

ZAKAZNOV, N. P.

"Design of a Menometric Thermometer," Tr. N. -1. in-*ta* *hidrometpriborostroyeniya*,
No 3, pp 30-33, 1953

Formulas for the ratio of the central angle, volume of the filling liquid, and the spring force to the pressure of the liquid are derived for a hollow helicoidal spring. Corrections for the involved errors are given. A numerical example is presented. (PZhFiz, No 6, 1955)

Sum. No. 681, 7 Oct 55

ZAKAZNOV, N. P.
AID P - 3859

Subject : USSR/Meteorology
Card 1/1 Pub. 71-a - 22/35
Author : Zakaznov, N. P.
Title : New system of air flow measurement
Periodical : Met. 1. gidr., 6, 53-54, N/D 1955
Abstract : A mathematical analysis of the computation of the
velocity of the air flow. Three diagrams.
Institution : None
Submitted : No date

ZAKARENOV, N.P., kandidat tekhnicheskikh nauk, dotsent.

P.A. Zarubin, 1816-1886, inventor of geodetic instruments. Trudy
MIIGAIK no.20:73-75 '55. (MLRA 10:1)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i karto-
grafii, Kafedra priborostroyeniya.
(Zarubin, Pavel Alekseevich, 1816-1886)

FEFILOV, B.V.; ZAKAZNOV, N.P.

Tenth anniversary of Fedor Vladimirovich Drozdov's death. Trudy
MIIGAIK no.20:81-82 '55. (MIRA 10:1)
(Drozdov, Fedor Vladimirovich, 1889-1944)

ZAKAZNOV, H.P., kandidat tekhnicheskikh nauk, dotsent.

The mechanical action of a large-scale inverter of a photographic
rectifier having a broken optical axis. Trudy MIIGAIK no.21:55-56
'55. (MLRA 10:1)

1. Moskovskiy institut inzhenerov geodezii, Kafedra fotogrammetrii.
(Rectifiers (Photogrammetry))

ZAKAZNOV, N.

Pavel Zarubin the inventor. Trudy Inst.ist.est.i tekhn. 9:306-313 '57.

(Zarubin, Pavel Alekseevich, 1816-1886) (MLRA 10:5)

ZAKAZNOV, N.P.

PHASE I BOOK EXPLOITATION

SOV/2065

3(4)

Moscow. Institut inzhenerov geodezii, aerofotos "yomki i kartografii

Trudy, vyp. 32 (Transactions of the Moscow Institute of Geodetic
Aerial Survey and Cartographic Engineers, Nr 32) Moscow,
Geodezizdat, 1958. 130 p. 1,000 copies printed.

Ed. of Publishing House: T. A. Shamirova; Tech. Ed.: V. V. Romanova;
Editorial Board: A. I. Mazmishvili (Resp. Ed.), V. I. Avgeyevich
(Deputy Resp. Ed.), G. V. Bagratuni, N. Ya. Bobir, M. N. Voklov,
A. I. Durnev, S. V. Yeliseyev, P. S. Zakatov, G. P. Levchuk,
N. I. Modrinskiy, M. D. Solov'yev, B. V. Fefilov, and P. F. Shokin.

PURPOSE: This collection of articles is intended for geodesists,
photogrammetrists, and cartographers.

COVERAGE: This issue of the Institute's Transactions is composed of
articles on geodetic surveying, photogrammetry, cartography, and
geodesy. Surveying and geodesy are discussed in articles on
building line extensions, earthwork computations, precise trigono-

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Transactions (Cont.)

metric leveling, latitude determination, solution of trigonometric equations, and the geodetic interference comparator. Articles on photogrammetry include the subheadings photo rectification, spatial triangulation, and photo interpretation. Articles in the fields of geography and cartography include: 1) hunters' maps of Czechoslovakia, 2) maps of the Trans-Oka Region of Moscow oblast' and 3) the distribution of lakes in the East European plains and the Kola-Karelian Massif. References accompany individual articles.

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Transactions (Cont.)

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- Bogomolov, L. A. Basic Problems in Topographic Photo Interpretation of Tundra Landscapes 99
- Matorin, A. P. Methods of Solving Trigonometric Equations 107
- Gorbachev, V. N. Architectural Monuments --- The Former Home of I. I. Demidov, Presently Occupied by the Moscow Institute of Geodetic, Aerial Survey and Cartographic Engineers (Historical Sketch) 113
- Karakulina, G. A. The Theory of the Standard Geodetic Interference Comparator 125
- AVAILABLE: Library of Congress

MM/dfh
7-28-59

Card 4/4

SOV/154-58-2-11/22

AUTHOR:

Zakaznov, N. P., Docent, Candidate of Technical Sciences

TITLE:

The Kinematic Design of Central High Speed Aerial Camera Shutters (Kinematicheskiiy raschet tsentral'nogo aerofotozavora bol'shoy skorosti)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1958, Nr 2, pp 101-104 (USSR)

ABSTRACT:

The term central high speed aerial camera shutters is applied to those with an exposure time of less than $1/300$ sec. There are shutter designs in which the laminae rotate at constant speed throughout the exposure without reducing the exposure time. There is a sketch of such a shutter, which is used in the aerial camera RMK 21/18 of the firm Zeiss-Aerotopograph, and the reader's attention is drawn to the shutter produced by Fairchild, which has two groups of laminae rotating in opposite directions. The principle of a central high speed shutter of Soviet design, which has 4 "layers" of laminae, is described, and the order of kinematic calculation of this shutter is shown. The shutter is adjustable for lengths of exposure between $1/200$ and $1/1000$ sec. There are 3 figures and 2 references, 0 of which is Soviet.

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SOV/154-58-2-11/22

The Kinematic Design of Central High Speed Aerial Camera Shutters

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i
kartografii (Moscow Engineering Institute of Geodesy, Aero-
photography, and Cartography)

SUBMITTED: January 18, 1958

Card 2/2

SOV/154-58-3-17/24

AUTHOR: Zakaznov, N. P., Docent, Candidate of Technical Sciences

TITLE: Synthesis of Perspective Inverters for Photographic Rectifiers
(Sintez perspektivnykh inversorov fototransformatorov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodesiya i
aerofotos"yemka, 1958, Nr 3, pp 137-140 (USSR)

ABSTRACT: In the terminology of photogrammetry the devices used for the
scale and perspective coordination of the plane of the nega-
tive, of the objective, and of the screen are termed inverters.
This designation, however, is only correct if applied to such
devices which perform a coordination according to Newton's
(N'yuton) law $xx' = f^2$. Photo-rectifiers which perform a per-
spective coordination fall to this category only under certain
conditions. The tasks which are to be accomplished by such
rectifiers can be outlined as follows: Let two straight lines
intersecting outside the plane and a point not on either of the
lines be given. Through this point a third line is to be run as
to meet the inaccessible point of intersection of the two
straights. In this paper only one of the many methods of solv-

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80V/154-58-3-17/24

Synthesis of Perspective Inverters for Photographic Rectifiers

ing this geometric problem is presented. The device operating according to this method is the Karpant'ye inverter. It is utilized in the photo-inverters ~~PMI~~ (USSR), SEG I and SEG V (Germany) and Wild E-2 (Switzerland). Finally another method is suggested which takes into account the distance between the two cardinal planes of the lens. There are 4 figures.

ASSOCIATION: Moskovskiy inatitut inzhenerov geodesii, aerofotos"yenki i kartografii (Moscow Institute of Surveying-, Aerial Surveying-, and Cartography Engineers)

SUBMITTED: April 9, 1958

Card 2/2

3(4)
AUTHOR: Zakaznov, M. P., Docent, Candidate of SOV/154-58-5-16/18
Technical Sciences

TITLE: The Calculation of the Dimensions of a Photo-Rectifier With
an Ellipsoidal Reflector (Gabaritnyy raschet fototransforma-
tora (fotoreduktora) s ellipsoidal'nyy otzrazhatel'em)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aéro-
fotos"yemka, 1958, Nr 5, pp 173 - 178 (USSR)

ABSTRACT: In this paper the following problem is solved: The
limits of variation of the transformation coefficient
are ($n_{\min}$ and $n_{\max}$) and the maximum negative format is

$\Delta \times A$. A lens is to be selected for the apparatus (with
a focal length f and an angular field 2β), the dimensions
of the device are to be calculated and the parameters
of the ellipsoidal reflector are to be determined. As
a conclusion the designing of a great rectifier with
a "Luch" lens ($f = 180$ mm, $2\beta = 76^\circ$, distance between
cardinal planes = 3.7 mm) is investigated as a sample

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The Calculation of the Dimensions of a Photo-Rectifier With an Ellipsoidal Reflector SOV/154-56-5-16/16

problem. There is 1 figure.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Moscow Institute of Geodesy, Aerial Surveying, and Cartography Engineers)

SUBMITTED: March 17, 1958

Card 2/2

3(4)

SOV/154-58-6-13/22

AUTHOR: Zakaznov, N. P., Docent, Candidate of Technical Sciences

TITLE: The Influence by the Range Between the Principal Planes of the Objective of a Photo Correction Device Upon the Quality of Correction of Aerial Photographs (Vliyaniye rasstoyaniya mezhdu glavnymi ploskostyami ob'yektiva fototransformatora na kachestvo transformirovaniya aerosnimkov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos" - yemka, 1958, Nr 6, pp 115 - 121 (USSR)

ABSTRACT: The article was written in connection with a talk given by A. P. Mashkovich, Professor, Doctor of Technical Sciences, entitled "Some Theoretical Theses of Photogrammetry Closely Connected With the Construction of Precision Apparatus" (May 7, 1958, intermediate university consultation on the construction of geodetic, photogrammetric and aerophotographic apparatus). It is shown that the optic conjunction on the optic principal axis is not disturbed if the known value of the distance between the principal planes of the objective is considered in adjusting the planes of the negative and the screen of the rectifier. The optic conjunction on any axis of

Card 1/3

The Influence by the Range Between the Principal
Planes of the Objective of a Photo Correction Device Upon the Quality of
Correction of Aerial Photographs SOV/154-58-6-13/22

the objective is investigated for the case where the planes of the negative and the screen are not parallel to each other (perspective conjunction). The formulas (1) to (7) are derived. With their help, the error of the point position on the negative on account of inaccurate adjustment of the negative can be determined. It is shown that the perspective inversers, which do not consider the distance between the principal planes of the objective, should be adjusted in such manner that the plane Q (a plane between the two principal planes of the objective crossing the screen plane E and the negative plane N_1) which is determined by the principal planes H and H', lies in the middle between H and H'. The investigation made here offers the possibility of establishing the tolerance for the angle of inclination of the negative plane in the rectifiers, the tolerance for the compensation of negatives, etc. Finally, the photorectifier of Messrs. Baush and Lomb (USA), and its principal kinematic scheme, are pointed out (quoted from the Manual of Photogrammetry, Washington, 1954, pp 485-486).

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The Influence by the Range Between the Principal Planes of the Objective of a Photo Correction Device Upon the Quality of Correction of Aerial Photographs SOV/154-58-6-13/22

There are 4 figures, 1 table, and 3 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Moscow Institute for Geodesy, Air Survey and Cartography Engineers)

SUBMITTED: June 9, 1958

Card 3/3

ZAKAZNOV, N.P., kand.tekhn.nauk, dotsent

Scale inverter of the rectifier (projection printer). Trudy
MIIGAIEK no.32:35-36 '58. (MIRA 12:7)

1. Kafedra priborostroyeniya Moskovskogo instituta inzhenerov
geodezii, aerofotos"yanki i kartografii.
(Rectifiers (Photogrammetry))

ZAKAZHOV, N.P., dots., kand. tekhn.nauk

Plotting conical sections by a gnomonic projection. Trudy
MIIGAIK no.33:55-58 '58. (MIRA 12:8)

1.Kafedra priborostroyeniya Moskovskogo instituta inzhenernoy
geodezii, aerofotos"yemki i kartografii.
(Geometrical drawing)

3(4), 28(2)

SOV/154-59-2-14/22

AUTHOR:

Zakaznov, N. P., Docent, Candidate of Technical Sciences

TITLE:

The Use of Electrical Computers in Photogrammetric Instruments as Exemplified in Automatic Rectification of Aerial Photographs by Focusing Elements (Primeneniye elektricheskikh schetno-reshayushchikh ustroystv v fotogrammetricheskikh priborakh na primere avtomatizatsii transformirovaniya aerosnimkov po ustanovochnym elementam)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1959, Nr 2, pp 93-98 (USSR)

ABSTRACT:

The first attempts are made in the USSR and in foreign countries to instal electric computers in photogrammetric instruments. Professor G. V. Romanovskiy proposes to create a set of electrical computer elements, each of which is to solve one of the typical and most simple mathematical problems of photogrammetry. Different problems can be solved through various combinations of these elements. An example is given here. The possibility is investigated of the automation of the rectification process according to the focusing elements. The formulas (1'), (2') and (3') for these elements are derived. One of the possible

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SOV/154-59-2-14/22

The Use of Electrical Computers in Photogrammetric Instruments as Exemplified in Automatic Rectification of Aerial Photographs by Focusing Elements

schemes (Patent No 103371) for the solution of the perspective conjunction in accordance with the formulas (2') and (3') is shown in figure 1 and described. Formula (5') is then derived for the calculation of the rectification coefficient n and figure 2 shows the scheme determining n in accordance with (5'). Coefficient n is related with the focus f of the objective of the photographic rectifier and the sections x and x' , which determine the position of the surfaces of the negative and the objective, and of the screen and the objective at the main optical axis of the objective, as follows: $n = \frac{f}{x} = \frac{x'}{f}$. Herefrom the formulas (6) and (7) are derived. To secure automatically the introduction of x' and x into the photographic rectifier, it is still necessary to employ automatically functioning compensation-multiplying schemes.- Another possibility for the solution of this problem is also shown. Automatically functioning bridge-potentiometer circuits are employed. The principal diagram of such an installation is shown in figure 3 and described. The automation of introducing the linear eccentricity

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-1

SOV/154-55-2-14/22

The Use of Electrical Computers in Photogrammetric Instruments as Exemplified in Automatic Rectification of Aerial Photographs by Focusing Elements

of the negative, when rectifying in accordance with the focusing elements, has been solved in the photographic rectifier SEGV made by the Firm Zeiss-Aerotopograph. The scheme of the electro-mechanical installation used is described in the book "Photogrammetrie" by A. Buchholtz, Berlin 1954. A. N. Lobanov also describes it in "Fototopografiya", 1957, Moscow. There are 3 figures and 2 Soviet references.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Moscow Institute of Geodetic, Aerial Survey and Cartographic Engineers)

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3(4), 25(1)

SOV/154-59-5-14/17

AUTHOR:

Zakaznov, N. P., Docent, Candidate of Technical Sciences

TITLE:

Kinematic Principle of [✓]Devices Designed for the Machining of Aspherical Surfaces of Optical Parts

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yenka, 1959, Nr 5, pp 149-154 (USSR)

ABSTRACT:

The author described devices designed for the machining of optical parts with the following second-order rotational surfaces: 1) A device designed for the machining of the inner surface of ellipsoidal reflectors (Fig 1). A crank mechanism is used, which is mounted in such a manner that the connecting rod describes an ellipse when the part under treatment rotates. The corresponding mathematical parameters are determined. The device is driven by a four-membered hinge mechanism with rotating guide-pin. 2) A device used for the machining of the outer surface of an ellipsoid and of a biconcave hyperboloid (Figs 2,3). The parameters of direction were determined again. By using an enveloping plate two parallel planes are formed between which the rotating piece to be machined is fixed. The plate is elastically mounted. 3) A device used to machine the

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Kinematic Principle of Devices Designed for the Machining of Aspherical Sur-
faces of Optical Parts

SOV/154-59-5-14/17

outer surface of a paraboloid of revolution (Fig 4). This mechanism may also be used for machining outer surfaces of spheroids and hyperboloids. There are 4 figures.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Moscow Institute of Geodetic, Aerial Survey, and Cartographic Engineers)

SUBMITTED: November 24, 1958

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Case 3/4

MURAV'YEV, Mikhail Sergeyevich, dotsent; ZAKAZNOV, N.P., red.; SHAMAROVA,
T.A., red.izd-va; ROMANOVA, V.V., tekhn.red.

[Descriptive and projective geometry] Nachertatel'naya i pro-
ektivnaya geometriia. Moskva, Izd-vo geodez.lit-ry, 1960. 323 p.
(MIRA 13:12)

(Geometry, Projective)
(Geometry, Descriptive)

BOGDANOV, Yuriy Mikhaylovich; STARIKOV, I.S., kand.tekhn.nauk, retsenzent;
ROMANOV, A.D., kand.tekhn.nauk, retsenzent; ZAKAZHOV, B.P., kand.
tekhn.nauk, red.; EL'KIND, V.D., tekhn.red.; UVAROVA, A.F.,
tekhn.red.

[Precision instruments] Pribory tochnoi mekhaniki. Moskva, 3os.
nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1960. 415 p.
(MIRA 14:2)

(Measuring instruments)

S/154/60/000/02/15/018
B012/B123

AUTHOR: Zakaznov, N. P., Docent, Candidate of Technical Sciences

TITLE: Calculation of Slotted Shutters of Aerial Cameras

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1960, No. 2, pp 131-143

TEXT: Slotted shutters have certain advantages over central shutters and blind shutters, but have also drawbacks. Fig. 1 shows the construction of the slotted shutter $A\Phi A$ (AFA) which is discussed by the author in the following. The change of the moment of the winding spring as dependent on the torsion angle of the cylindrical axle for various exposures is graphically represented in Fig 2. The torsion angles were determined on the basis of Figs. 3 and 4. For computing the actual exposure times the author developed the formulas (10). If an inertial force exists, formula (12') is used for determining the time. Efficiency is computed in relation to the mechanism of the motion of the shutter, considering torsional friction. The formulas serve for determining the parameters of the shutter, which guarantee a change of the exposure time within

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Calculation of Slotted Shutters of Aerial
Cameras

S/154/60/000/02/15/018
B012/B123

a given tolerance. There are 4 figures and 3 Soviet references.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i
kartografii
(Moscow Institute of Geodetic, Aerial Survey, and Cartographic
Engineers)

SUBMITTED: December 16, 1958

Card 2/2

06015

S/154/60/000/003/008/008/XX
B012/B054

23.5000

1138

AUTHOR: Zakaznov, N. P., Candidate of Technical Sciences,
Docent

TITLE: Theory and Dynamic Calculation of Aerial-camera Shutters ¹⁰
of the Vertiporokh System

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i
aerofotos"yemka, 1960, No. 3, pp. 125-130

TEXT: Central shutters of the Vertiporokh system (3B-1 (ZV-1)) or its modernized type (M3B-1 (MZV-1)) with an aperture of 13 mm are used in topographical aerial cameras with focal distances of from 36 to 200 mm. The scheme of the ZV-1 shutter is shown in Fig. 1, and its mode of operation is explained. On the basis of theoretical investigations it is stated that the range of the variation in time of exposure lies between 1/40 and 1/120 seconds. To attain a shorter time of exposure, investigations have been made at the NIEM TsNIIGAIK and the Severozapadnoye aerogeodezicheskoye predpriyatiye (North-west Aerogeodetical Service) to modernize this shutter. The scheme of this modernized shutter (MZV-1) is

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86015

Theory and Dynamic Calculation of Aerial-
camera Shutters of the Vertiporokh System

8/154/60/000/003/006/008/XX
B012/B054

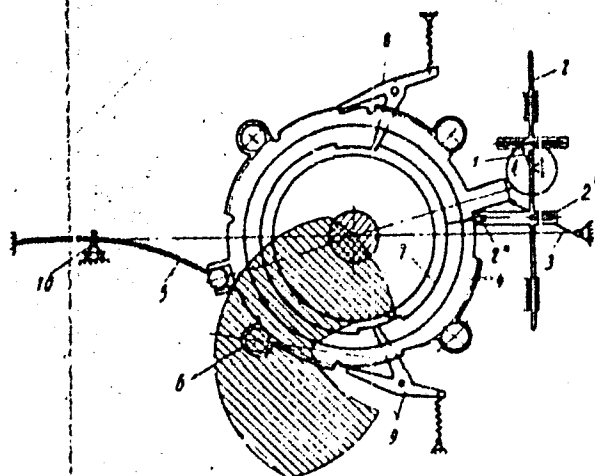
shown in Fig. 5, and its mode of operation is explained. With the aid of this shutter it is possible to reduce the time of exposure down to 1/300 sec. The design of this shutter was suggested by P. G. Izrailev, mechanic of the opticheskaya laboratoriya Severo-Zapadnogo AGP (Optical Laboratory of the North-west AGP). Fig. 6 shows the y-t diagram whose broken-line part corresponds to the time of exposure. t_e is the effective time of exposure. There are 7 figures and 1 Soviet reference.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki
i kartografii (Moscow Institute of Engineers of Geodesy,
Aerial Photography and Cartography)

SUBMITTED: November 28, 1959

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3/154/60/000/003/008/008/ZY
B012/B054



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Fig. 5

Рис. 5

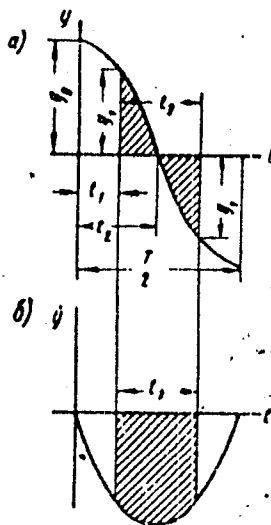


Fig. 6

Рис. 6

S/154/60/000/004/003/004
B012/B054

AUTHOR: Zakaznov, N. P., Candidate of Technical Sciences, Docent
9
TITLE: A Method of Measuring the Air Speed of Airplanes
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1960, No. 4, pp. 103-105

TEXT: In the present paper, the author describes a method of measuring the ramming pressure during the flight of an airplane by means of a lamina rotating in the air flow. The air ramming pressure can be determined by the moment of resisting forces acting on the lamina. The lamina is fixed to an axle on one side, and rotates at constant angular velocity in the air flow with the aid of an electric motor. Depending on the position of the lamina with respect to the air flow direction, the moment required to rotate the lamina varies. It is shown that the moment of resistance acting on the lamina on the part of the air flow is a function of the velocity W of this flow, the air density ρ , and the angle α determining the position of the lamina. Formula (3) is derived.

Card 1/2

ZAKHINOV, N.P., dotsent; WALKIN, L.A., dotsent

Kinematics of the machine for grinding and polishing plane surfaces
of parts of optical instruments. Izv. vys. ucheb. zav.; geod. i
aerof. no.5:133-134 '60. (MIRA 13:12)

1. Moskovskiy institut inzhenerov goodezii, aerofotos"yemki i
kartografii.
(Grinding and polishing) (Glass, Optical)

ZAKAZNOV, M. P.

Constancy of force contact in the movable units of measuring
instruments. Izv. tekhn. no. 8:13 Ag '60. (MIRA. 13:9)
(Measuring instruments)

RODIONOV, B.N., dotsent, kand.tekhn.nauk; ZAKAZNOV, N.P., dotsent,
kand.tekhn.nauk

Central band type shutters for aerial photographic cameras. Trudy
MIIGAIK no.39:15-24 '60. (MIRA 13:8)

1. Kafedra aerofoton"yemki Moskovskogo instituta inzhenerov geodezii,
aerofotos"yemki i kartografi. (Shutter, Photographic)

ZAKAZNOV, N.P., dotsent, kand.tekhn.nauk

Slit retification of aerial photographs in case of parallel position and constant spacing of the negative and screen planes.
Izv. vys. ucheb. zav.; geod. i aerof. no.3:139-144 '61.

(MIRA 14:10)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii.

(Rectifiers(Photogrammetry))

ZAKAZNOV, N.P.

Projective geometry in the solution of problems in geometrical optics. Izv. vys. ucheb. zav.; geod. i aerof. no.5:111-115 '61. (MIRA 15:3)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii.

(Optics, Geometrical)

GEVONDYAN, Tigran Arutyunovich; KISELEV, Lev Timofeyevich; RYANOV, B.A.,
doktor tekhn. nauk, prof., retsenzent; ZAKAZNOV, N.P., kand.
tekhn. nauk, retsenzent; DOBROGURSKIY, S.O., doktor tekhn.
nauk, prof., zasl. deyatel' nauki i tekhniki, red.;
YELISEYEV, M.S., red. izd-va; MODEL', B.I., tekhn. red.

[Devices for measuring and recording vibrations] Prihory dlia
izmereniia i registratsii kolebani. Moskva, Mashgin, 1962.
467 p. (MIRA 15:4)

(Vibration--Measurement)

ZAKAZNOV, N.P.

Functional helical cylindrical torsion spring. Priborostroenie no.7:
10-11 JI '62. (MIRA 15:7)
(Springs (Mechanism))

ZAKAZNOV, N.P., kand. tekhn. nauk, dotsent

Basis for the parameters of a multiplex. Trudy NIIGAIIK no.50:
35-38 '62. (MIRA 16:7)

1. Kafedra priborostroyeniya Moskovskogo instituta inzhenernoy
geodezii, aerofotos"yemki i kartografii.

(Projectors)

(Photographic interpretation—Equipment and supplies)

DROB'SHEV, Fedor Vasil'yevich; ZAKAZNOV, N.P., red.; VASIL'YEVA,
V.I., red.izd-va; ROMANOVA, V.V., tekhn. red.

[Principles of airborne photographic surveying and photo-
grammetry] Osnovy aerofotos'emki i fotogrammetrii. Izd.2.,
dop. Moskva, Gosgeoltekhizdat, 1963. 258 p.

(MIRA 16:8)

(Aeronautics in surveying)
(Photographic surveying)

ZAKAZNOV, N. P.

"Production and testing of aspheric surfaces on optical component parts."

report submitted for the 3rd Intl Measurement Conf & 6th Intl Instruments & Measurements Conf, Stockholm, 14-19 Sep 64.

ZAKAZNOV, Nikolay Petrovich; SIKACHEV, V.A., retsenzent; SHOKIN,
S.P., red.

[Shutters for aerial photography cameras] Zatvory aerofoto-
apparatov. Moskva, Nedra, 1965. 84 p. (MIRA 18:8)

SOURCE: *Prilozheniya*, v. 4, no. 4, 1965, 53-57

TOPIC TAGS: automation, electric motor, mathematic analysis.

ABSTRACT: Asynchronous electric motors which have nonlinear mechanical characteris-
tics. This complicates the problem of

L 31457-66

ACC NR: AP6023097

SOURCE CODE: HU/0031/66/000/002/0033/0039

AUTHOR: Zakaznov, N. P. (Professor)

ORG: Institute for Geodetic Aerial Photography and Cartography, Moscow

TITLE: Analysis of optical systems with the aid of equivalent mechanisms

SOURCE: Finomechanika, no. 2, 1966, 33-39

TOPIC TAGS: optic lens, optic analysis, optic equipment component

ABSTRACT: A technique was described for determining the focal length of a lens by a graphical analysis technique as a function of lens parameters (such as thickness, radius, and refractive index). It was shown that the determination can be simply achieved by utilizing the analogy between the existing relations and their simulation with a pantographic device. Examples were discussed to illustrate the applications of the technique. The Russian manuscript was translated into Hungarian by Artinger, Istvan. Orig. art. has: 12 figures and 22 formulas. [JPRS]

SUB CODE: 17, 20 / SUBM DATE: none / SOV REF: 005

Cord 1/1 JT

0975

73024

L 40183-66 ENT(1) GW

ACC NR: AP6030049

SOURCE CODE: HU/0031/66/000/004/0117/0125

AUTHOR: Zakaznov, N. P. (Professor)

ORG: Institute for Geodetic Aerial Photography and Cartography, Moscow

TITLE: Manufacture of optical elements

SOURCE: Finomechanika, no. 4, 1966, 117-125

TOPIC TAGS: optic element, optic equipment component, mechanical engineering

ABSTRACT: The author discusses a means for machining the interior surfaces of ellipsoidal light reflectors, means for machining the exterior surfaces of ellipsoidal and hyperbolical reflectors, means for machining external parabolical surfaces, means for machining convex non-spherical surfaces, means for machining convex hyperbolical surfaces, means for preparing non-spherical surfaces of small curvature, means for machining convex spherical surfaces, and a bench for polishing and grinding of optical plane surfaces. Orig. art. has: 21 figures and 17 formulas

[JPRS: 36,559]

SUB CODE: 10, 13 / SUBM DATE: none

Card 1/1 *MLP*

0918 0643

ACC NR: AF6030511

SOURCE CODE: HU/0031/66/000/003/0071/0075

AUTHOR: Zakaznov, N. P. (Professor)

ORG: Institute for Geodetic Aerial Photography and Cartography, Moscow

43
B

TITLE: Application of the theorems of projective geometry for the verification of the theories of geometrical optics ✓

SOURCE: Finomechanika, no. 3, 1966, 71-75

TOPIC TAGS: projective geometry, geometric optics, optic system, graphic technique

ABSTRACT: This article is the Hungarian translation of a Russian text by ROMVARI, Pal, Dr., Candidate. A method was described for the graphical rendering of images suitable in the approximative analysis and synthesis of optical systems on the basis of the analogies existing between projective geometry and geometrical optics. Discussed were: the equation for the determination of the conjugated points of the axis relative to the focal points and the principal point; equivalent system of two optical systems with common axis; construction of the image by a tele-objective; and transfer from infinitely thin lenses to lenses of finite width. Orig. art. has: 10 figures and 14 formulas. [JPRS]

SUB CODE: 20, 12 / SUBM DATE: none / OSV REF: 004 / OTH REF: 002

Card

1/1 MLP

0718 1590

ACC NR: AM6014444

Monograph

UR/

Zakaznov, Nikolay Petrovich

Shutters for aerial photographic equipment (Zatvory aerofotoapparatov)
Moscow, Izd-vo "Nedra," 1965. 84 p. illus., biblio. 1000 copies
printed.

TOPIC TAGS: aerial photography, aerial camera, topographic camera,
camera shutter

PURPOSE AND COVERAGE: This monograph is devoted to the design of
several types of aerial-camera shutters, descriptions of their
operational requirements, and prospects for their improvement. It
is based on a lecture course given by the author in the Moscow
Institute of Engineers of Geodesy, Aerial Photography, and Cartog-
raphy (MIIGAik), and summarizes the author's research on the calcu-
lation of aerial camera shutter parameters, and on shutter design,
published previously in a number of specialized journals. This book
is intended for engineers and technicians in the design offices of
factories belonging to the optical instrumentation industry, the
corresponding scientific research institutes, for students specializing
in instrumentation and aerial photogeodesy in institutes of advanced
geodetic education.

Cord 1/3

UDC: 528.711.112 : 771.36

ACC NR: AM6014444

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3. Operational requirements for aerial-camera shutters -- 14

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ACC NR: AM6014444

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SUB CODE: 14,08/ SUBM DATE: 02Mar65/ ORIG REF: 020/ OTH REF: 009
Card 3/3

RUSINOV, Mikhail Mikhaylovich; ZAKAZNOV, M.P., red.

[Nonspherical surfaces in optics] Nesfericheskie po-
verkhnosti v optike. Moskva, Nedra, 1965. 194 p.
(MIRA 18:5)

ZAKAZNOV, N.P., kand. tekhn. nauk, dotsent

Preparation of aspheric surfaces of optical parts (convex two-sheet hyperboloids of revolution and aspherics of slight curvature). Izv. vys. ucheb. zav.; geod. i aerof. no.4: 143-149 '63. (MIRA 17:9)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yenki i kartografii.

h3h7u

S/076/62/036/012/014/014
B101/B180

#.6.200
AUTHORS:

Rozlovskiy, A. I., Strizhevskiy, I. I., and Zakaznov, V. F.
(Moscow)

TITLE: Safe high-pressure mixer for highly explosive gas mixtures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 12, 1962, 2809 - 2910

TEXT: A high-pressure gas mixer (Fig.) consisting of a thick-walled 3-liter steel vessel calculated for a static pressure of 800 atm with a safety coefficient of 2, is suggested for experiments with highly explosive gas mixtures up to a pressure of 70 - 80 atm. All parts are made of metal, to avoid spontaneous ignition due to electrostatic charges. To avoid formation of acetylenides, no copper or bronze is used. Three models have been found suitable for the examination of gas combustion processes. It is recommended for laboratories. There is 1 figure.

ASSOCIATION: Gosudarstvennyy institut azotnoy promyshlennosti (State
Institute of the Nitrogen Industry)

Card 1/2

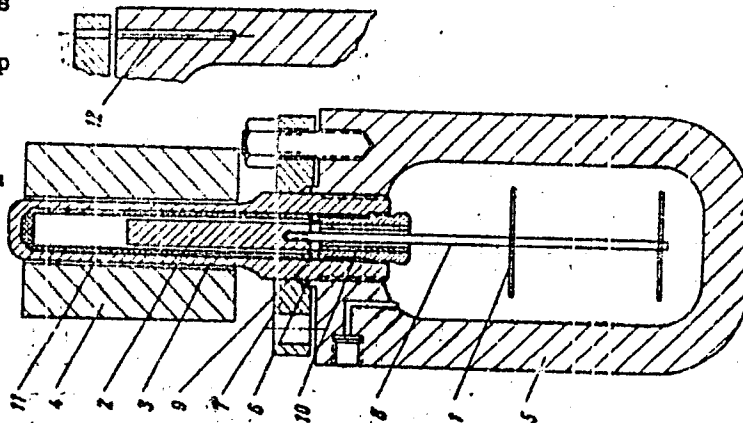
Safe high-pressure mixer . . .

S/076/62/036/012/014/014
B101/B180

SUBMITTED: April 2, 1962

Fig. Mixing vessel.

Legend: (1) Stirrer arms made of aluminum foil; (2) stirrer core; (3) top of the vessel, made of nonmagnetic 1X18N9T (1Kh18N9T) steel; (4) solenoid for driving (2); (5) steel vessel; (6) aluminum packing; (7) flange; (8) Duraluminum shaft of stirrer; (9) bushing; (10) Duraluminum bushing of stirrer; (11) lead liner; (12) thermocouple.



Card 2/2

STRIZHEVSKIY, I.I.; ZAKAZNOV, V.F.

Losses of acetylene with carbide silt in carbide to water
acetylene generators. Zhur. prikl. khim. 36 no.9:2093-
2095 D '63. (MIRA 17:1)

ZAKAZNOV, V.F. (Moskva); ROZLOVSKIY, A.I. (Moskva); STRIZHEVSKIY,
I.I. (Moskva)

Limits for the extinction of deflagration flame by means of
granulated and porous materials. Inzh. zhur. 3 no.2:280-287
'63. (MIRA 16:6)

(Fire extinction)

STRIZHEVSKIY, I.I., kand.khimicheskikh nauk; ZAKAZNOV, V.F.

Industrial fire barriers. Zhur. VKHO 9 no. 3:259-270 '64.
(MIRA 17:9)

L 05389-67 EWT(1)/EXT(m)/LWT(j) WW/JW/JWD/WE/RM

ACC NR: AP6029764

(A)

SOURCE CODE: UR/0414/66/000/002/0109/0110

AUTHOR: Zakaznov, V. F. (Moscow); Rozlovskiy, A. I. (Moscow); Strizhevskiy, I. I. (Moscow)

ORG: none

TITLE: Effect of gas motion on quenching limits of flames in narrow channels

SOURCE: Fizika goreniya i vzryva, no. 2, 1966, 109-110

TOPIC TAGS: combustion, flame quenching, flame control, heat theory

ABSTRACT: The effect of motion on the quenching limits of flames in narrow channels was studied at 1 atmosphere pressure, in 34-212 cm/sec range of the normal flame velocity (u_n), 0.37-10.0 mm range of the diameter of the flame quenching channels, and a wide range of thermal conductivity of the combustible mixtures. The object of the work was to examine the universality of the Ya. B. Zel'dovich gas combustion theory. Combustible mixture components CH_4 , C_3H_8 , H_2 , C_2H_2 , and C_2H_4 were used as air and oxygen served as oxidizing agents. It was found that the quenching limits, in all cases agreed well with those predicted by the Zel'dovich theory. Thus, it is concluded that the Zel'dovich theory is quite universal as it applies to the gas combustion in a stationary system as well as to combustion involving gas mixture motion in a narrow channel and internal turbulence in the gas mixture during the combustion process. Orig. art. has: 1 table.

SUB CODE: 21/ SUBM DATE: 24Dec65/ ORIG REF: 003/ OTH REF: 001

Card 1/1

ACC NR: AP7004635

SOURCE CODE: UR/0288/66/C00/003/0066/0072

AUTHOR: Zake, M. V.; Straupmane, V. E.

ORG: Power engineering institute, AN Latvian SSR (Institut energetiki, AN Latviyskoy SSR).

TITLE: The effect of solid particle additions on the electric conductivity of high-temperature nitrogen jets

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1966, 66-72

TOPIC TAGS: plasma conductivity, plasma jet, high temperature plasma, *plasma arc, electric conduction*

ABSTRACT: The results are presented of an experimental investigation of high-temperature nitrogen jets containing C, CaU, Cu, Mg, and MgO particles. A nitrogen jet was produced by an arc heater (see Fig. 1). The plasma arc was ignited between two graphite electrodes. In the course of experiments the anode surface was heated to 2000--2500K. Next to the heater was a mixing chamber intended for equalizing the temperature and current pulsations. Inner walls of the chamber were made of graphite which, to reduce thermal losses, were insulated from the cooling walls of the chamber by a layer of MgO powder. A quartz channel with a conductance measuring coil was attached to the mixing chamber. Additions to the nitrogen jet were introduced through an aperture in the cathode or through the mixing chamber. The experiments have

Card 1/3

UDC: 537.311.37.546.17

ACC NR: AP7004635

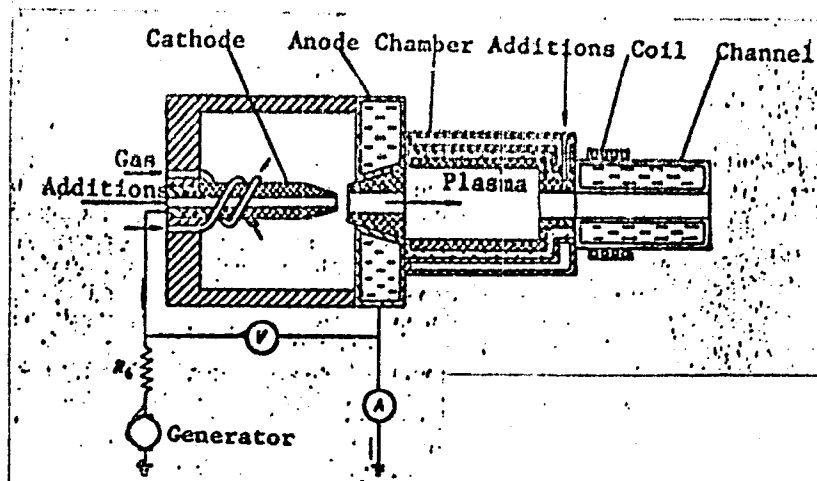


Fig. 1. Schematic drawing of the plasma arc heater

Card 2/3

ACC NR: AP7004635

shown that at temperatures up to 2800K an addition to the plasma jet of dispersed MgO, CaO and graphite particles does not make it possible to obtain a conductivity higher than that obtained with additions of the same weight concentration of potassium. At temperatures above 2800°K an addition of metallic copper and manganese particles causes no increase in the electric conductivity of the gas. An addition of graphite and manganese particles in the presence of oxygen increases the conductivity, however this conductivity does not exceed that caused by potassium additions. At temperatures up to 2000K or when the copper and manganese particles are rather slowly heated, the particle addition causes an absorption of free electrons emitted by the anode and thus reduces the conductivity. Thermo-electric emission from the surface of the hot anode produces a space charge in the gas and a conductivity higher than that produced by additions of potassium and dispersed particles. A further study is recommended of the electric conductivity of gases to which dispersed particles are added whose dimensions do not exceed 100 Å. Orig. art. has: 5 formulas and 6 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 005

Card 3/3

BENEDIK, Martin; ZAKELJ, Vladimir

Intralobar pulmonary sequestration. Zdrav. vestn. 33 no.8:
195-198 '64

1. Kirurgicna klinika medicinske fakultete v Ljubljani (Pred-
stojnik: prof. dr. M. Benedik).

ZAKKLJ, Vladimir

Clinical picture of colonic malrotation. Zdrav. vestn. 33 no.8:
201-204 '64

1. Kirurgicna klinika medicinske fakultete v Ljubljani (Pred-
stojnik: prof. dr. M. Benedik).

ZAKELJ, Alenka

SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: [not given]

Affiliation: Surgical Clinic of the Medical Faculty (Kirurgiona Klinika
Medicinske Fakultete), Ljubljana; Director (Predstojnik):
Prof Dr Bozidar Lavric

Source: Ljubljana, Zdravstveni Vestnik, Vol XXX, No 1-2, 1961, pp 16-17

Data: "The Causes of Deviation in Activity Estimation of Diastase
by Somogyi's Method."

Authors:

ZAKELJ, Alenka
GROS, Marijan

ZAKELJ, V.

Spontaneous rupture of the esophagus. Acta chir. iugosl. 1 no.1-2:
152-157 1954.

1. Kirurška klinika Medicinske Fakultete v Ljubljani. (Predstojnik
prof. Dr. B. Lavric)

(ESOPHAGUS, rupt.

*spontaneous, surg.)

ZAKELJ, Vladimir

Tumor glomus carotici. Zdrav. vest., Ljubljana 23 no.9-10:
222-223 1954.

1. Kirurgiona klinika Medicinske visoke šole v Ljubljani, predstojnik
prof. dr. Bozidar Lavric.
(CAROTID BODY, neoplasms
surg.)

ZAKENFEL'D, G. K.; LINIYA, G. P.

Local anesthetic aerosol therapy in chronic suppurative pulmonary diseases and secondary inflammatory processes in cancer of the lung.
Vop. klin. lech. zlok. novooobraz. 7:211-224, '61.

1. Sektor onkologii (zav. — kand. med. nauk V. M. Bramberga) Instituta eksperimental'noy meditsiny AN latviyskoy SSR (dir. — akad. Latv. SSR P. Ya. Gerke) Respublikans aya klinicheskaya bol'nitsa im. P. P. Stradynya (glavnyy vrach, L. G. Shcherbakova).

(LUNG NEOPLASMS ther) (ANTIBIOTICS ther)
(AEROSOLS ther)

ZAKER, P.

Mineral oil bitumens in the briquette industr.

p. 182 (Magyar Kemikusok Lapja. Vol. 12, no. 5/6, May/June 1957, Budapest, Hungary)

Monthly Index of East European Accessions (EMAI) IC. Vol. 7, no. 2,
February 1958

24488 F

ZAKES, F.

From the works of the Studies Bureau of the Central Office of Rural Construction Plans.

p. 31 (Budownictwo Wiejskie) Vol. 7, No. 4, July/Aug., 1955, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (ETAI) LC, VOL. 7, NO. 1, JAN. 1958

ZAKSEVA, S. Kh.--

"The Structural-Mechanical Properties and Phase Transformations of Models of Soap Consistent Greases." Cand Chem Sci, Inst of Physical Chemistry, Acad Sci USSR, 4 Nov 54. (VM, 22 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

RAMM, V.M.; ZAKHETM, A.Yu.

Reply to the remarks of V.V. Kafarev on the article "Concern-
ing a theory of mass transfer." Zhur. prikl. khim. 36 no.10:
2318-2320 0 '63. (MIRA 17:1)

807/0-3-0-1/1

AUTHORS: Ramm, V.M., Candidate of Technical Sciences, Zakgaya, A.Yu.

TITLE: Theory and Technique of Absorption (Teoriya i tekhnika absorbtzii)

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1958, Vol III, Nr 6, pp 715-724 (USSR)

ABSTRACT: The absorption of gases has been for more than 100 years by the chemical industry, but several important problems are yet to be investigated. The principal works of the last 4 - 5 years are discussed here. Levich [Ref. 6] has developed a film theory which states that a film forms at the interface of the phases. The formation of the film could not be proved, however. The theory of non-stationary diffusion [Ref. 8] assumes that fresh liquid moves to the interface and removes liquid which has already interacted with the gas. If there is a chemical interaction between the liquid and the gas the speed of absorption increases. The equation derived has been experimentally tested by the absorption of CO₂ in a NaOH solution. Absorption apparatuses may be divided into surface, bubbling and spraying types. Surface absorbers are mostly columns with inserts the efficiency of which

Card 1/3

Theory and Technique of Absorption

SCV/63-3-6-1/13

depends on the gas speed and on a low hydraulic resistance. Rings which serve as inserts (Figure 1) should have large size, a low height and a low surface tension (Figure 2). Bubbling absorbers are most efficient under foaming conditions. The height of the foam layer increases at gas speeds from 0.7 to 1.2 m/sec. At higher values it decreases again. The absorption of SO_2 in the production of sulfuric acid by the contact method has been tested in an apparatus of 2,500 x 2,500 mm. The degree of absorption was 99.2 - 99.7%, the resistance of the apparatus 290 - 350 mm of water column, the heat transmission to the cooling water 800 - 1,000 kcal/m² · h · °C. Spraying absorbers are towers with nozzles for the spraying of the liquids. They are used in the absorption of fluorine, in the production of sulfuric acid, etc. The operating condition of these devices is very irregular, especially, if the gas speed is low. It is recommended to equalize the gas flow by a grid or a diffuser. Many absorption processes are studied on models, but the

Card 2/3

Theory and Technique of Absorption

SOV/65-1-5-4/45

methods of modeling are not yet fully developed.
There are 4 diagrams, 3 graphs, and 100 references, 52 of which
are Soviet, 33 English, 13 American, 1 Canadian, and 1 French.

Card 3/3

ZHAVORONKOV, N.M.; RAMM, V.M., kand.tekhn.nauk; GIL'DENBLAT, I.A., inzh.;
ZAKHRYM, A.Yu., inzh.

Relationship between the number of irrigating streams and the
effectiveness of absorption in packed towers. Khim.mash. no.1:
21-24 Ja '60. (MIRA 13:5)

1. Chlen-korrespondent AN SSSR (for Zhavoronkov).
(Packed towers)

RAMM, V.M., kand.tekhn.nauk; ZAKOBYM, A.Yu., inzh.

Investigation of the absorption of readily soluble gases on
regular packings. Khim.mash. no.6:9-14 E-D '60. (MIRA 13:11)
(absorption) (Packings (Mechanical engineering))

ZHAVORONKOV, N.M.; RUM, V.M.; GIL'DENBLAT, I.A.; ZAKHEV, A.Yu.

Effect of the initial distribution of irrigating liquid on
the efficiency of absorption on packed columns. Trudy INGTI
no.33:84-91 '61. (MIRA 14:10)

(Packed towers)
(Absorption)

GIL'DENBLAT, I.A.; GUROVA, N.M.; ZHAVORONKOV, N.M.; ZAKCEYI, A.Yu.;
RAMM, V.M.

Effect of the height of packing layer and of the method of
reflux distribution on the effectiveness of absorption in
packed columns. Khim. prom. no.5:362-366 My '63.
(MIRA 16:8)

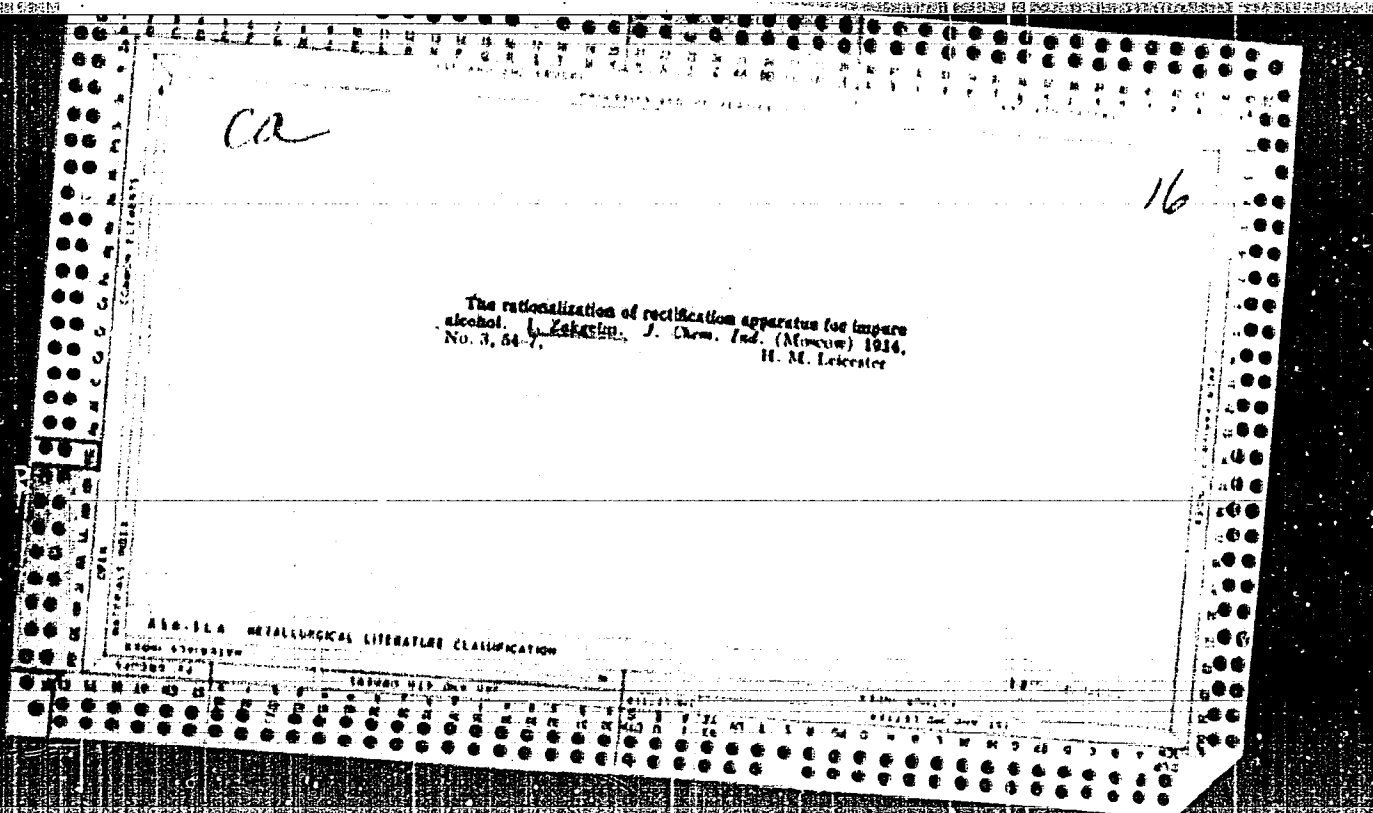
RAMM, V.M.; ZAKGEYM, A.Yu.

On a theory of mass transfer. Zhur. prikl. khim. 36 no.9:
2088-2091 D '63. (MIRA 17:1)

GIL'DENRAT, I.A.; GUROVA, N.M.; ZHAVORONKOV, N.M.; ZAKHEYM, A.Yu.;
RAMM, Y.M.

Studying the effect of the packing height and method of
irrigation distribution on the efficiency of absorption
in packed towers. Trudy MKHTI no.40:35-47 '63.

(MIRA 18:12)



1ST AND 2ND SECTIONS		PROCEDURE AND PROPERTIES PAGE	
ca		10	
Ethyl ether. I. G. Zolotarev and A. V. Savitskiy U.S.S.R. 65,044, Aug. 31, 1945. Alc. vapors at 125-30° are etherized in the presence of H₂SO₄. Into the etherizer is fed liquid alc. together with its vapor. The excess heat from the vapor is spent to vaporize the liquid alc. This method does away with the Pb coils in the etherizer which greatly impede the process. M. Hirsch			
ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION			
SOURCE INFORMATION		EXCERPTING	
EXCERPTED BY EXCERPTED FOR		EXCERPTED BY EXCERPTED FOR	

ZAKOEYM; I.

23836 VNEDRENIYE LYUMINESTSENTNOGO OSVESHCHENIYA V TSEKHAKH
TSVETNOY PECHATI. POLICR. PROIZVODSTVO, 1949, NO. 4,
S. 19-23

SO: LETOPIS' NO. 31, 1949

Papir og Høymateknika
Paper and Printing
vol. 2 1960
no. 12 december

30

1. Background

Possibilities for saving materials in electric power economy in printing plant (From the Russian) ...

METALLURGICAL LITERATURE CLASSIFICATION

1. ZAKHMEY, I.R.
2. USSR (600)
4. Electric Engineering - Safety Measures
7. Electrical safety measures in shops of printing plants, Poligr. proizv. no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL, 1953, Uncl.

Electrolytic condenser. L. N. Zolgerin and N. S. Gulin. Russ. 44,107, Oct. 31, 1955. Al electrodes are subjected to electrolysis in an aq. soln. of $(\text{NH}_4)_2\text{CO}_3$ and then placed between layers of a material satd. with a soln. of $(\text{NH}_4)_2\text{CO}_3$ in alcohol.

ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION

Electrolytic condenser. L. N. Zakharov. Russ. 80, 801, Mar. 31, 1937. The Al electrodes of a condenser connected with an a. c. current supply which were oxidized with a current tension 4-6 times higher than the operating tension are placed in a liquid electrolyte which saturates the fibrous lining.

PA 156T105

USSR/Physics - Capacitors, Electrolytic
Capacitance Feb 50

"Temperature Dependence of the Capacity of Electro-
lytic Condensers," L. N. Zakeym, 15 pp

"Zhur Tekh Fiz" Vol XX, No 2

Discusses specific volume (cu cm/m^2) versus vol-
tage, various equivalent schemes for the electric
condenser, effective capacity versus frequency for
various schemes, and capacity versus temperature
for various electrolytic condensers. Considers
equivalent schemes that take into account capacity
of the anode relative to the cathode, which permit

156T105

USSR/Physics - Capacitors, Electrolytic Feb 50
(Contd)

Calculation of dependence of equivalent series ca-
pacity, effective capacity, and tangent of angle of
dielectric loss on frequency and resistance of
layer fed by electrolyte. Submitted 5 Jun 49.

ZAKEYM, L. N.

156T105

ZAKOEYM, L. N.

PHASE X

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 607 - X

BOOK

Call No.: AF645588

Author: ZAKOEYM, L. N.

Full Title: ELECTROLYTIC CAPACITORS

Transliterated Title: Elektroliticheskiye kondensatory

PUBLISHING DATA

Originating Agency: None

Publishing House: State Power Engineering Publishing House

Date: 1954

No. pp.: 243

No. of copies: 5,000

Editorial Staff

Appraisers: Y. A. Gaylish and V. T. Renne; Others: L. G. Godes,
G. D. Nikolayeva and Ya. M. Ksendzov.

PURPOSE AND EVALUATION: The book is written for engineers and technicians in workshops and laboratories of factories producing and applying electrolytic capacitors, for scientific workers of research institutes who work on radio parts, and also for advanced students of that branch of science in institutions of higher education. The last two parts of the book can be used for the training of technicians, foremen, inspectors and other personnel. The book is well compiled and richly illustrated. Its general plan is similar to the book Electrolytic Capacitors, by Paul McKnight Deely (The Cornell-Dubilier Electric Corporation, So Plainfield, N. J., 1938). By comparing the books it becomes

1/8

Elektroliticheskiye kondensatory

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obvious that some of the illustrations are taken from Deely's book. However, the Russian book has more material than similar English language books like Deely or Electrolytic Condensers, by Philip Ray Coursey (London, Chapman & Hall, 1937) and The Electrolytic Capacitor, by Alexander M. Georgiev (Murray Hill Books, N. York. Toronto, 1945). In particular, it introduces a much more detailed exposition of the equivalent circuit analysis, and in its first two parts presents much more theory and mathematical and chemical formulas and data than the above-mentioned books. This can be explained by the fact that the book was written to serve also as a textbook for students of institutions of higher education and, therefore, contains a certain amount of background material and theoretical data needed for a thorough study of the subject.

TEXT DATA

Coverage: The main object of the book is to describe the construction, manufacture, function and testing of wet and dry electrolytic capacitors of both polarized and non-polarized types. The author presents an exposition of contemporary theories, particularly the theories on the nature of the dielectric film on the vent metals. The author explains the operating characteristics of the various types of electrolytic capacitors used in industry. He devotes the major part of

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his exposition to aluminum capacitors, since they are the most widely used. He also briefly introduces Tantalum capacitors as developed by General Electric Company and Bell Laboratories in the U.S.A., stating, however, that despite several valuable properties of tantalum as a vent metal, the difficulties in obtaining pure tantalum greatly limit the application of this type of capacitor in the USSR. The author presents several types of electrolytic capacitors used in radio receiver and transmitter circuit networks, in sound systems and other electronic apparatus, in telephone circuits and increasingly in conjunction with electric motors and a number of other industrial applications. In particular, he describes and illustrates Soviet-made capacitors of the OM- and M- groups and of the KE-1, KE-2, KE-3, KEG-1 and KEG-2 types.

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No. of References: 53 (1 - 1902, 27: 1930-1939; 17: 1940-1949;
8: 1950-1952) of these 9 are non-Russian, and among the Russian
titles some may be translations.

Facilities: Besides the persons named in the preface as contributors
and appraisers, several names are mentioned in the text but in all
or most cases relating to the authors of the list of references.

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ZAKGEYM, L.N.

USSR/Physics - Electric resistance, surface

FD-896

Card 1/1

Pub 153-5/26

Author : Zakgeym, L. N., and Polteva, N. D.

Title : Effect of the insulator's shape on the magnitude of its surface resistance

Periodical : Zhur. tekhn. fiz. 24, 1205-1208, Jul 1954

Abstract : In order to increase the surface resistance, which usually drops sharply at high relative humidity, the usual cylinder of glass or ceramic is given a "skirt" shape. This shape is found to increase substantially the surface resistance. One reference. Tables; graphs.

Institution : --

Submitted : February 25, 1954