

ZAGREANU, I., dr.; SUCIU, I., dr.; MAZILU, A., dr.

Observations on the incidence of arterial hypertension in a rural environment. Med. intern. 14 no.2:161-165 P '62.

1. Lucrare efectuata in clinica medicala I, Cluj (director: acad. Aurel Moga).

(HYPERTENSION statistics)  
(RURAL HEALTH)

(ENVIRONMENT)

MAZILU, Alexandru, ing.

Economic calculation of the headwater channels. Energetica Rum  
11 no.7:344-349 J1 '63.

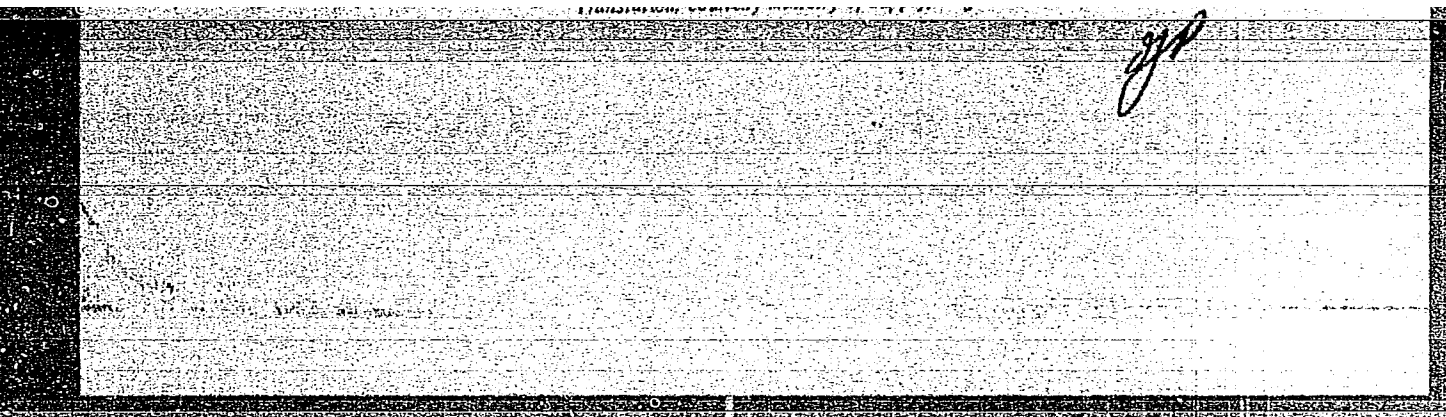
MAZILU, K.

2105. Mazilu, K. The three-dimensional calculation of frame-works with principal longitudinal and secondary transverse beam members (in Russian), *Nauka v Rum. Nar. Resp.* no. 2, 173-198, 1953; Rev. no. 1679; *Ref. Zh. Mekh.* 1956.

The static calculation is described of a system consisting of a series of reinforced-concrete spans supported on columns. The method of angular deformations is applied. The calculation is-

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001033120018-2



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CIA-RDP86-00513R001033120018-2"

MAZILU, Nicolae

Technical and organizable plan of action in Rumanian plants. Munca  
sindic 7 no.2:18-21 F '63.

1. Responsabil al comisiei pentru problemele intrecerii socialiste  
a comitetului sindicatului uzinelor "Otelul Rozu", regiunea Banat.

ROMANIA / Farm Animals. Cattle. Q

Abs Jour : Ref Zhur & Biologiya, No 2, 1959, No. 7371

Author : Baies, A.; Mazilu, V.

Inst : Timisoara Institute of Agronomy

Title : The Influence of Temperature on the Udder as a Factor Raising the Percentage of Fat in the Milk of Cows

Orig Pub : Anuarul lucrar. stiint. Inst. agron. Timisoara, Bucuresti, 1957, 229-237

Abstract : In order to raise the milk's fat content in cows, warm compresses were employed in one group, in another hot applications. Eighteen cows took part in the experiments, divided into 3 groups. At the first stage the preparation of the udder for milking consisted in its being washed with water of the same temp-

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MAZILU, V.

(6)

RUMANIA

Prof Gh. LUPASCU, Dr Aspasia BOSSIE-AGAVRILOAEI, Dr M. SNOLINSKI, Dr Eugenia NEGULICI-BALLIF, Dr Piereta CONSTANTINESCU, Biologist Tr. ISFAN, Dr D. PETREA, Dr V. MAZILU and Dr V. ROMAN; Institute "Dr. I. Cantacuzino," Laboratory of Malaria and Pathogenic Protozoa (Laboratorul de malarie si protozoare patogene) Center of Sanitation of Paludism (Centrul de impaludare terapeutica) "Berceni", Hospital (Spitalul) "Ch. Marinescu" and Malaria Stations (Statiile de malarie.)

"The Problem of Quartan Malaria and the Malaria Eradication Program."

Bucharest, Microbiologia, Parazitologia, Epidemiologia, Vol 8, No 2, Mar-Apr 63; pp 99-112.

Abstract [English summary modified]: Quartan malaria seems especially difficult to eradicate due to spontaneous recurrence of ancient infection and cases where parasitemia is so slight as to be virtually undiagnosable, causing transmission via transfused blood. In 1949, 215 of 30,000 (0.4%) cases were quartan; 1960-1962, 71 of 1341. Graph, 2 tables; 5 case reports; 11 Rumanian, 3 Soviet, 15 Western references.

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L 19410-65 EWG(j)/FSS-2/EWT(1)/EWT(m)/EPF(c)/EEG(k)-2/EPF(n)-2/EWG(m)/EPR/T/  
EWP(t)/EED-2/ENP(b) Pz-6/Pr-4/Ps-4/Pu-4 IJP(c) RWH/JD/VW

ACCESSION NR: AP5009944

UR/0364/65/001/002/0218/0223

62  
B

AUTHOR: Mazimov, Yu. A.

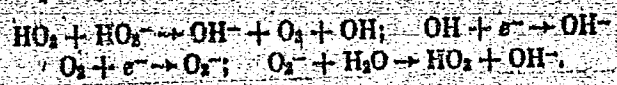
TITLE: Ionization of oxygen in alkaline solutions at the three-phase boundary.  
Ionization conditions and distribution of the process along the length of the film

SOURCE: Elektrokhimiya, v. 1, no. 2, 1965, 218-223

TOPIC TAGS: oxygen, hydrogen peroxide, gas ionization, fuel cell, electrochemistry

ABSTRACT: Efficient fuel cell design calls for a study of electrochemical reac-

due to interaction with perhydroxyl radical



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ACCESSION NR: AP5009944

At lower positive potentials hydrogen peroxide decomposes on the surface of electrodes which had been preanodized at +1.1 v, involving surface metal oxides. Due to the accelerated decomposition of hydrogen peroxide near +0.9 v an anomalous current density distribution is observed on the partially immersed electrode. The maximum current density occurs on those sections of the electrode which are furthest from the gas-liquid interface. Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Institute of

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Institute of  
Physical Chemistry)

SUBMITTED: 10Jun64

ENCL: 02

SUB CODE: GC

NO REF SOV: 018

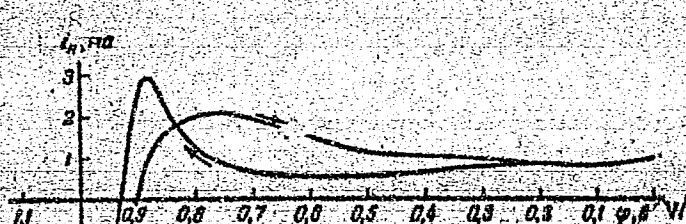
OTHER: 007

Card 2/4

L 49110-65

ACCESSION NR: AF5009944

ENCLOSURE: 01



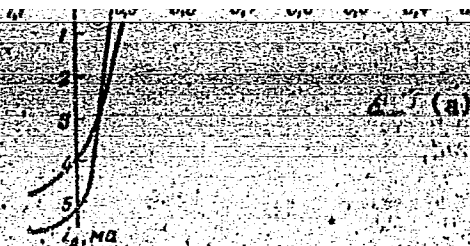


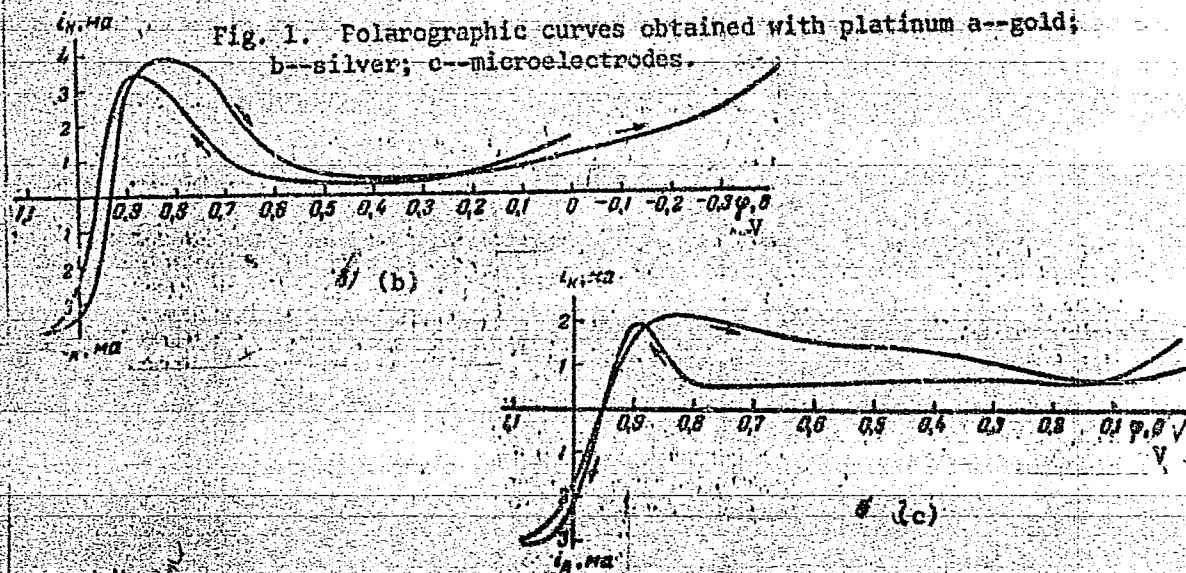
Fig. 1

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L 49410-65

ACCESSION NR: AP5009944

ENCLOSURE: 02



KOSMOLINSKIY, F., kand. med. nauk, polkovnik meditsinskoy sluzhby;  
MAZIN, A., polkovnik meditsinskoy sluzhby

Keep heart and nerves well in hand. Kryl. rod. 14 no.5:34-36  
My '63. (MIRA 16:7)

(Parachuting)

MAZIN, A.G.

Speed up the construction of mines. Sov.shakht. 10 no.5:6-7 My  
'61. (MIRA 14:9)

1. Zamestitel' nachal'nika Glavnogo upravleniya ugol'noy, torfyanoy  
i slantsevoy promyshlennosti Vysshego soveta narodnogo khozyaystva  
RSFSR.

(Coal mines and mining)

MAZIN, A.O.

Potentials for increasing the efficiency of capital investments  
in the coal industry. Shakht.stroi. 6 no.2:1-4 F '62. (MIRA 15:2)

1. Zamestitel' nachal'nika Glavnogo upravleniya ugol'noy, torfyanoy  
i slantsevoy promyshlennosti Vserossiyskogo Soveta Narodnogo  
Khozyaystva.

(Coal mines and mining—Finance)

AGADZHANYAN, N.A.; ZHAROV, S.G.; KALINICHENKO, I.R.; KARPOVA, L.I.;  
KAPLAN, Ye.Ya.; KUZNETSOV, A.G.; OSIPOVA, M.M.; MAZIN, A.N.;  
SERGIYENKO, A.V.

Effect of various rates of decompression on the human body.  
Voen. med. zhur. no.10:49-53 0 '65. (MIRA 18:11)

MAZIN, A.P., kapitan, voyenny letchik pervogo klassa

First-class personal training. Vest.Vozd.Fl. no.8:42-44 Ag '60.  
(MIRA 13:9)

(Flight training)

MAZIN, B.

Extracurricular conferences of students on educational topics.  
Prof.-tekh.obr. 15 no.1:27 Ja '58. (MIRA 11:1)

1. Pomoshchnik direktora po dul'turno-vospitatel'noy rabote  
tekhnicheskogo uchilishcha No.14 g. Moskvy.  
(Student activities)

KANTER, Z.I., inzh.; GOLEMBIOVSKIY, Yu.M., inzh.; MAZIN, B.A., inzh.

Three-phase bridge-type transistor frequency converter.  
Elektrotehnika 34 no.10:64-68 0 '63. (MIRA 16:11)

MAZIN, B.S.; PETUKHOV, I.N.; KUROCHKIN, P.G.

Use of periclase-spinel bricks in the regenerator checkerwork  
of open-hearth furnaces. Stal' 21 no.8:699-700 Ag '61.

(MIRA 14:9)

1. Beloretskiy metallurgicheskiy kombinat.  
(Open-hearth furnaces--Equipment and supplies)  
(Firebrick)

MASIN, I., inzhener.

Revise the construction of equipment for unloading grain from  
railroad cars. Muk.-elev.prom. 21 no.12:6-9 D '55. (MLRA 9:4)

1.Khar'kovskoye otdeleniye Promsternoproekta.  
(Grain--Transportation) (Loading and unloading)

MAZIN, I., inzhener.

~~Ways~~ Ways of lowering the cost of elevator construction. Muk.-elev.  
prom. 23 no.8:13-16 Ag '57. (MIRA 10:11)

1. Khar'kovskoye otdeleniye Promsernoprojekt.  
(Grain elevators) (Construction industry--Costs)

MAZIN, I., inzh.

Pamphlet on the installation of grain ducts ("Construction and installation of grain ducts in elevators and grain dryers" by E.M. Tul'chinskii. Reviewed by I. Mazin). Muk. elev. prom. 24 no.1:32-3 of cover Ja '58. (MIRA 11:2)  
(Grain elevators--Equipment and supplies)  
(Tul'chinskii, E.M.)

MAZIN, I., inzh.

Introducing automatic unequal-arm scales at grain elevators. Muk.-  
elev.prom. 26 no.7:14-15 JI '60. (MIRA 13:9)  
(Scales (Weighing instruments))

MAZIN, I., inzh.

Revise standards for planning grain elevators and grain receiving  
stations. Muk.-elev. prom. 27 no.4:28-29 Ap '61. (MIRA 14:7)  
(Grain elevators)

MAZIN, I. P.

met ③

Metallurgical Abst.  
Vol. 21 Apr. 1954  
Properties of Metals

Concerning the Fatigue of Metals. N. S. Akulov, I. P. Mazin; and Ya. I. Feldshtein (*Doklady Akad. Nauk S.S.S.R.*, 1951, 78, (2), 203-206).—[In Russian]. Some published empirical formula for interpreting fatigue data are discussed. Then, on the basis of a simple physical model of the formation of primary fatigue cracks, the relation  $N = N_0 e^{a(A - A_0)}$  is deduced for  $A > A_0$ , with  $N \rightarrow \infty$  for  $A \leq A_0$ . In this expression,  $A$  is the amplitude of stress for fracture after  $N$  cycles,  $a$  is the const. of proportionality in the equation  $dS = aSdA$  (where  $S$  is the general area of cleavage in unit vol. for one cycle) and  $A_0$  the critical value of  $A$  at which cleavage begins. Published experimental data for C and alloy steels agree well with this formula.—G. V. E. T.

**MAZIN, I.P.**

Calculation of the deposit of drops on round cylindrical surfaces.  
Trudy TSAO no.7:39-49 '52. (MIRA 8:5)  
(Hygrometry) (Drops)

*Evaluation B-3,072, 303*

*Translation M-1157, 11 Jul 56*

KHRGIAN, A.Kh.; MAZIN, I.P.

Computing the errors of aerial droplet samplers. Trudy TBAO no.12:  
3-12 '53. (MIRA 12:1)  
(Meteorological instruments)

MAZIN, I. P.

~~KHARGIAN, A.Kh.; MAZIN, I.P.~~

Analyzing methods for describing spectra of cloud particle dispersion.  
Trudy TSAO no. 17:36-46 '56. (MIRA 10:3)  
(Clouds-Spectra)

MAZIN, I.P. Cand Phys-Math Sci (diss) "Physical principles in the  
icing-over of propeller-driven and jet-propelled airplanes."  
(Mos., pub. by USSR Acad Sci), 1957. 10 pp 22 cm. (Main Geophys  
Observ <sup>try</sup> in A.I. Voyeykov) 120 copies  
(KL, 11-57, 96)

PHASE I BOOK EXPLOITATION 512

Mazin, I. P.

Fizicheskiye osnovy obledeneniya samoletov (Physical Principles of Aircraft Icing) Moscow, Gidrometeoizdat, 1957. 119 p. 1,000 copies printed.

Sponsoring Agencies: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovetskim Ministrom SSSR, and Tsentral'naya aerologicheskaya observatoriya.

Ed.: Borovikov, A.M., Subbotina, G.B.; Tech. Ed.: Zarkh, I.M.

PURPOSE: This book is intended for meteorologists, synoptic forecasters, and aviation workers interested in aircraft icing phenomena in flight.

COVERAGE: The author discusses the theoretical and experimental problems of aircraft icing in flight including the influence of physical

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Physical Principles of Aircraft Icing

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parameters of clouds and the influence of the operating conditions of aircraft on icing intensity. He considers theoretical problems of the flow of air containing suspended drops of water over various bodies, and the role of heat transfer processes which diminish the intensity of aircraft icing. The author states that the problem of icing changes constantly and the prevention of icing takes new forms. Newly designed aircraft may be particularly susceptible to icing in some atmospheric conditions. The probability of icing is different for various types of aircraft. New problems arise, for example, the icing of helicopters and the internal icing of jet engines. On the problem of icing in supersonic flights, the author states that theoretical considerations provide answers to many important questions, e.g., intensity of icing, its dependence on cloud structure, etc. The theory of supersonic aircraft icing presented in this book is based on the supposition that a substantial heat transfer to the interior surface of the airfoil takes place. This supposition is not based on concrete data and therefore cannot be considered absolutely exact. It is possible that in some

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# Physical Principles of Aircraft Icing

unfavorable conditions an unexpected deposition of ice may occur. In spite of the apparent accuracy of the supposition of icing at supersonic speeds, the problem should be studied in special experimental flights. Basic results cited in this work were obtained in the cloud research laboratories of the TsAO (Central Aerological Observatory) in 1950-1956. V.F. Bonchkovskiy and N.V. Lebedev are mentioned as working on the icing problems of supersonic aircraft. Graphs and the corresponding 5 tables of values in the appendix are taken from Bergman's report published in NACA Rep. 1107, 1952. There are 83 references, 34 of them Soviet, 39 English, 4 German, and 6 translations into Russian.

## TABLE OF CONTENTS:

4

### Preface

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MAZIN, I. P.

"On the Icing of High-Speed Aircraft," by I. P. Mazin, Meteor-  
ologiya i Gidrologiya, No 4, Apr 57, pp 3-8

This article presents theoretical data, based on the literature, to show that, if the theory of the absence of heat loss inside the wing of an aircraft is correct, no icing can occur at supersonic velocities, even in rare cases of flight in strongly supercooled clouds with a below-freezing temperature at the surface of the aircraft. It states that experiment must show how accurate this conclusion is and how accurate are the assumptions on which it is based. (U)

SUM.1391

*MAZIN, I. P.*

49-4-17/23

AUTHOR: Mazin, I. P.

TITLE: Some problems of icing of propellor driven aircraft.  
(Nekotoryye voprosy obledeneniya vintomotornykh samoletov).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,  
1957, No.4, pp. 534-539 (USSR)

ABSTRACT: In studying the icing of various parts of an aircraft, the microstructure of clouds and the problem of purifying air and various other problems, it is necessary to calculate the probability of collision of aerosol particles with bodies of various shape (e.g. circular cylinders, wings and propellers, etc.) during their movement relative to the air. For calculating the degree of icing, it is necessary to know the coefficient of "encroachment"  $E$  of the wing profiles for given streamlining conditions. The coefficient of "encroachment"  $A$  is defined as the ratio of the cross section of a flow tube (in the non-disturbed region), formed by the extreme trajectories of the aerosol particles which still collide with the body, to the "mid-ship" cross section of the body. Determination of  $A$  is reduced to finding the trajectories of the aerosol particles near the body, i.e. to integrating the motion equations of these particles, written in the

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Some problems of icing of propellor driven aircraft. 49-4-17/23

non-dimensional form, Eq.(1), p.534; this equation represents an inversion of a system of non-linear differential equations of the second order for which only numerical integration is possible. The trajectory of the particles and, consequently, the value of  $A$  depends on two parameters  $p$  (inertia parameter of the drop) and  $Re$  (Reynolds number for a drop of the radius  $r$  and the relative speed  $u_{\infty}$ ). For a number of cases  $p$  and  $Re$  values were calculated by Bergrun, R.N. (Ref.6). Bergrun and L. M. Levin paid particular attention to determining the critical parameter of  $p$  at which the drops do not collide with the body, i.e. for  $p \leq p_{cr}$  the coefficient  $E = 0$ . Bergrun published a graph of the dependence of  $p_{cr}$  for a symmetrical Zhukovskiy profile on the relative thickness of  $C$  and the coefficient of lift force  $C_y$ . Levin gave an analytical relation for  $p_{cr}$  for Zhukovskiy profiles in which the dependence not only on  $C$  and  $C_y$  but also on the bending of the profile, expressed by the relative thickness  $f$ , are taken into consideration with an accuracy up to the third order. In practice the

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Some problems of icing of propellor driven aircraft. 49-4-17/23

thickness of the icing on the critical point of the profile, determined by the local value of the "encroachment" coefficient  $E_0$  is of greater importance but very little data are available on this point. Data obtained by L. M. Levin as well as the results of calculations effected by the Central Aerological Observatory (Tsentral'naya Aerologicheskaya Observatoriya) and also  $E_0$  values for a 15% symmetrical Zhukovskiy profile with a zero incidence angle (derived from the work of Bergrun) are entered in the graph, Fig.2. It can be seen that for  $p > 0.05$  the influence of  $Re_0$  is relatively slight. Disregarding evaporation and heat exchange on the iced surface (which is permissible for speeds below 300 km/hr and an air temperature below  $-5^{\circ}\text{C}$ ) the intensity of icing at the nose of the profile can be calculated by means of Eq.(5), p.537. Some experimentally observed results confirm results calculated by means of Eq.(5). This is interpreted to mean that the conception of "integral coefficient of encroachment" and the here given methods of calculation express satisfactorily in the first approximation the phenomenon of icing of aircraft. There are 4 figures, 1 table and 8 references, 7 of which

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are Slavic.

Some problems of icing of propellor driven aircraft. 49-4-17/23

SUBMITTED: November 1, 1956.

ASSOCIATION: Central Aerological Observatory. (Tsentral'naya  
Aerologicheskaya Observatoriya).

AVAILABLE: Library of Congress.

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SOV/169-59-7-7143

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 7, p 97 (USSR)

AUTHORS: Minervin, V.Ye., Mazin, I.P., Burkovskaya, S.N.

TITLE: Some New Data on the Liquid-Water Content in Clouds <sup>12</sup>

PERIODICAL: Tr. Tsentr. aerol. observ., 1958, Nr 19, pp 3 - 32

ABSTRACT: The data from observations of the liquid-water content in clouds are evaluated statistically; the observations were carried out in 12 points of aircraft sounding of the hydrometeorological service in 1956 and 1957, which were different in their geographic position. The greatest number of observations were performed in stratified cumuli (1,625 observations of the total number 3,665). The methods applied to the evaluation of observations and the quality of the materials collected are described in detail. Basing on the common considerations, the author obtains a semi-empirical formula connecting the liquid-water content of the cloud with the temperature gradient and the altitude above the lower boundary of the cloud. Empirical data on the dependence of the mean values of the liquid-water

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SOV/169-59-7-7143

Some New Data on the Liquid-Water Content in Clouds

content on the temperature and, moreover, data on the frequency of water content in clouds of different form in different temperature intervals are presented. The data on the vertical gradient of water content are interpreted empirically, and the connection of the water content with the altitude above the lower boundary is explained. A clear-cut connection of the average characteristics of the water content with the geographic position of the points has not been detected.

I.P. Mazin



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3.5000

SOV/163-59-5-4920

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 5, p 86 (USSR)

AUTHOR: Mazin, I.P.

TITLE: On the Radio-Observation of Wind From A Moving Ship

PERIODICAL: Tr. Tsentr. aerol. observ., 1958, Nr 24, pp 72 - 74

ABSTRACT: The observations of a pilot balloon from a moving ship by means of a locator stiffly connected with the ship's deck allow to obtain the coordinates of the pilot-balloon only relatively to the ship's deck varying continuously its orientation in space. The author developed in the article the correlations for the determination of the real location angle, the azimuth, the height of object, and of the horizontal distance of the pilot-balloon considering the motion and the rolling of the ship.

I.P. Mazin

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IVANOVSKIY, A.I. & MAZIN, I.P.

Turbulent coagulation and its role in the growth of cloud droplets.  
Trudy TSAO no.35:21-35 '60.  
(Cloud physics) (MIRA 13:11)

MAZIN, I.F.; SKOSYREVA, V.D.

Form of fall streaks, their representation on radar nephograms  
and relation with the microstructure of falling particles.

Trudy TSAO no.35:66-78 '60.

(MIRA 13:11)

(Radar meteorology) (Cloud physics)

MAZIN, I.P.

PHASE I BOOK EXPLOITATION SOV/5852

Borovikov, Aleksandr Moiseyevich, Ivan Ivanovich Gayvoronskiy, Yelizaveta Germanovna Zak, Vadim Vladimirovich Kostarev, Il'ya Pavlovich Mazin, Vladislav Yevgen' yevich Minervin, Aleksandr Khristoforovich Khrgian, and Solomon Moiseyevich Shmeter

Fizika oblakov (Cloud Physics) Leningrad, Gidrometeoizdat, 1961. 458 p.  
5000 copies printed.

Ed. (Title page): A. Kh. Khrgian; Ed. : V. S. Protopopov; Tech. Ed. :  
M. I. Braynina and O. G. Vladimirov.

PURPOSE: This book is intended for meteorologists and for specialists in forecasting service and aviation.

COVERAGE: The book describes modern methods of studying the development, structure and origin of clouds. Special attention has been given to the forma-

Card 1A0

Cloud Physics

SOV/5852

tion of microscopic elements in clouds. The macroscopic properties of clouds are also studied in detail. Their position in space, motion, as well as their connection with thermodynamic structure of the atmosphere, general circulation, cyclonic activity, etc. are investigated. Flying in clouds is briefly discussed. One chapter deals with cloud modification and seeding. The book is based on Soviet and non-Soviet sources. Ch. I was written by Ye. G. Zak and I. P. Mazin; Ch. II, by A. M. Borovikov, V. Ye. Minervin, A. Kh. Khrgian and S. M. Shmeter; Ch. III, V, and VI, by A. Kh. Khrgian; Ch. IV, by A. Kh. Khrgian and S. M. Shmeter; Ch. VII, by Ye. G. Zak; Ch. VIII, by A. M. Borovikov; Ch. IX, by I. P. Mazin; Ch. X, by I. I. Gayvoronskiy; Ch. XI, by V. V. Kostarev, V. Ye. Minervin and A. Kh. Khrgian. The authors thank L. T. Matveyev and A. M. Baranov. There are 632 references: 274 English, 254 Soviet, 71 German, 30 French, 2 Hungarian and 1 Polish.

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s/789/61/000/036/001/013  
EO32/E314

3.5100  
3.5800

AUTHORS: Borovikov, A.M., Mazin, I.P. and Nevzorov, A.N.  
TITLE: Some results of measurements of the size-distribution of large particles in clouds  
SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy. no. 36. Moscow, 1961. Voprosy fiziki radiolokatsii oblakov, 3 - 13

TEXT: This paper reports an experimental study of the concentration and dimensions of large particles (radius  $> 75 \mu$ ) in various types of cloud. The experiments were carried out with a specially designed apparatus mounted on board an aircraft. The device was developed at TsAO by A.N. Nevzorov. Drops entering the device pass through a standard light beam, which is continuously monitored by a photomultiplier. As soon as the particle enters the beam the photomultiplier current drops and is transformed into a pulse which can be recorded either on a moving chart or with the aid of electronic circuits. The geometry of the device is such that the air stream flowing through it is affected as little as possible by the instrument itself. The light beam passes through about 100 litres

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S/789/61/000/036/001/013  
E032/E314

Some results of .....

of air per second at a flight velocity of 50 - 60 m/s. Thus, the cloud-volume scan per minute is of the order of a few cubic metres. The method, therefore, has clear advantages over the foil method described by Brown (Journ. of Met., v. 15, 1958). The first experiments were carried out in October/November, 1959, over an experimental meteorological polygon near Dnepropetrovsk. The device was modernized in April, 1960, to include electronic counting devices so that particles in four adjustable size ranges could be recorded. The modernized device was used in April/May, 1960, near Vil'nyus, to determine the drop-size distribution. Altogether 446 determinations were made. Detailed results are reproduced in the form of numerical tables. It was found, in most cases, that the relation between the number of particles per unit radius range was an exponential function of the radius. It was discovered that the presence of large particles in clouds was the rule rather than the exception. In a number of cases, it was possible to determine the height at which large particles were no longer present and to compare this with the position of the lower boundaries of clouds. Such comparisons showed that large particles were found up to 100 - 200 m below the lower boundary of Ac and Cu clouds and 1 - 2 km

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S/789/61/000/036/001/013  
E032/E314

Some results of ....

or more below As and Ns clouds. In fact, they appeared to be  
the precipitation particles reaching the Earth. In isolated cases,  
large particles were recorded even above clouds. !X  
There are 1 figure and 7 tables.

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S/058/62/000/006/118/136  
A062/A101

AUTHORS: Borovikov, A. M., Kostarev, V. V., Mazin, I. P., Chernikov, A. A.

TITLE: Relation between the magnitude of a radar signal reflected from a cloud and the cloud parameters

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 32, abstract 6Zh215  
("Tr. Tsentr. aerol. observ.", 1961, no. 36, 14 - 30)

TEXT: The dependence of the intensity of a radar signal reflected from a cloud on the water abundance of the cloud and other parameters is theoretically and experimentally examined. It is shown that the existing opinions on a definite relation between the intensity of reflected signals and the cloud water abundance are not founded. On the basis of the reported results of experiments it is maintained that the fundamental reflection of standard signals is conditioned by particles of a size  $> 200 \mu$ . ✓

Yu. Mel'nikov

[Abstracter's note: Complete translation]

Card 1/1

42526

S/789/61/000/036/005/013  
E032/E414

3.5110

AUTHORS:

Mazin, I.P., Skosyreva, V.D.

TITLE:

On the size distribution function for cloud droplets

SOURCE:

Tsentral'naya aerologicheskaya observatoriya.  
Trudy. no.36. Moscow, 1961. Voprosy fiziki  
radiolokatsii oblakov, 43-52

TEXT: L.M.Levin (Izvestiya AN SSSR, seriya geofiz., no.10, 1958) has reported that the empirical data on droplet size distribution can be described by the so-called gamma-distribution  $n(r) = Ar^{\alpha} \exp(-r/\beta)$  where  $\alpha$  is a constant and  $A$  involves the incomplete gamma-function. However, he found that high values of  $\alpha$  were necessary to account for 71% of all the data, while the results obtained at TsAO indicate that  $\alpha$  should be much smaller (2 instead of 8). The present work was undertaken in order to elucidate the reasons for this discrepancy. The new analysis was based on airplane determinations carried out by TsAO in 1959. The reasons for the above discrepancy were found to be as follows. Levin's results were obtained with droplet traps located on the Earth's surface (Trudy Geofiz. in-ta AN SSSR, no.7A, 1954) and the

Card 1/2

On the size distribution ...

S/789/61/000/036/005/013  
E032/E414

samples were collected from "compact" volumes of the order of  $1 \text{ cm}^3$ . These droplets probably went through the same development process in the same part of the cloud. An examination of the gamma-distribution shows that such droplets would give rise to a high value for  $\alpha$  because their radii are not very different and this was in fact observed experimentally. The TsAO results, on the other hand, were obtained with samples collected from volumes of the order of 1 to  $10 \text{ cm}^3$  with very small transverse cross-sections and length of several tens of metres. In the analysis of the data the final distribution function represented an average for different regions of a given cloud and also for different clouds. The average value of  $\alpha$  was then found to be 2. Unless this averaging procedure is adopted much higher values of  $\alpha$  are found to result. There are 1 figure and 4 tables.

Card 2/2

BOROVNIKOV, A.M.; KOSTAREV, V.V.; MAZIN, I.P.

Use of radar for studying the structure of clouds. Dokl. AN SSSR  
140 no.3:575-578 S '61. (MIRA 14:9)

1. Tsentral'naya aerologicheskaya observatoriya. Predstavleno  
akademikom Ye.K.Fedorovym. (Radar Meteorology)

S/050/62/000/005/001/001  
D234/D308

AUTHOR: Mazin, I.P.

TITLE: Second scientific conference of young specialists  
of the central aerological observatory

PERIODICAL: Meteorologiya i gidrologiya, no. 5, 1962, 61

TEXT: On February 12 and 13, the 2nd conference of young specialists took place at the Central Aerological Observatory, where 13 lectures were held. In the communication of A.A. Chernyakov, the results of an investigation of physical nature and structure of dielectric inhomogeneities in the atmosphere causing radioechoes of the clear sky were given. The form of these inhomogeneities (closed volumes), their dimensions (hundreds of meters) and life period (over 5-10 minutes) were established. High reflectivity, as well as high directivity of reverse re-radiation led to the conclusion that there are considerable gradients of dielectric permeability at the boundaries of the inhomogeneities. In a series of investigations devoted to wind

Card 1/3

S/050/62/000/005/001/001  
D234/D308

Second scientific conference ...

and turbulence fields in the atmosphere (V.P. Belyayev, N.K. Vinnichenko, L.A. Pakhomov and V.D. Patsayeva) those of L.A. Pakhomov occupy an eminent place; he created an aircraft equipment for measuring the micro-structure of wind fields in clouds and outside them and obtained first data on the character of vertical and horizontal pulsations of the wind in clouds of stratified forms, as well as in those of convective development. M. Ya. Aksekov devoted his paper to electron microscope research of dispersion of ice-forming aerosols. A.I. Nevzov reported on a device for measuring large particles in clouds and precipitations designed by him. In the lectures of O.K. Kostko, G.M. Martynkevich, A.V. Fedynskiy and A.F. Chishov the difficulties of mass spectrometric measurements in the stratosphere were comprehensively treated and the methods of corresponding measurements were given a basis. Laboratory experiments showed that an omegatron with exhaust system and a transit time mass spectrometer can secure corresponding measurements at heights of 40 to 60 km and more if they are lifted. The possibilities of automatic processing of the data of rocket sounding of the atmosphere were discussed in the lecture of V.I. Kozlov.

Card 2/3

Second scientific conference ...

8/050/62/000/005/001/001  
D234/D308

V.G. Kidiarova devoted her communication to the variability of pressure and density fields in the free atmosphere.

[ Abstractor's note: Essentially complete translation]

Card 3/3

MAZIN, I.P.

Method for evaluating the efficiency of thermal deicers with allowance  
for liquid water content and temperature of the clouds. Trudy TSAO  
no.39:56-76 '62. (MIRA 15:6)

(Airplanes---Ice prevention) (Clouds)

ACCESSION NR: AT4011394

S/2789/63/000/047/0024/0032

AUTHOR: Mazin, I. P.

TITLE: "Age" of particles in stratiform clouds

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy\*, no. 47, 1963.  
Fizika oblakov, 24-32

TOPIC TAGS: meteorology, cloud particle, cloud, stratiform cloud, condensation nucleus, atmospheric turbulence, cloud boundary, droplet spectrum

ABSTRACT: The age of individual droplets in a cloud can differ appreciably from the age of the cloud as a whole, probably as a result of turbulence. Mason's work on this problem is reviewed (J. of Met., 17, No. 4, 1960, 459-468). The author agrees with Mason that the age of drops is determined by the turbulent mixing mechanism (in stratiform clouds) but points out inaccuracies in formulation of the boundary conditions. It is impossible to accept Mason's conclusions because of his arbitrary assumption that all nuclei replacing drops perishing at the cloud boundaries are again propagated from the center of the cloud. The problem is reconsidered, assuming that drops which pass through the cloud boundary evaporate so rapidly that only condensation nuclei can penetrate into the

Card 1/2

ACCESSION NR: AT4011394

cloud from outside; the age of drops is determined by the time of their single lifetime in the cloud layer. A suitable equation is presented and solved for the concentration of particles penetrating into a cloud in a given period of time at a particular cloud level at any time. Expressions are derived for the density of distribution and distribution of cloud particles by ages; that is, the duration of their single lifetime in the cloud. The conditions of growth of particles entering a cloud through the lower boundary differ from those for particles entering through the upper boundary; their dimensions will differ even if they coincide in age. Appropriate formulas are presented for determination of the quantity of "upper" and "lower" particles. A graph can be constructed for finding the density of distribution of drops by ages at different cloud heights. Orig. art. has: 16 formulas and 2 figures.

ASSOCIATION: TSENTRAL'NAYA AEROLOGICHESKAYA OBSERVATORIYA (Central Aerological Observatory)

SUBMITTED: 00

DATE ACQ: 24Feb64

ENCL: 00

SUB CODE: AS

NO REF SOV: 003

OTHER: 006

Cord 2/2

GEYVANDOV, E. A.; MAZIN, I. P.

Simple method for calculating the melting of hailstones  
during the fall. Trudy TSAO no. 51: 57-68 '63.

(MIRA 17:5)

L 53935-65 EWT(1)/ECG CH

ACCESSION NR: AT5013761

UR/2789/65/000/064/0036/0043

AUTHOR: Mazin, I. P. (Candidate of physico-mathematical sciences)

TITLE: Discussion of the existing theory concerning the size distribution of large cloud particles

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 64, 1965. Voprosy fiziki oblakov i osadkov (Problems in cloud and precipitation physics), 36-43

TOPIC TAGS: cloud particle size, droplet size distribution, precipitation nucleus

ABSTRACT: This is a critical survey of the theoretical papers by A. M. Golovin (Izv. AN SSSR, ser. geofiz., no. 5, 1963), P. A. Welander (Tellus, 11, 1959), and M. V. Buykov, M. I. Dekhtyar and S. S. Dukhin (Izv. AN SSSR, ser. geof., no. 4, 1963) based on the solution of kinetic equations describing the joint behavior of droplets under various assumptions. It turns out that, in spite of essentially different initial assumptions, all three theories are able to explain the inverse power dependence of particle concentration on their size. This was experimentally observed during the study of the distribution of

Card 1/2

I. 53935-65

ACCESSION NR: AT5013761

large precipitation nuclei and large droplets (with  $r > 75\mu$ ) in clouds. This seems to indicate that large cloud particles are produced basically by coagulation processes.

Orig. art. has: 45 formulas.

ASSOCIATION: Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NO REF SOV: 004

OTHER: 001

Card 2/2

L 53937-65 ENT(1)/FC2 ON  
ACCESSION NR: AT5013762

UR/2789/65/000/064/0057/0070

AUTHOR: Mazin, I.P.

TITLE: The theory of the formation of a particle size spectrum in clouds and precipi-  
tations

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 64, 1965.  
Voprosy fiziki oblakov i osadkov (Problems in cloud and precipitation physics), 57-70

TOPIC TAGS: rain particle formation, cloud particle size distribution, stochastic  
condensation theory, random humidity field condensation, precipitation nucleus

ABSTRACT: The experimental data (A.M. Borovnikov, I.P. Mazin, A.N. Nevzorov,  
Izv. AN SSSR, ser. fiziki atm. i okeana, no. 2, 1965) indicate that the distribution  
density of cloud droplets and snow crystals according to size is described by a curve

density of cloud droplets and snow crystals according to size is described by a curve decreasing to the right of the maximum in a close-to-exponential manner. The theory of stochastic condensation developed in this paper (the theory of condensation growth of cloud particles within a random field of humidity) together with the differences in age of the cloud particles explain the similarity in shape of the cloud particle size distributions, the true value of the width of these spectra, and the rather rapid rate of formation of the

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L 53937-65

ACCESSION NR: AT5013762

large particles needed for the production of precipitation. The article supplies extensive theoretical derivations and contains detailed discussions of the theoretical consequences. "The author thanks L. M. Levin, Yu. S. Sedunov, V. I. Smirnov, and A. Kh. Khrigian for discussion of the results and valuable advice." Orig. art. has: 63 formulas and 1 table.

ASSOCIATION: ~~ISSENTAL'NAYA ASTRONOMICHESKAYA OBSERVATORIYA~~ ISSENTAL' ASTRONOMICAL

Observatory)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NO REF SOV: 012

OTHER: 006

*Inc*  
*Ch-5* 2/2

L 48590-65 EWT(1)/FCC GW

ACCESSION NR: AP5010226

UR/0362/65/001/003/0291/0301

AUTHORS: Borovikov, A. M.; Mazin, I. P.; Nevzorov, A. N.

TITLE: Some distributional patterns of large particles in clouds of various forms

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 3, 1965, 291-301

TOPIC TAGS: cloud, rainfall, ice crystal / LI 2 airplane, IL 14 airplane

ABSTRACT: The authors have studied the size range and concentration of large particles in clouds of different types. The data were obtained from aerial flights of "flying laboratories" in LI-2 or IL-14 planes. The concentration and

Card 1/2

L 48590-65

ACCESSION NR: AP5010226

greater in altocumulus ( $101\mu$ ) and altostratus ( $121\mu$ ) clouds, and greatest in nimbostratus clouds, in which some particles exceed  $300\mu$ . The average size for this type cloud is  $245\mu$ , but some particles may be only  $89\mu$ . This varia-

ASSOCIATION: Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)

SUBMITTED: 21Feb64

ENCL: 00

SUB CODE: ES

NO REF SOV: 004

OTHER: 005

Card 2/2

MAZIN, I.T.; DAVYDOV, Ya.A.

Quick-catch draw-in collar chuck for lathes. *Mashinostroitel'*  
no.2:19 F '65. (MIRA 18:3)

MAZIN, L.V.

Report to be presented at the 1st Intl Congress of the Intl Federation of Automatic Control, 25 Jun-5 Jul 1960, Moscow, USSR.

- MAZIN, L. V. - "Computing thermo-mechanic gas analyzers"  
 MAZIN, L. V. - "Method of determining the optimum dynamic system  
 according to the criterion of the functional extra, which is a given  
 function of several other functions"  
 MAZIN, L. V., and GAVRILIN, P. P. - "Some problems of the theory of  
 nonlinear systems of automatic regulation with discontinuous character-  
 istics"  
 MAZIN, L. V. - "Concerning the organization of the MAZIN function  
 for nonlinear systems"  
 MAZIN, L. V. - "Graphic methods of synthesis of nonlinear systems  
 of automatic regulation"  
 MAZIN, L. V. - "Problems of the application of high liquid pressure  
 for automatic systems"  
 MAZIN, L. V., and MAZIN, A. K. - "The theory of stability of regulation systems"  
 MAZIN, L. V. - "Multicordinate nonlinear interpolator for program  
 control of machines"  
 MAZIN, L. V., and MAZIN, A. K. - "Automatic alloy systems"  
 MAZIN, L. V., and MAZIN, A. K. - "Automatic electric drive of the propeller  
 installation of the steam icebreaker 'Lentis'"  
 MAZIN, L. V., and MAZIN, A. K. - "Application of the equivalent  
 logarithmic function in the calculation of follower systems by the  
 logarithmic function method"  
 MAZIN, L. V., and MAZIN, A. K. - "Contactless  
 telemechanical systems with temporary separation of channels"  
 MAZIN, L. V., and MAZIN, A. K. - "The maximum principle in the theory of optimum  
 control processes"  
 MAZIN, L. V. - "Automated electric drives of a metallurgical plant"  
 MAZIN, L. V. - "Automatic regulation of froth-layer processes in  
 numerous metallurgy"

MAZIN, M. inzhener-polkovnik.

On the problem of dry bomb-spot photography. Vest.Vozd.Fl.34  
no.12:80-82 D '51. (MLRA 8:3)  
(Bombing, Aerial—Study and teaching)

MAZIN, N.I.

Purifying the overhead of a gasoline stabilization product with a  
monoethanolamine solution. Nefteper. i neftekhim. no.9:33-34 '64.  
(MIRA 17:10)

1. Angarskiy neftepererabatyvayushchiy zavod.

MAZIN, M.B., ingh.; VYZHIGIN, G.V.; VOLKOV, A.A., ingh.

Designing joints of prefabricated reinforced concrete and steel for  
multistoried buildings according to tolerances. Prom. stated. 42  
no. 7:9-13 '65. (MIRA 1965)

MAZIN, M.R., inzh.

Precision in the assembly of reinforced concrete columns of  
industrial buildings. Prom.stroi. 43 no.12:6-9 '65.  
(MIRA 18:12)

MAZIN, M.R.

Standardizing molds for making precast concrete constructions.  
Standartizatsiia 29 no. 11:39-41 N '65 (MIRA 19:1)

L 16925-65 EWT(m)/EPF(c)/T Pr-4 WLS

ACCESSION NR: AP5002736

S/0065/64/000/007/0034/0035

AUTHOR: Tagirov, M. Z.; Mazin, N. P.

TITLE: Cleaning liquified gases of hydrogen sulfide with a solution of monoethanolamine

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 7, 1964, 34-35

TOPIC TAGS: sulfur, liquid gas, hydrocarbon, desulfurization, sulfide, petroleum refining

ABSTRACT: The hydrogen sulfide content of liquefied hydrocarbon gases, produced in the refining of sulfur crudes reaches 3.5-6.0% by volume; the most widespread method of removing sulfur from liquefied hydrocarbon gases is treatment with a solution of sodium hydroxide or tripotassium phosphate. Noting the shortcomings of these methods, the authors describe a setup for purification with a solution of monoethanolamine, now operating at the Angarsk Petroleum Refinery. The technological scheme provides for mixing of regenerated monoethanolamine solution with the initial gas, separation

and recycling of the monoethanolamine. The degree of recovery of the solid-

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L 16925-65

ACCESSION NR: AP5002736

tion is 85-90%, degree of purification of the gas 90-98%; final purification is performed with a circulating solution of sodium hydroxide, resulting in a reduction of the hydrogen sulfide content to 2-8 mg/m<sup>3</sup> of gas.

Orig. art. has 1 figure.      ... .. consent to 2-5 mg/m<sup>3</sup> or gas.

ASSOCIATION: ANGARSKIY NPZ (Angarsk NPZ)

SUBMITTED: 00

ENCL: 00

SUB CODE: GC, FP

NO REF SOV: 000

OTHER: 000

JPRS

Card 2/2

DEMIDOVICH, V.N.; LEVCHENYA, N.S.; MAZIN, P.N.

Use of an electroluminescent matrix screen. Geofiz. prib. no.  
12:107-112 '62. (MIRA 17:5)

1. VMOLA.

TSIPENYUK, M.Kh. [TSyperiak, M.Kh.], MAZIN, V.A.; SKRYLEV, V.B. [Skrylev  
V.B.]

Use of the naphthalene fraction in the production of phthalic  
anhydride. Khim. prom. no.4:12-13 O-D '64. (MIRA 8:3)

L 05069-67 EWT(m) JR/GD

ACC NR: AT6027933

SOURCE CODE: UR/0000/66/000/000/0170/0174

AUTHOR: Abagyan, A. A.; Belov, S. P.; Kazanskiy, Yu. A.; Mazin, V. I.

ORG: None

TITLE: Measurement and calculation of the coefficients of secondary gamma-radiation

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 170-174

TOPIC TAGS: gamma radiation, neutron, radiation shielding, capture cross section

ABSTRACT: The authors consider the coefficient of secondary emission  $\beta$  which expresses the ratio of the total number, dose or energy of capture  $\gamma$ -quanta to the total number of neutrons emitted from a given shielding material. The general expression for this coefficient is

$$\beta = \frac{\sum_i \int \Phi(r, \Omega, E) \Sigma_{n,\gamma}(E) \eta_i(E) \psi(r, r_s, E_i) d\Omega dE dV ds}{\int \Phi(r_s, \Omega, E) d\Omega dE ds}$$

where  $\Phi(r, \Omega, E)$  is the neutron flux at the point  $r$  in the unit energy interval at energy  $E$  and in the unit solid angle about the direction  $\Omega$ ;  $\Sigma_{n,\gamma}(E)$  is the radiation capture cross section for neutrons of energy  $E$ ;  $\eta_i(E)$  is the yield of  $\gamma$ -quanta of

Card 1/2

L 05069-67

ACC NR: AT6027933

2

energy  $E_i$  per capture of a single neutron with energy  $E$ ;  $\psi(r, r_s, E_i)$  is the function which gives the attenuation of the stream of  $\gamma$ -quanta with energy  $E_i$  from the point of  $\gamma$ -quantum production  $r$  to the points  $r_s$  on the surface. A formula is derived for the asymptotic value of  $\beta$  determined by the physical properties of the shielding material alone. A comparison of theoretical and experimental asymptotic values of  $\beta$  shows a systematic divergence by a factor of approximately 2.5, the theoretical data being overestimated. The reason for the divergence is assumed to be inaccurate determination of neutron intensities at the boundary. In spite of the discrepancy between experimental and theoretical data, the nearly constant divergence obtained for various elements with large, small and moderate capture cross sections (tungsten, lead, iron and nickel) indicates that the proposed method may be used for calculating the asymptotic values of  $\beta$  with an accuracy of 30% if a correction factor of 2.6 is used. The authors thank S. G. Tsypin and V. Ya. Pupko for interest in the work and useful remarks. Orig. art. has: 3 figures, 6 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 003

Card 2/2 *pla*

MAZIN, V.S., inzh. (g. Zaporozh'ye)

Investigating graphic train sheets by analyzing the configuration  
of lines made by train runs. Vest. TSNII MPS no. 5:48-51 J1 '58.

(MIRA 11:8)

(Railroads--Traffic)

PERCHIK, V.P.; MAZIN, V.S.

Efficiency of the transfer of the management of industrial  
approach tracks to the main railroads. Zhel. dor. transp.  
47 no.3:24-25 Mr '65.

(MIRA 18:1)

1. Nachal'nik stantsii Mokraya Pridneprovskoy dorogi (for Perchik).
2. Starshiy inspektor pod"yezdnykh putey Zaporozhskogo otdeleniya Pridneprovskoy dorogi (for Mazin).

TSITSIN, N.V., akademik; CHERKASSKIY, Ye.S.; PROTSENKO, Ye.P.; MAZIN, V.V.;  
LYADOVA, G.L.; KILIMNIK, Ye.Ye.

Effect of the insecticidal and fungicidal repellent dust  
(IFRD-1) on cabbage clubroot. Dokl. AN SSSR 143 no.4:972-  
975 Ap '62. (MIRA 15:3)

1. Glavnyy botanicheskiy sad AN SSSR i Opytno-pokazatel'nyy  
sovkhoz im. Mossoveta Lyuberetskogo rayona Moskovskoy oblasti.  
(Clubroot) (Fungicides)

MAZIN, V.V.

Effect of boron and hydrogen peroxide on the infection of  
cabbage with clubroot. Biul. Glav. bot. sada no.56:76-81  
'64. (MIRA 18:5

1. Glavnyy botanicheskiy sad AN SSSR.

MAZIN, V.V.; PEREL'MAN, V.M., kand. med. nauk

Excretory urography with compression in the diagnosis of diseases of the solitary kidney. Sov. med. 28 no.10:131-134 O '65. (MIRA 18:11)

1. Urologicheskaya klinika (zav.- prof. I.P. Pogorelko [deceased]) i 1-ya kafedra rentgenologii i radiologii (zav.- prof. S.A. Reynberg) Tsentral'nogo instituta usovershenstvovaniya vrachey na baze klinicheskoy ordena Lenina bol'nitsy imeni Botkina, Moskva.

MAZIN, V.V.

Resection and cavernostomy of a solitary tuberculous kidney.  
Urol. i nefr. no.2:27-30 '65. (MIRA 19:1)

1. Urologicheskaya klinika (zav. - prof.I.P.Pogorelko [deceased])  
TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

**MAZIN, Ya.I.**

**Protective device for the LD-7 type pressure casting machine.**  
**Lit.proizv. no.5:29-30 My '55. (MLRA 8:6)**  
**(Die casting)**

AUTHOR: Mazin, Ya.L.

32-12-63/71

TITLE: Short Reports (7) (Korotkiye soobshcheniya).

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 12, pp. 1520-1520 (USSR)

ABSTRACT: The author reports in this paper that in a Soviet industrial plant, which is not mentioned here, a new hydraulic dynamometer was constructed and introduced following a suggestion made by V.D.Shirokograd, which is described. It consists of a case which contains a plunger. This plunger is provided with a steel spiral which presses it in an upward direction. This motion is intercepted by means of a screw cap. Under this screw cap, within the same space, a packing is provided (for the plunger) which consists of a metal ring with a leather coating. The free space in the case under the plunger is filled with oil. Here a pressure manometer is mounted. Pressure upon the external surface of the plunger is transmitted to the oil below it and is indicated by means of a manometer. This device proved to be of use in connection with testing machines and presses. There is 1 figure.

Card 1/2

Short Reports (7)

32-12-63/71

AVAILABLE: Library of Congress

Card 2/2      1. Dynamometer-Construction      2. Manometer-Pressure

AUTHOR: Mazin, Ya.L. 32-12-64/71

TITLE: Short Reports (8) (Korotkiye soobshcheniya).

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 12, pp. 1521-1521 (USSR)

ABSTRACT: The author reports that in a Soviet plant, which is not mentioned here, two new kinds of quickly detachable screw clamps have been constructed and introduced. According to the attached drawing one of them, as usual, consists of a metal arc and a thrust bolt. A spherical support is provided as starting from the end of the arc; the bolt has a straight impact surface and is provided with a percussion thread. Because of the backstroke, a safety lock is provided, which is released by pressing the wing of the half-winged nut.

The second construction is similar to the one described above with the exception that here an additional adjustment on the thrust bolt is provided. In this case the thrust bolt consists of two parts: the one is similar to the one described above and is used for the definite adjustment of pressure. The other part of the bolt is a continuation of the first and has a screw box nut, which moves on a projection of the bolt only around its axis and is further pro-

Card 1/2

Short Reports (8)

32-12-64/71

vided with an internal thread, to which corresponds the external thread on the first bolt. The box possesses a handle and a releasable locking device. This attachment serves for the quicker adjustment as well as removing the screw clamp. There is 1 figure.

AVAILABLE: Library of Congress

Card 2/2 1. Clamps-Screw-Construction

*MAZIN, Ya.L.*

**MAZIN, Ya.L.**

Centrifugal friction clutches used in screw cutting lathes.

Stan. 1 instr. 28 no.12:36 D '57.

(MIRA 10:12)

(Lathes) (Clutches (Machinery))

(MAZIN, Ya. I.)  
MAZIN, Ya. I.

Special self-centering lathe chucks with radial and axial  
operations. Stan.i instr. 29 no.1:36 Ja '57. (MIRA 11:1)  
(Chucks)

L 13666-63

EPR/EMP(j)/EPF(c)/EPF(n)-2/EWT(m)/BDS/T-2/ES(s)-2/ES(v)

AFETC/ASD/SSD Ps-h/Pc-h/Pr-h/Pu-h/Pt-h/Pe-h RM/WW

ACCESSION NR: AP3001432 S/0138/63/000/004/0049/0052

AUTHOR: Mazin, Yu. A.; Stepanov, Yu. A.

TITLE: Apparatus for determining the fireproof and fire-resistant properties of flat objects

SOURCE: Kauchuk i rezina, no. 4, 1963, 49-52

TOPIC TAGS: combustion, fire resistance, flammability, vulcanized sheet, combustion rate

ABSTRACT: An apparatus, the first of its kind, permits the determination of fire-resistance, ignition rate, and linear combustion rate of textiles, rubberized textiles, and other objects in film and sheet form. It consists of a stand equipped with a 10 x 18-cm metallic grate or frame holding the sheet under investigation, and is provided with a mobile gas burner and air nozzle, the movements of which are automatic, being controlled electrically both as to location and duration of stay. The two eight-shift rows are along a

Card 1/2