengorna. Moskva,
Gos.energ.izd-vo, 1960. 175 p. (MIRA 13:12)
(United States--Electric power)

GERSHENGORN, A.I., inzh.

Guaranteeing reactive power and voltage adjustment in one
U.S. system. Energokhoz.za rub. no.1:31-34 Ja-P '60.

(MIRA 13:5)

(California--Electric power production)

GERSHENGORN, A.I., inzh.

Economic comparisons of d.c. and a.c. transmission in the U.S.
Energokhoz. za rub. no.2;26-32 Mr-Ap '60. MIRA 13:6)
(United States--Electric power distribution)

GERSHTEIN, A.I., inzh.

600 kv. experimental line in Canada. Energokhoz.za rub. no.3:45-46
My-Je '60. (MIRA 13:7)
(Canada--Electric lines--Overhead)

DENISENKO, G.I., kand. tekhn. nauk (L'vov); POSPELOV, G.Ye., doktor
tekhn. nauk, prof. (Minsk); GERSHENGORN, A.I., inzh. (Moskva)

Transmission of electric power at great distances. Prospects
for stepping-up the voltages of overhead power transmission
lines. Elektrichestvo no.2:85-89 F '64. (MIRA 17:3)

GERSHENGORN, A.I., inzh. (Moskva); LYSKOV, Yu.I., inzh. (Moskva)

Economical current load limits for 110-500 kv. lines with
standardized towers. Elektrichestvo no.4:90-91 Ap '65.
(MIRA 18:5)

WASH DC, D.C.

Hand notes in a closed book. Title: OWI no. 17:100-152 '5'.

(Hand)

(Handwritten)

(HR. 10:7)

GERSHENGORN, G.I.

Some characteristics of unsteady wind waves in the deep ocean. Trudy
Dal'nevost.NIGMI no.7:3-9 '59. (MIRA 13:6)
(Waves)

GERSHENGORN, G.I.; Primal uchastiye: LINEYKIN, P.S.

Unsteady elevation of the water level by wind in a closed basin.
Trudy Dal'nevost. NIIMI no.13:3-40 '60. (MIRA 14:7)
(hydrology)

GERSHENGORN, G.I.

Wind currents in a shallow sea. Trudy Dal'nevost. ^{RUSSIA}
no.13:41-51 '60. (MIRA 14:7)

(Ocean currents)

DUSHIN, B.M. [Dushyn, B.M.]; GERSHEKORIN, M.S.; UMANSKIY, O.A. [Umans'kiy,
O.A.]; DERBAREMDIKER, M.R., kand.tekhn.nauk

Refining of Russian leather and large hides with deep grain de-
fects. Leh.prom. no.3:15-16 J1-S '63. (MIRA 16:11)

1. Kiyevskiy kozhevennyy kombinat No.6.

DUSHIN, B.M.; LITVINOV, M.A.; GASHENGORN, M.S.; DERBAREMDIKER, M.L.

Refining of leather. Kozh.-obuv.prom. 5 no.5:33-34 My '63.
(MIRA 16:5)

(Leather)

DUSHIN, B.M. [Dushyn, B.M.]; LITVINOV, M.R., [Lytvynov, M.R.];
DERBAREMDIKER, M.L., kand. tekhn. nauk; GERSHENGORN, M.S.
[Hersenhorn, M.S.]

Continuous processing of semifinished products in the Kiev
Leather Combine. Leh. prom. no.2:35-37 Ap-Je '63.

(MIRA 16:7)

(Kiev--Leather industry)
(Assembly-line methods)

LOVCHIK, B.M. (Lushyev, B.M.), GEIGHE NGORN, M.S. (Harabestov, G. S.);
SEPPENBROKER, M.I.; UMANSKII, A.A. (Umans'kii, A.A.); etc., M.P.

Drying and processing of leather for shoe uppers. Latvian.
no. 175-48 Ja-Mr '64. (1964 1961)

GERSHENOVICH, A.I.; KHOMYAKOV, D.G.; BALAKIREV, Ye.S.

Acid chlorides of kerosine-fraction sulfonates. Patent U.S.S.R. 78,377,
Dec.31, 1949.
(CA 47 no.19:10215 '53)

GERSHENOVICH, A.I.; KHOMYAKOV, D.G.; BALAKIREV, Ye.S.

Saponification of acid chloride sulfonates of kerosine fractions. Patent
U.S.S.R. 78,378, Dec.31, 1949.
(CA 47 no.19:10215 '53)

GERSHENOVICH, A. I.

GERSHENOVICH, A. I. - "Gefochlorination of Hydrocarbons." Sub 29
Feb 52, Moscow Order of Lenin State University M. V. Lomonosov.
(Dissertation for the Degree of Candidate in Chemical Sciences).

SO: Vechernaya Moskva January-December 1952

GERSHON WILK, ...

(2)

Chemical Abst.
 Vol. 48 No. 5
 Mar. 10, 1954
 Organic Chemistry

Chlorosulfonation. I. Thermal decomposition of the
 chlorosulfonates. A new method of determination
 of the position of the sulfo group. A. P. Terent'ev and
 A. I. Gerdeyovskiy, *Zhur. Obshch. Khim.*, 23, 267 (1953)
 Thermal decomposition of RSO_2Cl yields 73-81% RCl with
 the Cl taking the place of the SO_2Cl group, thus affording a
 method for determining the orientation. Me_2CHCl (1.0 g.) in 50
 ml. Et_2O heated 40 hrs. with 250 g. KCN_2S gave 83.3% 2-
isobutyl propyl, b. 48-50°, d_4^{20} 0.9781. This (165 g.) in
 1.5 l. H_2O was treated with Cl_2 below 20° with good stirring
 until excess Cl_2 became evident (yellow color) and this excess
 then removed by blowing with N_2 ; extd. with Et_2O and washing
 with H_2O there was given 83.2% $\text{Me}_2\text{CHSO}_2\text{Cl}$ (I), b.
 71-3°, d_4^{20} 1.2645, n_D^{20} 1.4192 g.) in 50 ml. Et_2O chilled to -40°
 added to 11 g. liquid NH_3 yielded 91.2% of the correspond-
 ing amide, m. 66° (from Et_2O -petr. ether). Similarly BuCl
 gave 75.8% *tert*- BuSCN , b. 182-3°, then 90% BuSO_2Cl (II), b.
 75-6°, d_4^{20} 1.2078; then 82.4% amide, m. 44-4.5°. *iso*-
 BuBr similarly gave after 16 hrs. refluxing 73.2% *iso*- BuSCN ,
 b. 57-8.5°, which gave 84% *iso*- BuSO_2Cl (III), b. 77-8°, d_4^{20}
 1.2014; its amide is a liquid, but the *N-cyclohexyl* amide,
 prepd. by refluxing III with the amine in Et_2O , m. 50-7°. $\text{PhCH}_2\text{CH}_2\text{Cl}$
 and KCN_2S gave after 40 hrs. 61.4% $\text{PhCH}_2\text{CH}_2\text{SCN}$,
 b. 116-18°, d_4^{20} 1.2158, which yielded 51%
 $\text{PhCH}_2\text{CH}_2\text{SO}_2\text{Cl}$ (IV), m. 21-2°; the amide (65.3%), m.
 129-9.5° (from H_2O). II (26 g.) treated with a Cl_2SO_2
 mixt. under ultraviolet light 10 hrs. at 40° gave 174 g.
 products which yielded 119.4 g. distillate, b. 60-80°, and
 50.3 g. residue. The latter extd. with hot C_6H_6 , decolorized,
 and treated with CCl_4 gave 41.2 g. $(\text{C}_6\text{H}_5\text{CH}_2\text{SO}_2\text{Cl})_2$ (V), m.
 82.5-3.0°; the filtrate, dild. with petr. ether, gave 6.3 g.
 $\text{Me}_2\text{C}(\text{SO}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{SO}_2\text{Cl})$ (VI), m. 40-1°. Heating
 25.28 g. 11.5 hrs. to 200-20° gave a distillate contg. 10.5 g.
 iso-PrCl , b. 36-7°, whose structure was confirmed by repeat-

(over)

ing the above synthesis of I from it. Similarly, II gave 87.9% BuCl, III 79.5% iso-BuCl, V 79% $(CH_2CH_2Cl)_2$, and VI 72.5% $MeCHClCH_2CH_2Cl$, b. 130-2°, d_4^{20} 1.0840, and IV 59.4% $PhCH_2CH_2Cl$. The structures of the products were confirmed as stated above. II. Orienting effects of the chlorosulfonyl and chloro groups in photochemical chlorosulfonation. *Ibid.* 208-12.—The Cl and SO_2Cl residues already present in a mol. serve to repel the attack of a newly entering SO_2Cl group in photochem. chlorosulfonation to distant points in the mol., as shown by the following examples. Me_2CHSO_2Cl for these reasons is unattacked under normal conditions. The reaction was run in a tube reactor irradiated with a Hg-vapor lamp, a rough diagram of which is given. Passage of Cl (at 1.1 ml./sec.) and SO_2 (2.2 ml./sec.) into 134 g. BuCl at 40° over 7 hrs. gave a 50.4-g. wt. increase; on distn. 22.27 g. BuCl was recovered, along with 9.6 g. polychlorides and 88.44 g. $C_4H_9O_2SCH_2$, b_p 105-10°. Thermal decompn. of the mixed disulfonyl chlorides gave mixed dichlorobutanes, which, after treatment of KCNS, followed by chlorination (cf. preceding abstr.) gave 3.45 g. $(CH_2CH_2SO_2Cl)_2$, m. 83-4°, while the $C_4H_9CCl_2$ filtrate on evapn. gave 10.38 g. $MeCH(SO_2Cl)CH_2CH_2SO_2Cl$, m. 40-1°. The ratio of the 1,4- and 1,3-isomers was approx. 1:3. Similar treatment of Me_2CHSO_2Cl over 6 hrs. gave unchanged material only. Passage of Cl and SO_2 as above into 126 g. BuSO₂Cl 10 hrs. gave, in addn. to 31.4 g. unchanged material, 79.5 g. mixed $ClCH_2CH_2CH_2CH_2SO_2Cl$ (I) and $MeCHClCH_2CH_2SO_2Cl$ (II), b_p 107-11°. Thermal decompn. of 10.4 g. of this mixt. gave 4.70 g. mixed dichlorobutanes, which, treated with KCNS, followed by chlorination, gave 0.22 g. $(CH_2CH_2SO_2Cl)_2$ (III) and 3.38 g. $MeCH(SO_2Cl)CH_2CH_2SO_2Cl$ (IV). The residue after distn of I and II (50.8 g.) extd. with C_6H_6 , decolorized, and mixed with CCl_4 gave 31.6 g. III and 15.3 g. IV. Chlorination of 100 g. BuSO₂Cl over 8 hrs. at 30-3° with Hg-lamp irradiation gave 81.4 g. $C_4H_9O_2SCH_2$, b_p 100-12°; this mixt. (20 g.) was thermally decompd. to 9.2 g. mixed dichlorobutanes, which with KCNS and Cl as above gave 2.7 g. I and 7.8 g. II.

G. M. Kosolapoff

TRIDENTINO, A. P.; GIACOMINI, G. I.

Photochemistry

Sulfoclorination. Part 2. Orientation effect of the SO_2Cl and Cl groups in photochemical sulfoclorination. *Ann. N. Y. Acad. Sci.*, No. 3, 1968.

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GERSHENOV, H. A. I.

Chlorosulfonation. III. Orienting effect of the phenyl radical in the reaction of photochemical chlorosulfonation of benzene homologs. A. P. Geršenov and H. A. Gershonov. *Mosk. univ. khim. fiz.* 1961, 1, 1001. *Chem. Abstr.* 56:1001 (1962); *J.S.S.R.* 1, 635-8 (1959); *cf. C.A.* 43, 2508i. — In photochemical chlorosulfonation of benzene homologs, the Ph radical is not affected, but hinders the entry of SO_2Cl at the 1st C atom of the sidechain. Passage of a mixt. of Cl and SO_2 into 173.4 g. MePh under ultraviolet illumination, 6 hrs. at 30-32° gave a product free of S, and yields: 157 g. PhCH_2Cl and 23.9 g. PhCHCl_2 . With BzPh (175.7 g.) a similar reaction gave 153 g. (66.14%) PhCHClMe , 18 g. PhCMe_2Cl , and 1.67% $\text{PhCCl}_2\text{CH}_2\text{Cl}$, as well as 7.2% $\text{PhCH}_2\text{CH}_2\text{SO}_2\text{Cl}$. Similar reaction of PhCMe, b. 157-8°, gave 49% $\text{PhCMe}_2\text{CH}_2\text{SO}_2\text{Cl}$, b. 135-7°; amide, m. 71-4° (from H_2O). G. M. Kosoloff

SECRET
GERSHENOVICH, A.I.

Manufacture of alkylbenzene sulfonates (sulfonol). Khim. i tekhn.
topl. i masel no.8:14-20 Ag '57. (MIRA 10:10)
(Sulfonic acids)

GERSENOVICH, A.I.; BALAKIREV, Ye.S.; OSTROUMOVA, V.V.

Continuous method of production of alkyl sulfonates.
Khim.prom. no.10:701-707 0 '62. (MIRA 15:12)
(Sulfonic acid)

GERSHENOVICH, A.I., kand.khim.nauk; ARSEN'YEV, D.M., inzh.; LEONOVA, L.P., inzh.

Hydroxyethylation of alcohols obtained by the method of direct oxidation
of liquid paraffins. Masl.-zhir.prom. 28 no.8:23-25 Ag '62.
(MIRA 17:2)

BALAKIREV, Ye. S.; GERSHENOVICH, A. I.; KORNEYEVA, M. V.

Sulfochlorination of the kerosine fractions of oils in the
presence of initiators. Khim. prom. no.3:235-236 Mr '63.
(MIRA 16:4)

(Kerosine) (Chlorosulfonylation)