

ACCESSION NR: AP4013420

S/0057/64/034/002/0313/0320

AUTHOR: Abrosimon, N.K.; Kaminker, D.M.; Petrov, I.A.; Sherman, S.G.

TITLE: On the theory of a duct consisting of magnetic quadrupole lenses for obtaining pure beams of μ -mesons of various energies

SOURCE: Zhurnal tekhn.fiz., v.34, no.2, 1964, 313-320

TOPIC TAGS: meson, μ -meson, π -meson, μ -meson duct, magnetic lens, quadrupole magnetic lens, magnetic lens system, momentum selector

ABSTRACT: The theory of the so-called μ -meson duct is discussed (A.Citron a. H. Overas. Report CERN sc.,143,1961; E.Braunersreuther, V.Chabaud, C.Delorme and M. Morugo, Report CERN 61-12,1961). The duct consists of a sequence of identical and equally spaced magnetic quadrupole lenses so oriented that the successive convergence planes are perpendicular to each other, and is intended for obtaining a beam of μ -mesons from the decay in flight of π -mesons. Previous theoretical treatments have restricted the discussion to the case of thin lenses. The results of the present paper are valid for lenses of arbitrary thickness (length). The equation of

Card 1/2

ACCESSION NR: AP4013420

the trajectories is of the type of Hill's equation. The stability criteria are obtained with the aid of Floquet's theorem. If the lenses are made very long, the stability regions become narrow (only particles having momenta within a small range are passed) and the system, no longer useful as a π -meson duct, can be employed as a momentum selector. From the envelope of the stable trajectories, the region in phase space is obtained from which μ -mesons, produced by decay of π -mesons in stable orbits, are captured. An expression is derived from which, by numerical integration, one can obtain the efficiency of a proposed system, i.e., the number of separable μ -mesons produced per entering π -meson. "The authors consider it their pleasant duty to express their gratitude to D.G.Alkhazov and A.P.Komar for detailed discussion of the present work." Orig.art.has: 30 formulas and 3 figures.

ASSOCIATION: Fiziki-tekhnicheskiy institut im. A.F.Ioffe AN SSSR, Leningrad (Physical Technical Institute, AN SSSR)

SUBMITTED: 15Dec62

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH, SD

NR REF SOV: 001

OTHER: 009

Card 2/2

SHERMAN, S.G.

MATUSEVICH, I.Z.; SHERMAN, S.G.

Expert diagnosis of working disability in peptic ulcer in the
post-war period. Sovet.vrach.sborn. no.17:30-33 S '49.(GLML 19:2)

1. Clinic of the Leningrad Institute for Determination of Working
Capacity and for Rehabilitation of Invalids.

SHERMAN, S. G.; SOBOLEVA, A. V.; VELIKSON, I. M.; MAKHLINA, V. B.

Lungs - Diseases

Clinico-functional method of determination of the state of respiratory insufficiency in chronic non-tuberculous pulmonary diseases. *Klin. med.* 30 no. 4, 1952.

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

SHERMAN, S.G.

SHERMAN, S.G.; FAYNSHTEYN, S.S.

Organization of the employment of pulmonary tuberculosis patients.
Probl.tub. no.1:9-13 Ja-F '55. (MIRA 8:4)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta ekspertizy
trudosposobnosti i trudoustroystva invalidov.

(TUBERCULOSIS, PULMONARY, economics,
employment)

(INDUSTRY AND OCCUPATIONS,
employment in pulm. tuberc.)

CHAYKA, V.V., doktor med.nauk; SHERMAN, S.G., starshiy nauchnyy sotrudnik

Functional evaluation of a system of respiration in tuberculosis patients working in cotton thread spinning plants. Vrach.delo no.5: 541 My '59. (MIRA 12:12)

1. Leningradskiy nauchno-issledovatel'skiy institut tuberkuleza.
(RESPIRATION) (TUBERCULOSIS)

SHERMAN, S.G.

Status and prospects for employment of patients with pulmonary tuberculosis in Leningrad. Probl.tub. 38 no.7:8-15 '60.

(MIRA 14:1)

1. Iz organizatsionno-metodicheskogo otdela (rukovoditel' G.E. Al') Leningradskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - prof. A.D. Semenov).

(TUBERCULOUS--EMPLOYMENT)

GOL'DFARB, M.L.; SHERMAN, S.G.

Working capacity and employment of patients subjected to total or
partial pneumonectomy in pulmonary tuberculosis. Vest. khir. 85
no. 7:68-73 Je '60. (MIRA 14:1)
(LUNGS—SURGERY) (DISABILITY EVALUATION)

L 13439-66 EWT(d)/EWT(m)/T/EWA(m)-2 - IJP(c)

ACC NR: AP6002455

SOURCE CODE: UR/0057/65/035/012/2248/2249

AUTHOR: Abrosimov, N.K.; Nikolayeva, V.A.; Sherman, S.G.

ORG: Physico-technical Institute im. A.F.Ioffe, AN SSSR, Leningrad (Fiziko-
tehnicheskii institut AN SSSR)

149
B

TITLE: Approximate calculation of the efficiency of a mu-meson duct

19,44,55

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no. 12, 1965, 2248-2249

TOPIC TAGS: mu meson, pi meson, magnetic quadrupole lens, particle beam, ~~mathematical~~
~~method~~ pion scattering

ABSTRACT: N.K.Abrosimov, D.M.Kaminker, I.A.Petrov, and S.G.Sherman (ZhTF, 34, 313, 1964) have proposed a method for estimating the efficiency of a magnetic quadrupole lens muon duct. This method involves evaluation of a triple integral. Here it is pointed out that the muon capture efficiency, which is a periodic function of z, is actually nearly independent of z when the pion momentum is high (z is presumably a coordinate measured along the duct; the notation of the earlier paper is employed and the reader is permitted to guess what the symbols mean), and that by assuming this quantity to be independent of z one can reduce the triple integral to a double integral. If the pion momentum scatter is small one can further reduce the triple integral to a single integral. The muon efficiencies of three ducts of different design were calculated as functions of the pion momentum and the results are presented

Card 1/2

UDC: 537.533.33

2

L 13439-66

ACC NR: AP6002455

graphically. The muon efficiency passes through a maximum at a certain pion momentum. The maximum muon efficiency increases and the pion momentum at which the maximum efficiency is reached decreases with increasing values of the ratio l/d , where l and d are two lengths that are presumably defined in the reference cited above. Orig. art. has: 6 formulas and 1 figure.

SUB CODE: 20

SUBM DATE: 14May65

ORIG. REF: 001

OTH REF: 000

Card

2/2

CHARUSHIN, G.V.; SHERMAN, S.I.

Two ways of speeding up the construction process of ~~fabrics~~
diagrams. Sov.geol. 4 no.9:108-114 S '61. (MIRA 14:11)

1. Vostochno-Sibirskiy geologicheskii institut Sibirskogo
otdeleniya AN SSSR.

(Geology, Structural--Graphic methods)
(Petrography)

KHRENOV, P.M.; CHERNOV, Yu.A.; SHERMAN, S.I.

Conference of young geologists of the Institute of the Earth's Crust.
Geol.i geofiz. no.7:117-119 '63. (MIRA 16:10)

38311 SHERMAN, S. I.

Preparaty protiv malokroviya. Sov. meditsina, 1949, No 12, s. 29-30

a. Meditsinskaya mikrobiologiya, immunologiya i
parazitologiya. Epidemiologiya

SHERMAN, S.I.; LEVINA, D.A.

Effects of liver extract therapy in pernicious anemia. Klin.
med., Moskva no.3:81-82 Mr '50. (CIML 19:2)

1. Leningrad.

SHERMAN, S.I.

Classification of anemia. Klin.med., Moskva no.4:30-39 Ap '50.
(CML 19:3)

1. Of the Hematological Clinic (Head -- Prof. S.I.Sherman) of the Leningrad Order of the Red Banner of Labor Institute of Blood Transfusion (Director -- Docent V.V.Kukharchik; Scientific Director-- Prof. A.N.Filatov).

SHERMAN, S. I. Prof.

Anemia

Relation between gastric polyposis and Byermer's anemia. Klin. med. 30 No. 7, July 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 195~~7~~, Uncl.
2

SHERMAN, S. I. (PROF)

USSR/Medicine - Post-Transfusion Hepatitis Dec 53

"The Prophylaxis of Post-Transfusion Virus Hepatitis,"
Prof S. I. Sherman, S. I. Diakonovich, I. A.
Yurikas, A. V. Blinova, A. V. Alekseyeva, R. S. Ger-
mant, Leningrad Sci-Res Inst of Blood Transfn; Div
of Virol, Inst Exptl Med, Acad Med Sci USSR, Len-
ingrad

Klin Med, Vol 31, No 12, pp 57-61

Describes results of lab work on post-transfusion
hepatitis conducted in 1946-1952. States that lab
findings revealed the superiority of the qualitative
bilirubin blood test (direct reaction) over the

274T28

quantitative test in the detn of a pre-jaundice or
post-jaundice condition in blood donors.

SHERMANN, S.I.

SHERMANN, S.I., professor; KISELEV, A.Ye., dotsent; PERPLETCHIK, R.R.,
kandidat tekhnicheskikh nauk; POVERGO, N.S.

Results of treating pernicious anemia with campolon derived from
marine animals. Klin. med. 32 no.6:53-57 Je '54. (MLRA 7:8)

1. Leningrad; iz gematologicheskoy kliniki (zav.-prof. S.I. Sherman),
Leningradskogo nauchno-issledovatel'skogo instituta perelivaniya krovi.

(ANEMIA, PERNICIOUS, therapy

*campolon)

(LIVER EXTRACTS, therapeutic use

*campolon in pernicious anemia)

SHERMAN, S.I., prof.; ZHISLINA, Z.G.

Red blood picture in peptic ulcer. Akt.vop.perel.krovi no.4:198-200
'55. (MIRA 13:1)

1. Gematologicheskaya klinika Leningradskogo instituta perelivaniya
krovi.

(PEPTIC ULCER)

(ERYTHREMIA)

SHERMAN, S.I., professor (Leningrad)

On S.B.Geiro's article "Clinical hematological variants, and stages
of chronic myelosis." Terap.arkh. 28 no.3:84-85 '56. (MLRA 9:8)
(LEUKEMIA)

SHERMAN, S. I.

"Comparative Evaluation of the Effectiveness of Certain Methods for the Therapy of Chronic Leukosis Report 1: Therapy of Chronic Leukosis by X Rays," by Prof S. I. Sherman, Docent D. S. Kuz'min, L. M. Rozanova, A. N. Kiseleva, N. S. Fovergo, and A. D. Vaku-lenko (Reported at the expanded plenum of the Central Order of Lenin Institute of Hematology and Blood Transfusion on 15 Dec 1954 and at the Conference of the Leningrad Department of the All-Union Therapeutic Society imeni S. P. Botkin on 15 Nov 1955), Problemy Gematologii i Perelivaniya Krovi, Vol 2, No 1, Jan/Feb 57, pp 28-32

Experimental results classified into two tables showing the response of myelosis and lymphadenosis indicate that prolonged fractional irradiation of patients suffering from chronic leukosis with small doses of X rays (100 r) in combination with transfusion of concentrated suspensions of erythrocytes is the most expedient and effective method. This method gives good therapeutic effects without complications such as symptoms of radiation sickness.

Sec. 1315

SHERMAN, S.I., professor; KUZ'MIN, D.S., dotsent; ROZANOVA, L.M.; KISELEVA,
A.N.; POVERGO, N.S.; VAKULENKO, A.D.

Comparative evaluation of the effectiveness of various methods of
treating chronic leucosis. Report No.1: Treatment of chronic leucosis
by X rays [with summary in English, p. 64] Probl. gemat. i perel. krovi
2 no.1:28-32 Ja-F '57 (MIRA 10:4)

1. Iz gematologicheskoy kliniki (zav.-prof. S.I. Sherman)
Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-
issledovatel'skogo instituta perelivaniia krovi (dir.-dotsent
A.D. Belyakov; nauchnyy rukovoditel'-chlen-korrespondent AMN SSSR
prof. A.N. Filatov)

(LEUKEMIA, ther.
radiother. of chronic leukemia)
(RADIOTHERAPY, in various dis.
leukemia, chronic)

EXCERPTA MEDICA Sec 16 Vol 7/9 Cancer Sept 59

3806. Comparative evaluation of the efficacy of certain methods in the treatment of chronic leukaemias (X-rays, radioactive phosphorus, urethan, embichin, arsenic, busulphan). II & III (Russian text) SHERMAN S. I., KUZMIN D. S., ROZANOVA L. M., KISELEVA A. N., POVERGO N. S. and VAKULENKO A. D. *Probl. Gematol. i Perel. Krovi* 1958, 3/2 (26-34) and 62-63) Tables 3

117 patients with chronic leukaemia were treated with roentgen therapy. In most patients the period of remission lasted for from 6 to 9 months. Sixty-three patients with pronounced relapses underwent repeated roentgen therapy. In most patients a considerable improvement, permitting return to their original occupations, ensued. Radioactive phosphorus was used in 32 patients to avoid complications (anaemia, thrombocytopenia, exacerbation of the process); fractional peroral doses of P^{32} , 4.5-6.5 mc. per course, were given. Clinical and haematological remission took place in 25 patients, following the first course of treatment with P^{32} . Treatment of the remaining 7 patients produced no results. Long-range results of P^{32} therapy of chronic myeloid leukaemia are discussed. The authors conclude that the results of P^{32} treatment proved inferior to those of X-ray therapy. Immediate and long-term results in the treatment of chronic lymphocytic leukaemia with radioactive phosphorus are also set forth. The authors state that P^{32} is more effective in chronic lymphocytic leukaemia than in chronic myelosis.

SHERMAN, S.I., prof.; RABINOVICH, S.I.

The classification of Werlhof's disease. Probl. gemat. i perel. krvi
3 no.5:17-20 S-0 '58. (MIRA 11:11)

1. Iz gematologicheskoy kliniki (zav. - prof. S.I. Sherman) Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta perelivaniya krvi (dir. - dots. A.D. Belyakov, nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. A.N. Filatov).

(PURPURA, THROMBOPENIC,

classif. on basis of funct. state of megakaryocytes &
on clin. course (Rus))

(BONE MARROW, physiology

megakaryocyte funct. state, evaluation in classif. of
thrombopenic purpuras (Rus))

TUSHINSKIY, Mikhail Dmitriyevich; YAROSHEVSKIY, Arnel'd Yakovlevich.
Prinimali uchastiye: FILATOV, A.N.; AKKERMAN, V.V., doktor
med.nauk; SHERMAN, S.I., prof.; TSIMMERMAN, N.A.. MYASNIKOV,
A.L., prof., red.; SHTUTSER, N.V., red.; SENCHILO, K.K., tekhn.
red.

[Blood system diseases] Bolezni sistemy krovi. Moskva, Gos.
izd-vo med.lit-ry, 1959. 386 p. (MIRA 12:9)

1. Chlen-korrespondent AMN SSSR (for Filatov). 2. Deystvitel'nyy
chlen AMN SSSR (for Myasnikov).
(BLOOD--DISEASES)

SHERMAN, S.I., prof.; KUZ'MIN, D.S., dots.; ROZANOVA, L.M.; KISELEVA, A.N.;
POVERGO, N.S.; VAKULENKO, A.D.

Comparative evaluation of the effectiveness of certain therapeutic
methods in chronic leukemias; roentgen rays, radioactive phosphorus,
urethan, embichin, arsenic, myleran. Report No.4 [with summary in
English, p.61]. Probl.gemat. i perel.krovi 4 no.1:17-20 Ja-F '59.
(MIRA 12:2)

1. Iz gematologicheskoy kliniki (zav. - prof. S.I. Sherman) Lenin-
gradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'-
skogo instituta perelivaniya krovi (dir. - dots. A.L. Belyakov,
nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. A.N. Fi-
latov).

(LEUKEMIA, therapy,
comparison of various radiol. & chem.
methods (Rus))

SHERMAN, S.I., prof.; KUZ'MIN, D.S., dotsent; ROZANOVA, L.M.; KISELEVA, A.N.:
POVERGO, N.S.; VAKULENKO, A.D.

Comparative evaluation of the effectiveness of certain therapeutic
methods in chronic leukemias; roentgen rays, radioactive phosphorus,
urethane, embichine, arsenic, myleran. Report No.5: Probl. gemat. i
perel. krovi 4 no.5:14-18 My '59. (MIRA 12:7)

1. Iz gematologicheskoy kliniki (zav. - prof. S.I. Sherman, Leningrad-
skogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo in-
stituta perelivaniya krovi (dir. - dotsent A.D. Belyakov, nauchnyy
rukovoditel' - chlen-korrespondent AMN SSSR prof. A.I. Pilatov).
(LEUKEMIA, therapy,
comparison of various methods (Rus))

SHERMAN, S.I., prof.; KUZ'MIN, D.S., dotsent; ROZANOVA, L.M.; POVERGO, N.S.

Treatment of patients with chronic myelosis with myelosan in
association with roentgen rays. Terap.arkh. 32 no.9:32-36 '60.
(MIRA 14:1)

1. Iz gematologicheskoy kliniki (zav. - prof. S.I. Sherman)
Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-
issledovatel'skogo instituta perelivaniya krovi (nauchnyy ruko-
voditel' - chlen-korrespondent AMN SSSR prof. A.N. Filatov).
(BUSULFAM) (LEUKEMIA)

SHERMAN, S.I., prof.; BLINOVA, A.I.

Indications and contraindications for splenectomy in Werlhof's disease, hemolytic jaundice, the splenomegalic form of liver cirrhosis, and in thrombophlebitis splenomegaly. Probl.gemat.i perel.krovi 5 no.1:14-17 Ja '60. (MIRA 14:6)

1. Iz gematologicheskoy kliniki (zav. - prof. S.I., Sherman) i khirurgicheskoy kliniki (zav. - chlen-korrespondent AMN SSSR prof. A.N.Filatov) Leningradskogo ordena Trudovogo Krasnogo Znameñi instituta perelivaniya krovi (dir. - dotsent A.D.Belyakov).
(SPLEEN—SURGERY) (LIVER—CIRRHOSIS)
(ANEMIA) (PURPURA (PATHOLOGY))

SHERMAN, S.I.

Apropos of the article by Professor I.A. Kassirskii and Professor
G.A. Alekseev "On the nomenclature of blood cells." Probl. gemat.
i pere1. krovi 5 no. 8:25-26 Ag '60. (MIRA 14:1)
(BLOOD CELLS) (KASSIRSKII, I.A.) (ALEKSEEV, G.A.)

SHERMAN, S.I., prof.; ROZANOVA, L.M.

Interrelation between polycythemia vera and chronic myelosis.
Terap.arkh. 34 no.3:99-104 '62. (MIRA 15:3)

1. Iz gematologicheskoy kliniki (zav. - prof. S.I. Sherman) Leningradskogo nauchno-issledovatel'skogo instituta perelivaniya krovi (dir. - dotsent A.D. Belyakov, nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. A.N. Filatov).
(ERYTHREMIA) (MARROW--TUMORS)

BABCHIN, I.S., prof.; BABANOVA, A.G., doktor med. nauk; BLOKHIN, N.N., prof.; BONDARCHUK, A.V., prof.; GAL'PERIN, M.D., prof.; GOL'DSHTEYN, L.M., prof.[deceased]; DYMARSKIY, L.Yu., kand. med. nauk; KARPOV, N.A., prof.; KOYRO, M.A., nauchn. sotr.; LARIONOV, L.F., prof.; LITVINOVA, Ye.V., kand. med. nauk; MEL'NIKOV, R.A., kand. med. nauk; NECHAYEVA, I.D., doktor med. nauk; PETROV, Nikolay Nikolayevich, prof.; PETROV, Yu.V., kand. med.nauk; RAKOV, A.I., prof.; ROGOVENKO, S.S., kand. med. nauk; SENDUL'SKIY, I.Ya., prof.; SEREBROV, A.I., prof.; SMIRNOVA, I.N., kand. med. nauk; TAL'MAN, I.M., prof.; TOBILEVICH, V.P., prof.; TRUKHALEV, A.I., kand. med. nauk; KHOLDIN, Semen Abramovich, prof.; CHEKHARINA, Ye.A., kand. med. nauk; CHECHULIN, A.S., kand. med. nauk; SHAAK, V.A., prof.[deceased]; SHANIN, A.P., prof.; SHAPIRO, I.N., prof.[deceased]; SHEMYAKINA, T.V., kand. med. nauk; SHERMAN, S.L., prof.; ABRAKOV, L.V., red.; LEBEDEVA, Z.V., tekhn. red.

[Malignant tumors]Zlokachestvennyye opukholi; klinicheskoe rukovodstvo. Leningrad, Medgiz. Vol.3. Pts.1-2. 1962. (MIRA 16:5)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Blokhin, Petrov, Serebrov). 2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Kholdin).

(CANCER)

YAKUBSON, A.K.; SHERMAN, S.M.

Treatment of lupus erythematosus with bigumal. Sov. med. 25 no.11:
144-146 N '61. (MIRA 15:5)

1. Iz kliniki kozhnykh bolezney (zav. - prof. A.K.Yakubson) Novosibirskogo meditsinskogo instituta i gorodskogo venerologicheskogo dispansera (glavnyy vrach N.I.Sukhareva).
(LUPUS ERYTHEMATOSUS) (PALUDRINE)

ZAGOSKIN, Yu.B., inzh.; SHERMAN, V.L., inzh.

Screwdriver with flexible shaft for M5-M8 screws and nuts. Stroi.
i dor. mash. 7 no.3:31-32 Mr '62. (MIRA 15:4)
(Screwdrivers)

SHERMAN, V.L.; LEGON'KIKH, G.V.; KORSAKOV, V.S., doktor tekhn. nauk,
prof., retsenzent; NOVIKOV, M.P., kand. tekhn.nauk, red.;
STROGANOV, L.P., inzh., red.; EL'KIND, V.D., tekhn. red.

[Mechanization of assembling operations in the instrument
industry] Mekhanizatsiia sborochnykh rabot v priborostroenii.
Moskva, Mashgiz, 1963. 466 p. (MIRA 17:2)

I. 228i3-66 EWT(m)/EPF(n)-2/EWP(v)/T/EWP(t)/EWP(k) IJP(c) ~~EP/SM/IG~~
ACC NR: AP6011215 SOURCE CODE: UR/0413/66/000/006/0052/0053

INVENTOR: Gonserovskiy, F. G.; Sherman, V. P. 54
B

ORG: none

TITLE: Method of joining niobium and its alloys to vanadium. Class 21, No. 179855

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 52-53

TOPIC TAGS: welding, fusion welding, niobium, niobium alloy, niobium welding, alloy welding, vanadium, filler material, titanium, titanium filler, niobium titanium welding

ABSTRACT: This Author Certificate introduces a method of welding niobium and its alloys to vanadium. To ensure a high ductility of the weld, titanium is used as filler material. [ND]

SUB CODE: 13/ SUBM DATE: 22Apr64/ ATD PRESS: 4229

welding of dissimilar metals 18

Card 1/1 BK

UDC: 621.791.762.5.042

SHEPMAN, V.S.

Use of mathematical statistics methods in studying the
preparation of a charge mixture. Zav.lab. 31 no.10:1229-
1231 '65. (MIRA 19:1)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut.

BABIN, M.; SHERMAN, Ya.

Metal scrap in excess of the plan. Prom.koop. 14 no.3:30 Mr
'60. (MIRA 13:7)

1. Predsedatel' pravleniya arteli "Avtoguzhtransport," Saratov (for
Babin). 2. Sekretar' partorganizatsii arteli "Avtoguzhtransport,"
Saratov (for Sherman).
(Scrap metal industry)

WYDRACH, G. H., SHERMAN, YA. I.

Viruses

From the history of the science of viruses; controversy between D. I. Ivanovskiy and M. V. Beijerinck. Mikrobiologiya 21 No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1958² Unclassified.

PROCESSES AND PROPERTIES INDEX

1-146

c

Effect of the method of preparing the slip on its characteristics. YA. I. SHERMAN. *Steklo i Keram. Prom.* 1944, No. 13, pp. 14-15. The relations between the process of preparing the slip and the characteristics of the slip and the finished products were studied with pressed slip and nonpressed slips containing kaolin 29, clay 21, quartz and nonpressed slips containing kaolin 18, and feldspar 25%. Water content was 33 to 35%, and the soda and liquid glass electrolytes were 0.3 to 0.45% by weight of the dry materials. The cycle of preparation was 18 hr. for the pressed slip and 8 to 9 hr. for the nonpressed slip; the latter required 2 to 3% more water and 0.1 to 0.15% more electrolytes than the former. The viscosity of the pressed slip and its tendency to thicken were somewhat lower than those of the nonpressed slip. The shrinkage of products dried at 105° was about the same, regardless of the method of preparation. Nonpressed slips fired at 1250° had a lower porosity than pressed slips. The mechanical strength of the products was about the same for both types of slips. The whiteness, determined by means of a photocell, was 65.7% for the pressed and 61.6% for the nonpressed type. On the basis of the results obtained, it is recommended that the nonpressed slips be used in casting structural and sanitary products. B.Z.K.

METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS

COMMON TABLETS INDEX

ALPHABETIC INDEX

INDEX AND CROSS INDEX

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX 3RD AND 4TH ORDERS

19

CA

Testing [ceramic] slips in the Stormer viscometer. Y.M. Sherman. *Sobol'nye i Keram. Prom.* 1945, No. 1/2, 10-17; *Ceram. Abstracts* 1948, 10(In *J. Am. Ceram. Soc.* 31, No. 1).—An important advantage of the Stormer viscometer is the ability to measure the viscosity of any clay suspension or slip regardless of d. Viscosity is calcd. from $\eta = K(\rho/\omega)$, where ρ = the load, ω = the angular velocity of rotation, and K = a const. dependent on the dimensions of the cylinder. This viscometer can also be used to det. the relative viscosity from $\eta = t_1/t_2$, where t_1 = the time required to make 100 revolutions in the suspension and t_2 = the time required to make 100 revolutions in distd. H₂O. M. F. R.

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

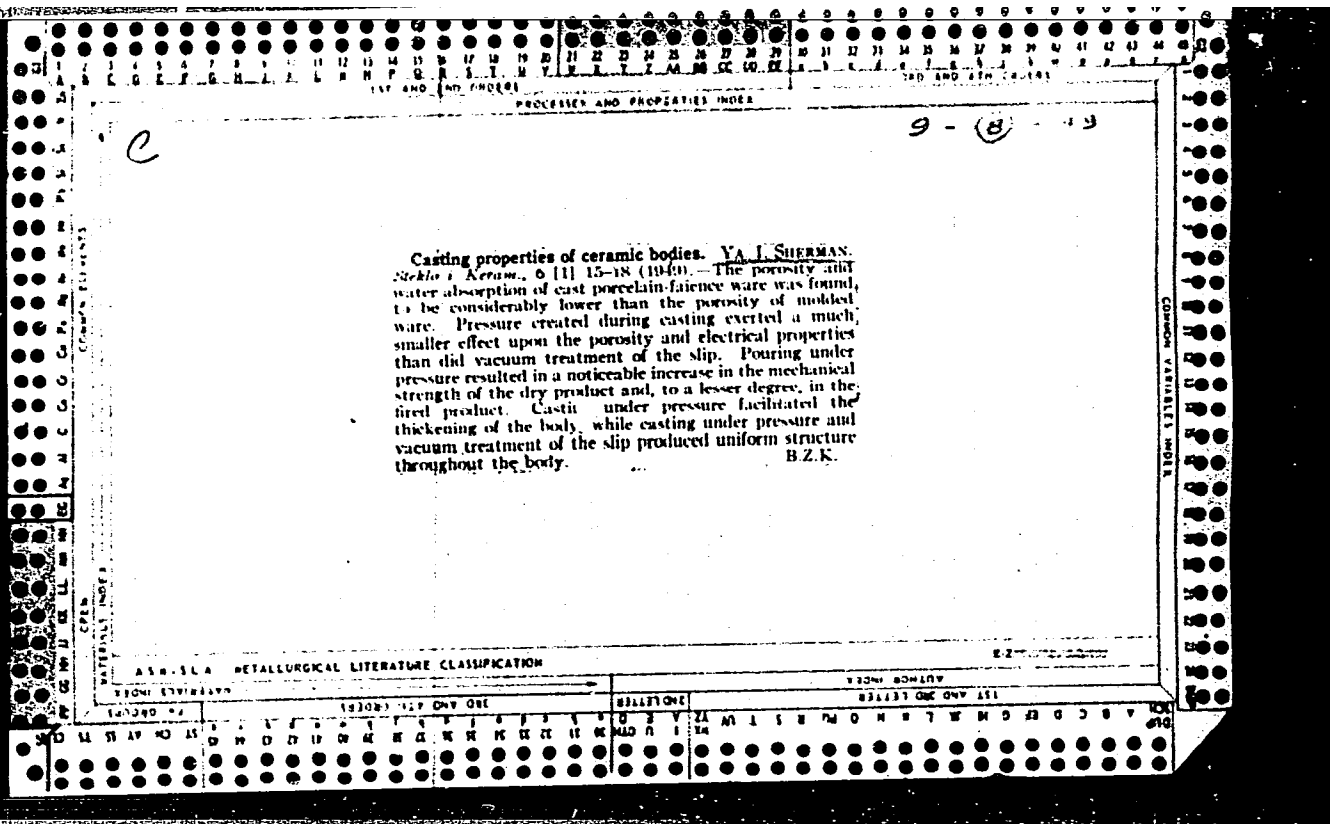
E-277

MATERIALS INDEX 1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

SHERMAN, Ya. I.

Snerman, Ya. I. "German ceramic industry," in symposium: Syr'-yevyye resursy tonkokeram
prom-sti SSSR i puti ikh ispol'zovaniya, Moscow-Leningrad, 1948, p. 42-43

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949



SHERMAN, Ya. I.

Proizvodstvo sanitarno-stroitel'noy keramiki.
Moscow, Gosudarstvennoe Izdatel'stvo Literatury po Stroitel'ny
Materialam, 1951. pp. 209, photos, diags., tabs., bibliog.;
22 x 14; blue and buff boards.

SHERMAN, Yakov Iosifovich; OVCHINSKIY, A.F., inzh., nauchnyy red.;
KOSYAKINA, Z.K., red.izd-va; KOMAROVSKAYA, L.A., tekhn.red.

[Production of sanitary structural ceramics]Proizvodstvo
sanitarno-stroitel'noi keramiki. Izd.2., perer. 1 dop. Mo-
skva, Gosstroizdat, 1963. 149 p. (MIRA 16:3)
(Sanitary engineering--Equipment and supplies)
(Ceramics)

SHERMAN, Ya. N.,

"Determination of Permissible Number of Short-Circuit Current Cut-offs of a Low-Oil Content Circuit Breaker According to the Conditions of Lowered Electrical Strength of Its Internal Insulation," with KAPLAN, V. V., and NASHATYR', V. M., p 460

High Voltage Technique, Moscow, Gosenergoizdat, 1958, 664pp
(Series: Its Trudy, No. 195)

This collection of articles sums up the principal results of investigations and studies made by Prof. A. A. Gorev, Dr. Tech. Sci., and his staff in the field of high voltage phenomena and techniques at LPI (Leningrad Polytech Inst.) It was at this institute that Prof. Gorev completed his higher scientific education and then taught and carried on his investigations in the field until his death in 1953. In 1956, by decree of Min of Higher Education, the High-Voltage Lab. at LPI was named after A. A. Gorev.

8(3)

SOV/112-59-3-4927

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 90 (USSR)

AUTHOR: Kaplaa, V. V., Nashatyr', V. M., and Sherman, Ya. N.

TITLE: Determination of Permissible Number of Short-Circuit-Current Interruptions by a Low-Oil-Content Circuit Breaker on the Basis of the Impaired Electric Strength of its Internal Insulation (Opredeleniye dopustimogo chisla otklyucheniy toka korotkogo zamykaniya malomaslyanym vyklyuchatelem po usloviyam snizheniya elektricheskoy prochnosti yego vnutrenney izolyatsii)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1958, Nr 195, pp 460-475

ABSTRACT: Methods are developed for determining the guaranteed number of short-circuit-current interruptions by a low-oil-content circuit breaker; the methods are based on investigations of the internal insulation of a type MG-110 low-oil-content "Elektroapparat" make circuit breaker, conducted in the high-voltage laboratory of LPI. (1) First, the circuit breaker is to be tested for

Card 1/4

8(3)

SOV/112-59-3-4927

Determination of Permissible Number of Short-Circuit-Current Interruptions

many interruptions of its rated short-circuit current. It is permitted to stage these tests at a considerably lower voltage; however, the time of arc burning should be as long as the time under actual short-circuit clearing conditions. From the standpoint of chamber-insulation contamination, such test conditions are equivalent to the conditions of breaker operation under its rated voltage. (2) Then the internal-insulation resistance should be measured by a megommeter, leakage currents due to an applied rectified voltage should be determined, and oil samples should be taken. (3) As a next step, the insulation of the breaker with open contacts is tested by an oscillatory voltage similar to the actual recovery voltage; the crest value of the testing voltage is selected equal to the most probable surge voltage observed in the network in question. The above tests can be staged by means of a "switching-surge generator" developed and built in the high-voltage LPI laboratory (a detailed description of the device is presented). In selecting frequency of the test voltage, it

Card 2/4

8(3)

SOV/112-59-3-4927

Determination of Permissible Number of Short-Circuit-Current Interruptions

should be kept in mind that the insulation is more strained with a lower frequency of the surge-voltage oscillations. (4) Measurements according to items 2 and 3 are repeated with gradually increasing surge amplitudes in order to determine the margin of the insulation under test. (5) The insulation measurement according to item 2 is repeated; thereupon, to the breaker or to its individual arc-rupturing contacts a commercial-frequency voltage is applied which exceeds by 20-25% the voltage most probable under the operating conditions of the breaker in question. (6) If the state of insulation permits, the testing procedure (items 1-5) is again repeated. The investigations by the above method have shown that, after 80 or more openings (of currents close to the rated duty 13,200 amp), the MG-110 breaker and its internal insulation have been in good condition: infinite insulation resistance and leakage current of 1 microamp or less, the insulation has withstood AC voltage for 8 hours and also surge impulses with peak values as high as 7 times the line-to-ground

Card 3/4

8(3)

SOV/112-59-3-4927

Determination of Permissible Number of Short-Circuit-Current Interruptions

voltage. The chamber insulation was impaired only when surge impulses were applied after 94 openings of short-circuit currents. The authors permit 10 openings of short-circuit currents by the MG-110 breaker under operating conditions, with inspection or oil change. Investigation results are tabulated.

R.A.M.

Card 4/4

8(2)

SOV/105-59-7-22/30

AUTHOR: Sherman, Ya. N., Engineer

TITLE: A Device for the Direct Testing of High-voltage Apparatus
(Ustanovka dlya pryamykh ispytaniy vysokovol'tnykh apparatov)

PERIODICAL: Elektrichestvo, 1959, Nr 7, pp 81 - 83 (USSR)

ABSTRACT: At the Leningradskiy filial VEI (Leningrad Branch of the All-Union Electrotechnical Institute) a method of testing high-voltage apparatus as to their disconnectibility was worked out and investigated 1956 - 1958. In this method the summation of the reactive power of the shock oscillator and of the oscillatory circuit was attained by their being connected in series. Figure 1 shows the basic wiring scheme of the device, which is briefly described. For the purpose of warranting optimum utilization of the shock oscillator efficiency and a long life of the condensers which are used in the oscillatory circuits of A. A. Gorev used here, the duration of short-circuits must be reduced to a minimum. This is attained if no transition process of reduced frequency occurs. The necessary condition is written down. In order to attain the best possible utilization of the condensers, should their nominal voltage be different from planned voltage, as well as in the testing of apparatus at increased or reduced voltages, intermediate

Card 1/2

A Device for the Direct Testing of High-voltage Apparatus SOV/105-59-7-22/30

transformers are used (Figure 2 shows such a basic circuit). Figure 3 shows such a circuit according to which the investigations of the joint work of the shock oscillator TI-12 and of the oscillatory circuit were carried out at the aforementioned institute. Also the oscillograms obtained by the experiment are given. In a summary, it is said that the use of a circuit with series-connected shock oscillators and oscillatory circuit of Gorev makes it possible to summate their efficiencies and thus to increase the testing efficiency of the laboratory in the case of direct tests. The circuit permits a combination of the decrease of short-circuit currents and, in some cases, a compensation of part of the inductivity in the oscillatory circuit, so that the installed efficiency of the shock oscillator and of the oscillatory circuit can be fully utilized. There are 6 figures.

ASSOCIATION: Leningradskiy filial Vsesoyuznogo elektrotekhnicheskogo instituta im. Lenina (Leningrad Branch of the All-Union Electrotechnical Institute imeni Lenin)

SUBMITTED: December 12, 1958

Card 2/2

SHERMAN, Ya. N.

Cand Tech Sci - (diss) "Joint performance of shock generator and oscillation circuit of A. A. Gorev in direct testings of high-voltage apparatus as to switching capacity." Leningrad, 1961. 20 pp; with diagrams; (State Committee of the Council of Ministers USSR for Automation and Machine-Building, All-Union Order of Lenin Electrical Engineering Inst imeni V. I. Lenin, Leningrad Affiliate); 150 copies; price not given; (KL, 10-61 sup, 220)

SHERMAN, Ya.N., inzh.

Joint operation of an impulse generator and Gorev's tank circuit in the direct testing of the performance of circuit breakers. Elektrichestvo no.5:52-57 My '61. (MIRA 14:9)

1. Vsesoyuznyy elektrotekhnicheskiy institut imeni Lenina, Leningradskiy filial.

(Electric circuit breakers--Testing)

ZAKHAROV, S.N., kand.tekhn.nauk; KAPLAN, V.V., inzh.; IONOV, V.V., inzh.;
OSIPOVA, T.V., inzh.; SHERMAN, Ya.N., inzh.; SHESHIN, B.A., inzh.

New MG-10 and MG-20 generator switches. Vest. elektroprom. 32 no.3:
71-76 Mr '61. (MIRA 15:6)

(Electric switchgear)

SHERMAN, Ye.

Grouping elements of operations in establishing production
standards. Sots.trud no.2:90-97 F '57. (MLRA 10:5)
(Production standards)

SHERMAN, Ye. I.
AUTHOR: Sherman, Ye. I.

3-58-2-15/33

TITLE: Meeting the Needs of Industry (Idya navstrechu nuzhdam promyshlennosti)

PERIODICAL: Vestnik Vysshey Shkoly, 1958, # 2, pp 65-67 (USSR)

ABSTRACT: Because of the lack of engineer-economists, some vtuzes in 1957 began training in this field. At the Moscow Aviation Institute this task was entrusted to the Inzhenerno-ekonomicheskii fakultet (Engineering-Economic Faculty). The number of hours were increased for the following courses: "Cutting, Machine Tools and Instruments", "Technology of Aircraft Building", "Technical Normalization", and the following additional subjects were introduced: "Automation of Production Processes" and "Organization of Labor and Wages". Special programs provide courses in "Organization of Production" and "The Economics of the Aviation Industry". Much of the time allotted for this subject is used for practical and laboratory exercises. The students are taught to compute the technical standards for operating metalcutting lathes, for bench work, cold and drop forging, welding and assembling.

In the laboratory of technical normalization the students elaborate norms for the cutting process, calculate the times

Card 1/2

Meeting the Needs of Industry

3-58-2-15/33

for fixing and removing parts, assembling units of engines and aircraft. They also prepare equipment index cards, study the organization of one-man-operation of several machine tools, etc.

In the course "Organization of Labor and Wages", the students compute the workmen wages and various indices of labor, analyze the structure of wages, etc.

The students prepare 3 projects - on machine parts, technology and organization of labor, and technical normalization, and accomplish 3 works - on political economy, planning and economics of the aviation industry. During the first half (4 weeks) of the practical training, the students work as normalization clerks in the labor and pay office; during the second half - in the plants norm-research office.

ASSOCIATION: Moskovskiy aviatsionnyy institut imeni S. Ordzhonikidze (The Moscow Aviation Institute imeni S. Ordzhonikidze)

AVAILABLE: Library of Congress

Card 2/2

С.Н. ЕРМАНОВ, Ye.
MAKSIMOV, A.; SHERMAN, Ye.

Review of output norms at machinery manufacturing plants. Sots. trud
no.2:79-85 F '58. (MIRA 11:1)
(Machinery industry--Production standards)

SHERMAN, Ye.

To examine and utilize working time properly. Sots.trud no.12:
87-93 D '58. (MIRA 13:4)
(Time study)

SHERMAN, Ys.; MOICHANOVA, N.; ZAGIROVA, R.

Use of calculating machines for the analysis of wage systems.
Sots.trud 4 no.8:66-71 4g '59. (MIRA 13:1)
(Wages) (Accounting machines)

SHERMAN, Ye.

Choosing a suitable operational procedure in setting up
technically justified standards. Biul.nauch.inform.: trud i
zar.plata no.5:11-16 '59. (MIRA 12:6)
(Turning) (Production standards)

SHERMAN, Ye.

Working out norms for the number of auxiliary workers.
Biul.nauch. inform.; trud i zar. plata 3 no.1:21-32 '60.
(MIRA 13:6)
(Machinery industry--Production standars)

LYASNIKOV, I.; KHOLODNAYA, G.; SHERMAN, Ye.

"Principles of establishing work norms in an industrial enterprise"
by A.D.Gal'tsov. Reviewed by I.Liashnikov, G.Kholodnaia, E.Sherman.
Sots.trud 7 no.1:155-159 Ja '62. (MIRA 15:4)
(Production standards) (Gal'tsov, A.D.)

SHERMAN, Ye.Ye.; SHERMAN, I.Ye.

Machine for priming and painting wood parts. Der. prom. 8 no.9:
26-27 S '59. (MIRA 12:12)

(Wood finishing)

SHERMAN, Ya. G.

Kinetics and vapor phase oxidation mechanism of aromatic hydrocarbons. VI. The naphthalene oxidation

thylene oxidation... and maleic anhydride... on SiO₂ gel, to explain the data on the naphthalene oxidation mechanism. The activation energies of the oxidation reactions were 11,500 cal./mol. for 1,4-naphthoquinone, 28,000 cal./mol. for phthalic anhydride, and 10,500 cal./mol. for maleic anhydride. The assumption that the 1-naphthoquinone is the principal intermediate in the naphthalene oxidation to phthalic anhydride was found to be incorrect from the catalytic oxidation tests of 1-naphthoquinone in vacuum, which resulted in the conversion of 1-naphthoquinone to phthalic anhydride and the total oxidation scheme of naphthalene, in agreement with results obtained can be expressed as: naphthalene → naphthoquinone → CO₂ + H₂O and also naphthalene → phthalic anhydride → CO₂ + H₂O.

W. M. Stepanov

2/1

PM

EST

SHERMAN, Yu. G.

USSR.

11236* Investigations in the Field of the Kinetics and Mechanism of the Vapor-Phase Oxidation of Aromatic Hydrocarbons. *Issledovaniia v oblasti kinetiki i mekhanizma parofaznogo okisleniia aromaticheskikh uglevodorodov. VI. Oxidation Mechanism of Naphthalene on Vanadium Catalysts. Mekhanizm okisleniia naphthalina na vanodievnykh katalizatorakh.* (Russian.) L. I. Ioffe and Yu. G. Sherman. *Zhurnal Fizicheskoi Khimii*, v. 29, no. 4, Apr. 1955, p. 692-698.
Includes tables, graph. D ref.

IOFFE, I.I.; SHERMAN, Yu.G.

Research in the field of kinetics and mechanism of vapor-phase oxidation of aromatic hydrocarbons. Part 6. Mechanism of the oxidation of naphthalene on vanadium catalysts. Zhur.fiz.khim. 29 no.4:692-698 Ap '55. (MIRA 8:8)

1. Institut organicheskikh poluproduktov i krasiteley im. K.Ye. Voroshilova, Moskva. (Naphthalene) (Oxidation)
(Catalysts, Vanadium)

SHERMAN, Yu. G.

USSR .

6768* Investigations of the Kinetics and Mechanisms of the Vapor-Phase Oxidation of Aromatic Hydrocarbons. *Issledovaniya v oblasti kinetiki i mekhanizma parafaznogo oksidatsionnogo aromatishezhikh uglerodorodov.* V. Kinetics of Oxidation of Naphthalene on a Mixed Vanadium Catalyst. *Kinetika oksidatsionnogo nastalina na smeshannom vanadiyevom katalizatore.* (Russian.) I. I. Ioffe and Yu. G. Sherman. *Zhurnal Fizicheskoi Khimii*, v. 28, no. 12, Dec. 1954, p. 2005-2108.

Mathematical analysis. Tables, graphs, sketches. 5 ref.

SHERMAN, YU. G.

6

Chem

2

Kinetics and mechanism of the vapor-phase oxidation of aromatic hydrocarbons. V. Kinetics of oxidation of naphthalene over a mixed vanadium catalyst. J. I. Iosic and Yu. G. Sherman. *Zhur. Fiz. Khim.* 28, 2095-2106 (1952); *Chem. Abstr.* 47, 3549f. — The oxidation of naphthalene (N) by atm. O (II) in the presence of a V K sulfate catalyst was studied in a described and illustrated app. under isothermal conditions at temps. from 260 to 400°, initial I concns. from 0.00269 to 0.00833M, and initial II concns. from 0.00437 to 0.0205M. The amts. of reaction products obtained, including phthalic anhydride, maleic anhydride, naphthoquinone, CO₂, and H₂O, are tabulated throughout the given temp. range for contact times from 0.05 to 0.5 sec. The kinetics of the reaction is described by the equation $-dI/dt = k_1(O_2)/(1 + k_2(P)^2)$, where P represents the reaction products. The tabulated quantities k_1 and k_2 are defined by the equations $k_1 = Ae^{-E/RT}$ and $k_2 = k_2^0 + Be^{-Q/RT}$, where k_2^0 , A, B, E, and Q are 9×10^4 , 5.13×10^4 , 2.0×10^4 , 27.4 kcal./mole, and 47.5 kcal./mole, resp. From 300 to 400° the reaction proceeds in the internal-diffusion region. The lower temp. limit of transition rises with increase of initial I concn. It is suggested that the rate-deterg. factors are the rate of desorption of reaction products and that of oxidation of the catalyst surface.

J. W. Loweberg, Jr.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 3/27

Authors : Ioffe, I. I., and Sherman, Yu. G.

Title : Study of the kinetics and mechanism of vapor-phase oxidation of aromatic hydrocarbons. Part 5. Kinetics of oxidation of naphthalin over a mixed vanadium catalyst

Periodical : Zhur. fiz. khim. 28/12, 2095-2106, Dec 1954

Abstract : The study of naphthalin oxidation kinetics with air over a mixed vanadium-potassium-sulfate catalyst was conducted with a thorough analysis of the resultant reaction products. A special isothermal method developed for this investigation is described. Formula determining the rate of reaction of naphthalin oxidation is included. It was established that at 300 - 400° the reaction is shifted into the internal-diffusion zone and the lower temperature limit of this transition increases with the increase in the basic concentration of the naphthalin. The rate of oxidation of the surface layer of the catalyst, which is regenerated during reaction with naphthalin molecules, and the desorption of reaction products are considered the determinant factors of the oxidation process. Five references ; 3 USSR and 2 USA (1935-1952). Tables; graphs; drawings.

Institution: The K. E. Voroshilov Scientific Research Institute of Org. Semiproducts and Dyes.

Submitted : December 11, 1953

NECHAYEV, G.K., kand.tekhn.nauk; VASIL'YEV, Yu.K.. kand.tekhn.nauk;
BOGAYENKO, I.N., inzh.; BEREZYUK, B.S., inzh.; SHERMAREVICH,
M.G., inzh.

Devices for temperature control in large d.c. machines.
Vest. elektroprom. 33 no.11:31-34 N '62. (MIRA 15:11)
(Electric motors, Direct current)

SIDOROVA, A.I.; KHASHODZHAYEV, A.K.; SHERSTOV, N.N.

Oriental interaction and the widening of the infrared absorption band of acetonitrile in solution. Ukr. fiz. zhur. 9 no.5:548-551 My '64. (MIRA 17:9)

1. Leningradskiy gosudarstvennyy universitet.

SHERMATOV, G.M.

Natural reproduction of undershrubs in the southwestern
Kyzylkum. Vop. biol. i kraev. med. no. 4:159-165 '63.
(MIRA 17:2)

ACC NR: AT6023566

(N)

SOURCE CODE: UR/3095/66/036/000/0202/0207

AUTHOR: Terekhin, Yu. V.; Shermazan, V. F.

ORG: None

TITLE: Instrument for determining depth ranges when measured with the "Ladoga" facsimile equipment automatic recorder

SOURCE: AN UkrSSR. Morskoy gidrofizicheskiy institut. Trudy, v. 36, 1966. Metody i pribory dlya issledovaniya fizicheskikh protsessov v okeane (Methods and instruments for studying physical processes in the ocean), 202-207

TOPIC TAGS: facsimile equipment, facsimile recording, auto recorder, data recording, ~~photo recording, signal recording~~, ocean floor topography, oceanographic equipment, oceanographic instrument, oceanography, geomorphology, individual sound equipment,

ABSTRACT: Use of the "Ladoga" facsimile equipment as a self-recording depth device has expanded considerably the possibilities for taking soundings in the ocean, as well as for carrying on marine geomorphologic and geologic research. The great difficulty encountered in the use of the equipment is the inability to determine the range (epoch) of depths measured at any given instant. While individual institutes, such as the Marine Hydrophysical Institute of the Academy of Sciences of the Ukrainian SSR, the Institute of Oceanology and the Acoustics Institute, both of the Academy of Sciences of the USSR, have a certain amount of experience in using the

Card 1/2

ACC NR: AT6023566

equipment as a precision depth recorder, the problem of determining the range of depths measured had not been completely solved. This difficulty brought about the design and the construction of a special instrument, designated the "Range Indicator,"² for use as an adaptor for the "Ladoga" facsimile equipment, the purpose of which is to measure the range and the depth proper recorded on the facsimile equipment at any given moment. The principle of operation of the "Range Indicator" is described and it is concluded that use of the instrument has facilitated equipment operation and eliminated possible errors in determining the recorded range, as well as the depth proper. Orig. art. has: 2 figures.

SUB CODE: 08/SUBM DATE: None/ORIG REF: 004

Card 2/2

ACC NR: AT6023566

(N)

SOURCE CODE: UR/3095/66/036/000/0202/0207

AUTHOR: Terekhin, Yu. V.; Shermazan, V. F.

ORG: None

TITLE: Instrument for determining depth ranges when measured with the "Ladoga" facsimile equipment automatic recorder

SOURCE: AN UkrSSR. Morskoy gidrofizicheskiy institut. Trudy, v. 36, 1966. Metody i pribory dlya issledovaniya fizicheskikh protsessov v okeane (Methods and instruments for studying physical processes in the ocean), 202-207

TOPIC TAGS: facsimile equipment, facsimile recording, auto recorder, data recording, ~~photo recording, signal recording~~, ocean floor topography, oceanographic equipment, oceanographic instrument, oceanography, individual sound equipment, geomorphology

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Card 1/2

ACC NR: AT6023566

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SUB CODE: 08/SUBM DATE: None/ORIG REF: 004

Card 2/2

KNORRING, G.M., kandidat tekhnicheskikh nauk; BELYAKOV, A.A.; KRESLIN'SH,
E.K., knzhenér; SHERMAZANYAN, Ya.T.; LEYBOVICH, D.S.

Use of PPv wires. Prom.energ. 11 no.12:22-25 D '56. (MIRA 10:1)

1. Gosudarstvennyy proyektnyy institut Tyazhpromelektroproyekt (for Knorring). 2. Gor'kovskoye otdeleniye Gosudarstvennogo proyektного instituta Elektroproyekt (for Belyakov). 3. Energosbyt Latvenergo (for Kreslin'sh). 4. Respublikanskiy proyektnyy institut, Yerevan (for Shermazanyan). 5. Trest "Moselektromontazh-2" (for Leybovich).
(Electric wire, Insulated)

SHERMAZANYAN, Yakov Tigranovich; BAUM, V.A., prof., doktor tekhn.nauk,
red.; SARKISYAN, M., red.izd-va

[Utilization of solar energy in the national economy] Ispol'-
zovanie solnechnoi energii v narodnom khoziaistve. Pod red.
V.A.Bauma. Erevan, Izd. Ob-va po rasprostraneniu polit. i
nauchn. znanii Armianskoi SSR, 1959. 42 p. (MIRA 13:1)
(Solar energy)

SHERMAZANYAN, YA.T.

RUSSIAN BOOK EXPORTATION 800/4442

Akademiya nauk SSSR, Energeticheskoye Institut
Teploenergetika, vyp. 21, Issledovaniya i inzhenernyy energii (Heat Power
Engineering, No. 21, Use of Solar Energy) Moscow, 1960. 195 p. Enrals
slip inserted. 2,500 copies printed.
Sponsoring Agency: Akademiya nauk SSSR, Energeticheskoye Institut Lenin
Otd. Enzhineroznaneyo.

Resp. Ed.: Ya. Ya. Baum, Doctor of Technical Sciences, Professor; Ed. of
Publishing House: G.B. Gorshkov; Tech. Ed.: I.N. Doroshina.

NOTES: The publication is intended for power engineers and economists
interested in the industrial utilization of solar energy.

CONTENTS: This collection of 19 articles is a continuation of an earlier
work published under the same title in 1957. The articles present results
of investigations conducted in the USSR during the last three years at
the time of the use of solar energy and yield in the Energeticheskoye
Institut AN SSSR (Power Engineering Institute of the AN SSSR) Program
is describing the operational conditions of solar engines, personnel files
the amount of solar energy received, and analysis. No personalities
are mentioned. References follow each article.

1. Yakovlev, S.P., and Ya.T. Shermazanyan. Research and Development of the
Systems of Treating ~~the~~ SSSR Thermal Power Stations 52

2. Art, S.A. Approximate Method for Determining the Efficiency of the
System of a Solar Power Station 65

3. Fomchenko, K.D. Some Problems in the Economics of Solar Power
Engineering 69

4. Yakovlev, S.P., and Ya.T. Malozemov. Investigation of Semiconductor
Rectifiers 78

5. Artemov, R.R., and D.I. Topolovskiy. Optimum Geometry of Solar Smales-
sized Thermal Rectifiers 88

6. Ushakov, A.S. Investigation of the Thermal Conductivity of Tallurides 91

7. Sokolovskiy, D.M. Determination of the Size of Thermal Storage Battery
is Paced Feeding With the Energy Generated by Solar Power Stations
card 3/4 111

8. Chern, YA. Technical Characteristics of Hot-Box Type Solar Still 122

9. K. Serebrenik. Effects of the Selective Characteristics of Absorbing
Surfaces on the Efficiency of a Solar Engine 131

10. Ya.T. Shermazanyan, and D.I. Topolovskiy. On the Objective Eval-
uation of the Efficiency of Optical Systems in Solar Power Plants 142

11. Yakovlev, S.P., V.V. Fedotkin, and M.S. Berezina. Production of
Lithium Chloride by Electrolytic Planting 149

12. Yakovlev, S.P. Operating the Optimum Angle of Inclination in Solar
Water-Heaters With Tube-Type or Flat Boilers 158

13. Yakovlev, S.P. Methods for Determining the Efficiency of Economic
Utilization of Installations Using Solar Energy 170

14. Yakovlev, S.P. Energy Bases of Solar Thermal Power Stations 179

15. Yakovlev, S.P. Library of Congress 179

JU/aw/ata
2/8/61

S/173/60/013/001/004/005
A104/A029

AUTHORS: Shermazanyan, Ya.T. and Aparisi, R.R.

TITLE: Elements of the Automatic Tracking Equipment of a Solar Thermal
Plant (STS)

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Seriya tekhnicheskikh nauk,
1960, Vol. 13, No. 1, pp. 57-70

TEXT: The plant is based on an azimuth zenith apparatus coupled with auto-
matic control equipment. The heating problem of the steam boiler by 1,293 re-
flecting mirrors can be solved by two basically different systems: direct indi-
vidual automatic sun tracking of the solar-heat units and precalculated sun track-
ing of these units. The automatic equipment is exposed to wind, rain, snow and
temperatures varying between -30°C to $+40^{\circ}\text{C}$, etc. Its cost is 10 - 12 % of the
total capital investment. The above-mentioned relay systems passed laboratory
and practical tests performed in Armenia on the area, where the first solar ther-
mal plant is to be erected. The non-relay systems just being tested present no
difficulties. The movement of the reflecting mirror shown is expressed in several
equations. The great differences between maximum and minimum values complicate

Card 1/2

S/173/60/013/001/004/005
A104/A029

Elements of the Automatic Tracking Equipment of a Solar Thermal Plant (STS)

the operation of the solar-heat units. Among photoelectric pickups used in solar thermal plants the pickup equipped with a sensitive $\Phi C - K 2$ (FS-K2) cadmium photo-resistor (Refs. 5 and 6) showed the best results. The distribution of the solar energy contained in the sun beam is irregular. There are optically and directly absorbing sun beam pickups. The first type is used for the control of azimuthal and zenith elevation adjustment of the reflecting mirrors and the second type for the control of the azimuthal movement of the reflecting mirror trolley around the boiler. Recorded data of the three-directional swiveling type ensured a $\pm 2'$ correct focusing of the sun beam. There are 10 figures and 7 Soviet references. ✓

ASSOCIATION: Energeticheskiy institut im. G.M. Krzhizhanovkogo AN SSSR (Institute of Power Engineering im. G.M. Krzhizhanovskiy of the AS USSR) and Institut energetiki i gidravliki AN Armyanskoy SSR (Institute of Power Engineering and Hydraulics of the AS of the Armyanskaya SSR)

SUBMITTED: August 12, 1959

Card 2/2

SHERMAZANYAN, Ya.

Using solar energy for melting high-purity and heat-resistant materials. Prom. Arm. 4 no.7:56-57 J1 '61. (MIRA 14:7)

1. Institut energetiki AN Armyanskoy SSR.
(Solar heating)

39534

S/196/62/000/015/005/008
E194/E155

26.2422 (also 2219)

AUTHOR: Shermazanyan, Ya.

TITLE: An automatic solar orientator

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.15, 1962, 23, abstract 15 G 154. (Ayastani ardyunaberutyuny, no.10, 1961, 70-75 (Armenian)); (Prom-st' Armenii no.10, 1961, 59-63 (Russian)).

TEXT: An automatic device is described to control the orientation of a solar power generating equipment. Graphs and design formulae are given for determining the principal angle and parameters of the optical servo-system, which rotates the equipment to follow the apparent motion of the sun. A radiation diagram is given of a chemical solar reactor installed in the Institut organicheskoy khimii AN ArmSSR (Institute of Organic Chemistry of the AS Arm.SSR) and a circuit diagram of the automatic control circuit of the orientator, also a schematic sketch of the arrangement of the parts. The principal components and operating principles are as follows. The sun's rays falling on the mirror-orientator are reflected onto a parabolic-cylindrical mirror
Card 1/2

An automatic solar orientator

S/196/62/000/015/005/008
E194/E155

concentrator which directs the rays onto the reactor filled with chemically reacting substances. Since only the luminous part of the solar spectrum is required to activate the chemical process, the heat rays are trapped by cooling water contained in the reactor jacket. Photo-electric pick-ups in the form of tubes with photo-impedances are fitted on the path between the orientator and the parabolic-cylindrical concentrator. As the sun moves a greater or lesser amount of its rays enter the tube and act on the photo-impedances which switch on electric motors to make the orientator track the sun. The pick-up has two zenith tubes, one of which is for alteration up to noon as the sun rises, and the other for the afternoon as it sets; also one azimuth and one signal tube in case there is no sunlight. An electric circuit is given of the automatic device with combinations of photo-electric, ohmic, inductive and capacitative impedances. The use of photo-electric pick-ups ensures stable operation of the solar power equipment. 7 illustrations, 5 references.

[Abstractor's note: Complete translation.]

Card 2/2

S/110/62/000/003/001/001
I004/I204

AUTHOR: Kazanchyan, G. P. and Shermazanyan, Ya. T.
TITLE: Accelerated aging test by means of a sun's ray concentrator
PERIODICAL: Vestnik elektropromyshlennosti, no. 3, 1962, 67-70

TEXT: A new method of testing insulating and protective materials designed for operation under atmospheric conditions was developed, using a stand which moves together with a set of mirrors that concentrate the sun's rays on the samples.

It is assumed that solar irradiation is the most important factor in aging insulating and protective materials. Since the energy transferred to a body by light is much greater than the energy of heat movement of the molecules, the influence of temperature on photo-chemical reactions is small; intensification of the normal solar radiation accordingly speeds up the aging without affecting its character.

Concentration was attained by 6 polished aluminum mirrors reflecting 75% of the incident radiation including the ultra-violet portion of the spectrum. The mirrors located on platforms were automatically directed toward the sun by means of differential cadmium photoresistors $\Phi C-k2$ (FS-K2). Automatic control is by the pulse tracking scheme, as developed for solar energy set-ups, with accuracy of tracking 10%. The method enables to predict speedily the durability of materials under conditions close to those encountered in practice. There are 3 figures and 8 references.

Card 1/1

L 22673-66 EWT(1)/EWT(m)/EPT(n)-2/T/EWP(t)/EWP(k)/ETC(m)-6 JD
ACC NR: AP6006191 SOURCE CODE: UR/0377/65/000/004/0005/0010

AUTHORS: Vartanyan, A. V.; Shermazanyan, Ya. T. (Candidate of technical sciences)

ORG: Armenian Basic Laboratory, All-Union Scientific Research Institute for Current Sources (Armyanskaya bazovaya laboratoriya, Vsesoyuznogo n.-i. instituta istochnikov toka)

TITLE: Investigation of ^{21,74,55}heat flow control systems in constant-power solar furnaces 46
B
194

SOURCE: Geliotekhnika, no. 4, 1965, 5-10

TOPIC TAGS: solar furnace, temperature distribution, temperature stabilization, solar radiation intensity, power optimization

ABSTRACT: The governing parameters behind a power-regulation method for a constant-strength solar furnace are discussed. The power regulation is defined by the equation $P_{reg} = A \cdot P_{max} = const$, where $A = c \cdot k = const$. The technique consists of defining c as a function of k. To this end, it is assumed that the sun can be represented as a point-radiation source, the parabolic concentrator has an idealized geometry and receives parallel beams of radiation with constant density. Three types of regulators are analyzed: a screen type regulator placed perpendicularly to
Card 1/3 2

L. 22673-66

ACC NR: AP6006191

the concentrator axis which yields, for the parameter A,

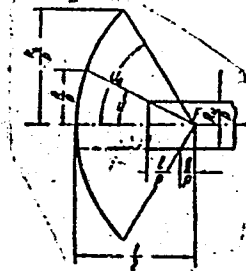
$$A = (1 - \cos \alpha) \cdot k;$$

a cylindrical type regulator which screens the external part of the reflected radiant flux, and which gives

$$A = \frac{\operatorname{arctg} \frac{\frac{R_a}{p}}{\frac{l}{p} + \frac{R_a}{p} \cdot \frac{1}{\operatorname{tg} \alpha_0}}}{\operatorname{tg}^2 \frac{\alpha_0}{2}} \cdot k;$$

where the various nomenclature are defined in Fig. 1;

Fig. 1. Schematic of a cylindrical regulator screening the external part of the radiant flux from the concentrator.



Card 2/3

L 22673-66

ACC NR: AP6006191

a cylindrical type regulator which screens the internal part of the reflected flux.
This latter one yields the equation

$$A = \left[1 - \frac{\operatorname{arctg} \frac{\frac{R_a}{P}}{\frac{1}{2} \left[1 - \left(\frac{R_a}{P} \right)^2 \right] - \frac{f}{P}}}{\operatorname{tg}^2 \frac{\alpha_0}{2}} \right] \cdot R.$$

Orig. art. has: 23 equations and 8 figures.

SUB CODE: 20/ SUBM DATE: 21Jun65/ ORIG REF: 001/ OTH REF: 001

Card 3/3 *llw*

SHERMAZANYAN, Ya.T.; NERSISYAN, T.A.

Large-scale automatic helioengineering unit for testing materials
by the method of fast radiation aging. Geliotekhnika no.5:45-50
'65. (MIRA 19:1)

1. Armyanskaya bazovaya laboratoriya Vsesoyuznogo nauchno-issledo-
vatel'skogo instituta istochnikov toka. Submitted June 16, 1965.

1 JUL 66 EWT(L)/T IJK(c) AT

ACC NR: AP6018090

(A)

SOURCE CODE: UR/0377/65/000/005/0045/0050

66 64 B

AUTHOR: Shermazanyan, Ya. T. (Candidate of technical sciences); Nersisyan, T. A.

ORG: Armenian Base Laboratory, All-Union Scientific Research Institute of Current Sources (Armyanskaya bazovaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta istochnikov toka)

TITLE: Large automatic heliotechnical installation for testing materials by the accelerated light aging method

SOURCE: Geliotekhnika, no. 5, 1965, 45-50

TOPIC TAGS: solar energy conversion, testing laboratory, nonmetal aging, material failure, material stability, light aging

ABSTRACT: The article describes the BGUS concentrator, a new type of large heliotechnical installation which has been in operation in Yerevan since 1953. (Ya.T. Shermazanyan, G. P. Kazanchyan, M. M. Markosyan, "Heliotechnical Installation for Testing Materials Aging under the Action of Solar Rays," Avt. svid. no. 139513, Byulleten' izobreteniy, 1961, no. 13). It was first proposed by the Armenian Affiliate of the All-Union Scientific Research Institute of Electromechanics as a device for accelerating light aging in the testing of electrical insulation materials. Subsequent investigations and development were conducted by the Energetics Institute of the Armenian SSR.

Card 1/2

L 38179-66

ACC NR: AP6018090

2

A special feature is its automatic tracking of the sun by the use of light-sensitive cells in differential photoelectric sensors of the ⁴FS-K type. The authors discuss such related matters as the reflectors (unique in preserving the full spectrum of solar radiation, an important facet of light aging investigations), the distribution of the radiation on the operating surface of the wall, and the problem of site selection. At the present time, smaller models (MGUS) are being developed on the basis of the BGUS. Orig. art. has: 2 figures.

SUB CODE: 20,11,10/ SUBM DATE: 16Jun65/ ORIG REF: 006

ms
Card 2/2

SHERMATOV, A. N.

Subject : USSR/Mining AID P - 336
Card : 1/1
Author : Polyanskiy, A. P.
Title : Construction defects of a tightening arrangement packer
Periodical : Neft. Khoz., v. 32, #5, 48, My 1954
Abstract : The author remarks on the comments of B. S. Tolmachev published in the Neft. Khoz., No. 4, 1953 concerning the article by M. A. Zelinskiy and A. N. Shermatov "For a Rational Construction of Equipment for the Bottom and Mouth of Gas Wells", published in the Neft. Khoz., No. 7, 1952. The author considers that the packer, shown on fig. 5, of the reviewed article, has many defects and is unsatisfactory in service.
Institution : None
Submitted : No date

MESHKOV, S.I. (Voronezh); SHERMERGOR, T.D. (Voronezh)

Temperature dependence of internal friction in forced vibrations
of a Maxwell torsion pendulum. PMTF no.1:68-75 Ja-F '61.
(MIRA 17:4)

SHERMENEV, I.; KUZNETSOVA, V.

On the banks of the Angara River. NTC 2 no.4:56-58 Ap '60.
(MIRA 13:6)

1. Zaveduyushchiye domami tekhniki pravogo i levogo beregov
stroitel'stva gidroelektrostantsii, g.Bratsk.
(Bratsk Hydroelectric Power Station)

SHANIKOV, Mikhail Kus'mich

N/5
775
.54

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THE USSR) MOSKVA, GOSFINIZDAT, 1956. 172 p. TABLES. BIBLIOGRAPHICAL
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[Finance and the issuing of credit to agricultural enter-
prises] Finansy i kreditovanie sel'skokhoziaistvennykh pred-
priatii. Moskva, Sel'khozizdat, 1963. 342 p.

(MIRA 16:5)

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So: Knizhnaya Letopis', No. 18, 1956