

KANEVSKAYA, S.M.; RADZYUKEVICH, T.M.; KITAYEVA, L.N.; SOKOLOVA, N.N.

Introduction of a rapid drying SM-1 binder. Lit. proizv. no.10;
5-6 0 '63. (MIRA 16:12)

KANEVSKAYA, T. B. Cand. Tech. Sci.

Dissertation: "Investigation of the Fabrication Process and Properties of Hollow Axles Cast by Centrifugal Method." Moscow Order of the Labor Red Banner Higher Technical School. imeni N. E. Bauman, 20 Oct 47.

SO: Vechernyaya Moskva, Oct, 1947 (Project #17836)

KANEVSKAYA, T. B.

FA 62T34

VSM/Engineering
Casting, Centrifugal
Machinery - Construction

Mar 1948

"Results of a Conference on Centrifugal Casting,"
T. B. Kanevskaya, Candidate Tech Sci, 4½ pp

"Vest Mash" No 3

Centrifugal method permits casting of metal parts without any finishing. At the same time, such foreign material as metal particles or airholes is centrifuged to the center. The amount of metal used is also cut down. Gives some information on the technology of centrifugal casting.

62T34

KANEVSKAYA, T.B.

ZHEVTUNOV, P.P., kandidat tekhnicheskikh nauk; KANEVSKAYA, T.B., kandidat tekhnicheskikh nauk.

Experimental casting of radial and axial-flow turbodrills. [Trudy]
NVTU no. 45:143-153 '55. (MLRA 10:6)
(Foundry research) (Turbodrills)

KANEVSKAYA, T.B., kandidat tekhnicheskikh nauk.

Centrifugal casting defects and ways to avoid them. [Trudy] NVFU
no.45:165-175 '55. (MIRA 10:6)
(Centrifugal casting)

PHASE I BOOK EXPLOITATION 1064

Kanevskaya, Tamara Borisovna and Konstantinov, Leonid Sergeyevich

Mashiny i tekhnologiya tsentrobeshnogo lit'ya chugunnykh trub (Machines and Technology of Centrifugal Casting of Pipes) Moscow, Metallurgizdat, 1958. 275 p. 4,000 copies printed.

Ed.: Manakin, N.V.; Ed. of Publishing House: Golyatkina, A.G.; Tech. Ed.: Vaynshteyn, Ye.B.

PURPOSE: The purpose of this book is to serve as a manual for training centrifugal casting machine operators. It may also be used to improve the skills of personnel in centrifugal casting shops. The book was written in accordance with the program of the Glavnoye upravleniye trudovykh rezervov (Chief Administration of Labor Reserves) under the USSR Council of Ministers.

COVERAGE: This book consists of two parts. Part 1 deals with the historical development and the principles of casting. Preparation of the various types of molds and cores and the properties of metals and alloys are described. Part 2 is devoted to the principles and methods of centrifugal casting of gray cast iron pipes. Various types of centrifugal casting machines and their maintenance

Card 1/10

Machines and Technology of Centrifugal Casting (Cont.)

1064

are discussed. The authors also mention safety engineering in centrifugal casting shops, and also some of the engineering and managerial problems connected with it. There are numerous diagrams, graphs, and illustrations. No personalities are mentioned. There are 7 Soviet references.

TABLE OF CONTENTS:

Introduction	7
PART I. PRINCIPLES OF FOUNDRY OPERATIONS	
Ch. I. General Information	9
1. Fundamentals of foundry work and its importance in machine building	9
2. Brief historical outline of the development of foundries in our country	11
Ch. II. Molding Materials and Mixtures, and Testing Them	14
1. Testing for water content	15
2. Determination of clay content	16

Card 2/10

Machines and Technology of Centrifugal Casting (Cont.)	1064
3. Determination of grain composition	17
4. Testing for permeability to gases	17
5. Endurance test	18
6. Basic materials and composition of molding and core compounds	19
7. Classification of mold compounds	22
8. Preparation of mold and core compounds	26
Ch. III. Molding Practice	29
1. Patterns	29
2. Core-molding boxes	30
3. Molding tools	31
4. Flasks	33
5. Basic methods of molding	34
6. Assembly, clamping, and loading of flasks	39
7. Fundamentals of machine molding technique	39
8. Preparation of cores	43
9. Drying of molds and cores	48
10. Risers	52

Card 3/10

Machines and Technology of Centrifugal Casting (Cont.)	1064
Ch. IV. Metals and Alloys. Structure and Properties	55
1. Structure of metals and alloys	55
2. General characteristics of the properties of alloys	57
3. Mechanical properties of alloys	58
4. Castability of alloys	60
5. Cast iron, its structure and properties	67
6. Chemical composition of cast iron and its effect on the structure of castings	71
7. Effect of cooling conditions on the structure of castings	71
Ch. V. Technique of Melting Metal	73
1. Charge, fuel, fluxes	73
2. Melting in cupolas	74
3. Crucible furnaces	80
4. Reverberatory (flame) furnaces	80
5. Open-hearth furnaces	81
6. Electric furnaces	82
7. Small Bessemer converter	83
Ch. VI. Making of Ingots	84
1. Pouring	84

Card 4/10

Machines and Technology of Centrifugal Casting (Cont.)	1064
2. Ladle mechanisms	84
3. Shaking-out and cleaning of castings	88
4. Organization of cleaning houses	92
5. Basic types of defects in castings	92
6. Methods of repairing faulty castings	94
7. Pyrometric control in foundries	95
Ch. VII. Special Casting Methods	99
1. Casting in permanent molds	99
2. Pressure casting	104
3. Investment casting	109
4. Casting in shell molds	111
5. Continuous casting	114

PART II. CENTRIFUGAL CASTING

Ch. VIII. General Information on Centrifugal Forces and Centrifugal Casting	115
1. The three basic laws of mechanics	115
2. Centrifugal force and its practical application	117
3. General information about centrifugal casting	121

Card 5/10

Machines and Technology of Centrifugal Casting (Cont.)	1064
Ch. IX. Physical Principles of Centrifugal Casting	126
1. Free surface of a casting with vertical axis of rotation	126
2. Free surface of a casting with horizontal axis of rotation	129
3. Convection currents in molten metal and solidification of casting subjected to centrifugal forces	131
4. Separation of nonmetallic inclusions from molten metal subjected to centrifugal forces	136
5. Ligation of metal subjected to centrifugal forces	140
Ch. X. Required Speed of Rotation of the Mold	144
1. Importance of the speed of rotation of the mold in making shaped castings	145
2. Importance of speed of rotation of mold in making hollow cylindrical castings	146
3. Determination of the speed of rotation of the mold	149
4. Determination of the speed of rotation in working with vertical machines	152
5. Rotation regime for making thick-walled castings	156
6. Rotation regime for making castings from liquidating alloys	158

Card 6/10

Machines and Technology of Centrifugal Casting (Cont.)	1064
Ch. XI. Metering of Molten Metal	160
1. Metering of metal in machines for short castings	160
2. Metering of metal in machines for casting pipes with movable dies and pouring troughs	165
Ch. XII. Protective Mold Coatings	168
Ch. XIII. General Information on Centrifugal Casting of Cast Iron Pipes	172
1. Types of cast iron pipe and their application	172
2. Brief history of the development of centrifugal pipe casting	174
3. Various methods of centrifugal casting of pipes	177
4. Basic designs of centrifugal casting machines	179
Ch. XIV. Various Components of Centrifugal Casting Machines	184
1. Rotors	184
2. Cooling arrangements	188
3. Rollers	191
4. Transmissions	197
5. Braking mechanisms	200

Card 7/10

Machines and Technology of Centrifugal Casting (Cont.)	1064	
6. Pouring arrangements		200
7. Devices for extracting pipes from the mold		204
8. Lubrication systems		206
Ch. XV. Types and Design of Centrifugal Casting Machines		208
1. Machines for casting chilled pipes for subsequent annealing		208
2. Machines for casting pipes in heated metal molds without subsequent annealing		210
3. Machines for casting pipes in sand molds		212
4. Machines for sand ramming and shakeout machines		214
5. Lining of molds with sand by the rolling-on method		216
Ch. XVI. Assembly and Balancing of Centrifugal Casting Machines		221
Ch. XVII. Maintenance of Centrifugal Casting Machines		227
1. Types and schedule of maintenance operations		227
2. Inventory of essential spare parts		228
3. Order of assembly, dismantling and maintenance		229
4. Adjustment and balancing during maintenance operations		229
5. Inspection and control of assembly and operation of centrifugal casting machines		230

Card 8/10

Machines and Technology of Centrifugal Casting (Cont.) 1064

- | | |
|---|-----|
| 1. General rules for the protection of workers and safety engineering | 268 |
| 2. Safety engineering in centrifugal casting | 269 |
| 3. First aid | 270 |
| 4. Organization of labor and of work place of the machine operator | 272 |

AVAILABLE: Library of Congress

Card 10/10

GO/fal
2-18-59

18(5,7)

SOV/128-59-6-23/25

AUTHOR: Konstantinov, L.S., Baykov, A.I., Kanevskaya, T.B.,
Candidates of Technical Sciences; Lebedev, K.P.,
Assistant Professor, Levin, M.M., Novikov, P.G. Rozen-
fel'd. S.Ya. and Khakhalin, B.D., Candidates of Techni-
cal Sciences

TITLE: Letter to the Editor

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 6, pp 44-46

ABSTRACT: The authors begin their letter to the author by lis-
ting the difficulties, when explaining the basic terms
of mechanics and generally of every science. Since the
time of Newton there existed difficulties in explai-
ning and formulating correctly the term "power". With
the development of the sciences during the recent
years these difficulties have become even greater. The
Academician, B.N. Yur'yev is quoted from his book "Attempted
new Formulation of the Basic Laws on Mechanics
by Newton", Printing Office Academy of Sciences (USSR)
1952. But these new theories have had no influence on

Card 1/2

Letter to the Editor

SOV/128-59-6-23/25

the practical work of the engineer. In the field of centrifugal casting B.I. Loshkarev has written an article (published in *Iteynoye Proizvodstvo*, Nr 8, 1957), in which he made the following statement: 1) Metal is not influenced by centrifugal force and, therefore, the existing theories on centrifugal casting, based on centrifugal forces, do not correspond to the physical properties of the process. 2) The theory of centrifugal casting is not confirmed by his experiments; 3) The factors of centrifugal casting are to be explained by other factors, like: tendency forces, speed of chilling, temperature of the metal, process of crystallization. The author refutes the statements of Loshkarev and call his comprehensions "unintelligible" and "unfounded". There are 1 diagram and 9 Soviet references.

Card 2/2

VASILEVSKIY, P.F., kand. tekhn. nauk; DEMAKOV, A.Ye.; PLEKHANOV, P.N.;
ASSONOV, A.D.; VLASOV, V.I.; ~~KANEVSKAYA, T.B.~~; SHLENTSOV, K.G.;
KYZHIKOV, A.A.; RUBTSOV, N.N., zasl. deyatl' nauki i tekhniki
RSFSR, doktor tekhn. nauk prof., red.; MARTENS, S.L., red. izd-
va; EL'KIND, V.D., tekhn. red.

[Handbook on founding; shaped steel casting] Spravochnik lit'e-
shchika; fasonnoe stal'noe lit'e. [By] P.F.Vasilevskii i dr.
Pod obshchei red. N.N.Rubtsova. Moskva, Mashgiz, 1962. 611 p.
(MIRA 15:6)

(Founding--Handbooks, manuals, etc.)

KANEVSKAYA, T.M., red.; GERASIMOVA, Ye.S., tekhn. red.; PONOMAREVA, A.A., tekhn. red.

[World-wide socialist economic system] Mirovaia sotsialisticheskaiia sistema khorizistva. Moskva, Gosplanizdat, 1958. 559 p. (MIRA 11:12)

1. Akademiya nauk SSSR. Institut ekonomiki.
(Economics)

GROMOV, Ye.A.; KANYSKAYA, E.M., red.; PONOMAREVA, A.A., tekhn.red.;
GERASIMOVA, Ye.S., tekhn.red.

[Coal in the fuel economy of the United States] Ugol' v
toplivnom khoziaistve SShA. Moskva, Gosplanizdat, 1958.
243 p.

(United States--Coal)

(NIRA 12:7)

VOLODARSKIY, Lev Markovich; KANEVSKAYA, T.M., red.; GKRASIMOVA, Ye.S.,
tekhn.red.

[Decisive step in the realization of the basic economic
objective of the U.S.S.R.] Reshaisushchii shag v osushchestvle-
nii osnovnoi ekonomicheskoi zadachi SSSR. Moskva, Gosplanizdat,
1959. 94 p. (MIRA 12:9)

(Russia--Economic policy)

ALEKSEYEV, A.; ANCHISHKIN, A.; BERRI, L.; BARABANOV, M.; BOGOMOLOV, O.;
BRAGINSKIY, B.; IOFFE, Ya.; KOVAL', T.; KONAKOV, D.; KUVARIN, V.;
KUDROV, V.; LITVIYAKOV, P.; MURONTSEV, M.; OBOLENSKIY, K.; POKATAYEV,
Yu.; TOLKACHEV, A.; KATS, V., red.; KRYLOV, P., red.; KANEVSKAYA,
T.N., red.; GERASIMOVA, Ye.S., tekhn.red.

[Economic competition between the U.S.S.R. and the U.S.A.; a criticism
of the views of American bourgeois economists] Ekonomicheskoe sorevno-
vanie mezhdia SSSR i SSHA; kritika vzgliadov amerikanskikh burzhuaznykh
ekonomistov. Moskva, Gosplanizdat, 1959. 240 p. (MIRA 12:3)

1. Moscow. Nauchno-issledovatel'skiy ekonomicheskii institut. 2. Sotrud-
niki Nauchno-issledovatel'skogo ekonomicheskogo instituta Gosplana SSSR
(for all except Kats, Krylov, Kanevskaya, Gerasimova)
(United States--Economic conditions) (Russia--Economic conditions)

YAN TSEYAN'-BNY [Yang Chien-pei]; STARODUBROVSKAYA, V.N.; KOHOVALOV,
Ye.A.; GUAN' DA-TUN [Kuan Ta-t'ung]; OLYNYIK, I.P.; SHCHENOVA,
L.S.; KHE LI [Lo Li]; CHEHAN SY-TSYAN' [Chang SSI-ch'ien];
VOINOV, A.N.; SHIRYAYEV, S.L.; KURAKIN, V.A.; STUPOV, A.D., red.;
KAMVSKAYA, T.M., red.; GERASIMOVA, Ye.S., tekhn.red.

[Economy of the Chinese People's Republic, 1949-1959] Ekonomika
Kitaiskoj Narodnoj Respubliki, 1949-1959. Moskva, Gosplanisdat,
1959. 304 p. (MIRA 13:5)

1. Zaveduyushchiy sektorom ekonomiki stran narodnoy demokratii
Instituta ekonomiki AN SSSR (for Stupov).
(China--Economic conditions)

SAMBORSKIY, G.I.; KANEVSKAYA, T.M., red.; GERASIMOVA, Ye.S., tekhn.red.

[Concise handbook on the seven-year plan of the U.S.S.R.]
Kratki spravochnik o semiletнем плане SSSR. Moskva, Gos-
planizdat, 1960. 128 p. (MIRA 13:2)
(Russia--Economic policy)

†

STUPOV, Aleksey Dmitriyevich; Printsela uchastiye LUKOVNIKOVA, S.V.,
kand.sel'skokhos.nauk, mladshiy nauchnyy sotrudnik; KANEVSKAYA,
T.M., red.; GERASIMOVA, Ye.S., tekhn.red.

[Development of socialist agriculture in Bulgaria] Razvitie
sotsialisticheskogo sel'skogo khosisistva v Bolgarii. Moskva,
Gosplanizdat, 1960. 273 p. (MIRA 14:3)

1. Sektor ekonomiki stran narodnoy demokratii Instituta ekonomiki
Akademii nauk SSSR (for Lukovnikova).
(Bulgaria--Agriculture, Cooperative)

POPOV, Ivan Vasil'yevich; TOMASHPOL'SKIY, Leon'd Markovich;
KANEVSKAYA, T.M., red.; SEMENOV, L.V., red.; GERASIMOVA,
Ye.S., tekhn. red.

[The fuel power supply of the world socialist system] Toplivno-
energeticheskaya baza mirovoi sotsialisticheskoi sistemy. Mo-
skva, Izd-vo "Ekonomika," 1964. 269 p. (MIRA 17:3)

KANEVSKAYA, T.S.
BELYAYEVA, N.V.; KANEVSKAYA, T.S.

Acute hemolytic reaction (hemoglobinuria fever) in therapy with streptocide. Sov.med.19 no.9:48-51 8 '55. (MLRA 8:12)

1. In hospital'noy i propedevticheskoy terapevticheskoy kliniki (dir.-deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR prof. Ye. M. Tarayev) sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta i detskoy bol'nitsy Moskovsko-Kursko-Donbasskoy shelesnoy dorogi (nachal'nik A.N.Galkina)

(SULFANILAMIDE, injurious effects,
anemia, hemolytic, with hemoglobinuria)

(HEMOGLOBINURIA, etiology and pathogenesis
sulfanilamide, allergic reaction)

(ANEMIA, HEMOLYTIC, etiology and pathogenesis
sulfanilamide, allergic reaction)

(ALLERGY,
to sulfanilamide, causing hemolytic anemia with hemo-
globinuria)

LEVICH, A.M.; KHOROSHKO, A.F.; KANEVSKAYA, Ya.S. (Kiyev)

Hats made from synthetic materials. Shvein.prom. no.2:29 M-Ap
'61. (MIRA 4:4)

(Hats)

S/020/61/141/002/017/027
B101/B147

AUTHORS: Zubov, P. I., Lipatov, Yu. S., and Kanevskaya, Ye. A.

TITLE: Dependence of the conformation of a polymer chain in solution on the concentration of the latter

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 2, 1961, 387-388

TEXT: In previous papers (Vysokomol. soyed., 1, 432 (1959)); (Koll. zhurn., 21, 598 (1960)), the authors found that on transition from dilute to concentrated solutions of polymethacrylic acid the temperature coefficient of viscosity changes its sign. The present paper deals with this effect which is due to changes of conformation of the chain. The viscosity of aqueous solutions of polymethacrylic acid (molecular weight 330,000) with concentrations of 6.9 and 12% was measured at 20-65°C as a function of shear stress. A rotating viscosimeter of the Shvedov type was used for the purpose. Results are given in Fig. 1. This negative thixotropy is explained by coiling up of chains under the effect of shear stress. This effect has an upper and a lower temperature limit. The upper limit is the temperature of gel formation above which the chains cannot coil up any

Card 1/2

Dependence of the conformation ...

S/O20/61/141/002/017/027
B101/B147

longer. Gel formation can be explained by the fact that in coiled-up chains more COOH groups can react with each other. Thus, the conformation of polymer molecules in solution depends on the type of solvent and on the temperature and concentration of the solution. A paper by N. F. Bakeyev, V. S. Pshezhetskiy, and V. A. Kargin (*Vysokomol. soyed.*, 1, 1812 (1959)) is referred to. There are 1 figure and 10 references: 8 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: J. Elliassaf, A. Silberberg, A. Katchalsky, *Nature*, 25, 53 (1957).

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of Academy of Sciences USSR)

PRESENTED: June 20, 1961, by V. A. Kargin, Academician

SUBMITTED: June 12, 1961

Card 2/2

KANEVSKAYA, Ye.A.; LIPATOV, Yu.S.; ZUBOV, P.I.

Effect of addition agents on the structural viscosity of concentrated solutions of polymethacrylic acid. Vysokom.soed. 5 no.4:587-592
Ap . '63. (MIRA 16:5)

1. Institut fizicheskoy khimii AN SSSR i Institut obshchey i neorganicheskoy khimii AN BSSR.
(Methacrylic acid) (Viscosity)

KANEVSKAYA, Ye.A.; ZUBOV, P.I.; IVANCVA, L.V.; LIFIMOV, Ya.S.

Temperature dependence of light scattering and viscosity of
polymethacrylic acid solutions. Vysokom. soed. 6 no.6:901-987
Je '64 (MIRA 18:2)

1. Institut fizicheskoy khimii AN SSSR.

L 5496 1-45

EWT(m)/EPE(c)/EPR/EWP(j)/T

Pc-4/Pr-4/Ps-4

RPE W7:BM

... 1968 0100 ... 144

... Karyevskaya

... methyl methacrylate

... vyedineniya

... butyl methacrylate, methacrylic acid, styrene, acrylonitrile, structure, varnish coating, varnish

... Vysokomolekulyarnyye soedineniya

... In this study an attempt is made to determine the structure of the ... with the ... group ... investigation

Card

L 486144

ACCESSION NR: AP5016502

80--180C for 2 hr and rapidly cooled revealed the formation of ribbon structures. It is noted that ribbon-like structures are, apparently, formed in all polymers in the high-elastic state, provided that their decomposition temperature is higher than their T_g . Study of the morphology of films of PE obtained in a similar manner yielded analogous results. Thus, the formation in these films takes place at temperatures above the polymer's T_g . It is noted that distributed surface defects are observed in the course of raincoat coatings in the course of their aging at 80C for two days. Aging at comparatively low temperatures leads to a change in the structure of the coatings but favors the development of defects on the film surface. However, such aging could also cause structural changes and, in turn, affect the properties of the coatings. Orig. art. has: 5 figures. [BO]

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute); Gosudarstvennyy nauchno-issledovatel'skiy proyektnyy institut lakokrasitel'nyy promyshlennosti (State Design and Planning Scientific Research Institute for Coatings and Paint Industry)

SUBMITTED: 07J4164

ENCL: 00

SUB CODE: MT, CC

NO REF SOV: 003

OTHER: 000

ATD PRESS: 4031

Card 2/2 *gm*

5(4)

AUTHORS:

Urazovskiy, S. S., Kanevskaya, Z. M.

SOV/20-127-3-38/71

TITLE:

On the Electrical Conductivity of Various Modifications of Monochloroacetic Acid in Non-aqueous Solutions

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 612-614 (USSR)

ABSTRACT:

Monochloroacetic acid has two monotropic modifications, of which only the two stable modifications α and β with a melting point at 61.2° and 56.2° are investigated in the present paper. Acetone and dioxane water mixtures served as solvents. For measuring electrical conductivity (EC), a device worked out and described by the authors in reference 2, which is based upon a scheme by V. K. Semenchko, B. V. Yarofayev and V. V. Serpinskiy was used. The authors determined the EC of solutions in the concentration interval of 1 - 0.002 N at 25° . For even greater dilutions, extrapolation was carried out. Figure 1 shows the equivalent EC for the modifications α and β in acetone in dependence on dilution. A considerable difference in EC (φ) was found for the two modifications as also for the solutions in dioxane. With an increase of the water content in the dioxane solution this difference vanishes.

Card 1/4

SOV/20-127-3-38/71

On the Electrical Conductivity of Various Modifications of Monochloroacetic Acid in Non-aqueous Solutions

Extrapolation was calculated according to Walde's formula (Ref 4)

$$\lambda_0 = \lambda_\varphi + \frac{65.7}{\varepsilon \eta \sqrt{c}}$$

where ε denotes dielectric constant of the solvent, η - its viscosity. A further approximation for λ_0 was graphically obtained by successive approximation according to Fuoss and Kraus (Ref 5) by Onsager's formula for electrical conductivity (Ref 6) in consideration of the incomplete dissociation

$\lambda_\varphi = \left[\lambda_0 + (A+B\lambda_0) \sqrt{ac} \right] \alpha$. A, B denote the electrophoretic and the relaxation constant dependent on η and the dielectric constant of the solvent, and α - the degree of dissociation which may be expressed by

$$\alpha = \frac{\lambda_\varphi}{\lambda_0 \phi(z)} \frac{1}{(A+B\lambda_0) \sqrt{ac}} \quad \text{with} \quad \phi(z) = 1-z \left\{ 1-z \left[1-z (\dots)^{1/2} \right]^{1/2} \right\}^{1/2}$$

and $z = \frac{\lambda_\varphi}{\lambda_0}$. With the help of $\phi(z)$ it is possible

Card 2/4

On the Electrical Conductivity of Various Modifications of Monochloroacetic Acid in Non-aqueous Solutions

SOV/20-127-3-38/71

to find the dissociation constant, and, in a more convenient form for graphical representation from the dependence of

$\frac{\phi(z)}{\lambda_\varphi}$ upon $\lambda_\varphi \frac{\sigma \gamma_\pm^2}{\phi(z)}$ a λ'_0 , for which the same method of approximation as already described, may be used for the purpose of finding a λ'_0 to $\lambda_0^{(n-1)}$. In the present paper only λ'_0 is calculated, which gave the limit $\lambda_0(\alpha) = 59.17$ and $\lambda_0(\beta) = 59.38$ for the two modifications. The degree of dissociation was determined for dilutions $\varphi = 350$ according to the formula $K = \frac{\alpha^2 c_0}{1 - \alpha} \gamma_\pm^2$ (the activity coefficient γ was determined

according to the Debye-Hueckel limiting law. K_α was found to amount to $6.75 \cdot 10^{-8}$ and $K_\beta = 12.28 \cdot 10^{-8}$. Figure 2 shows $\lambda(\varphi)$ for the two modifications α and β . It was found that the difference in EC for α and β vanishes with increasing dilution.

Card 3/4

SOV/20-127-3-38/71
On the Electrical Conductivity of Various Modifications of Monochloroacetic
Acid in Non-aqueous Solutions

It is assumed that the considerable difference existing at higher concentrations is due to the different degrees of dissociation existing at different dilutions, and that the latter depends upon the configuration of the molecule (monomeric configuration with internal hydrogen bond or chainlike configuration). There are 2 figures and 7 references, 3 of which are Soviet.

ASSOCIATION: Khar'kovskiy politekhnicheskij institut im. V. I. Lenina
(Khar'kov Polytechnic Institute imeni V. I. Lenin)

PRESENTED: March 23, 1959, by P. A. Rebinder, Academician

SUBMITTED: March 20, 1959

Card 4/4

URAZOVSKIY, S.S. [deceased]; KANEVSKAYA, Z.M.

Temperature dependence of the electric conductivity of the melts of certain polymorphic substances. Ukr.khim.zhur. 27 no.3:296-302 '61. (MIRA 14:11)

1. Khar'kovskiy politekhnicheskii institut im. V.I.Lenina. (Organic compounds--Electric properties)

LUTSKIY, A.Ye.; LITVINENKO, L.M.; SHUBINA, L.V.; MAL'NEZ, L.Ya.; CHESHKO, E.S.;
GOL'BERKOVA, A.S.; KANEVSKAYA, Z.M.

Interaction of substituents through aromatic rings linked
by a bridge group. Zhur.ob.khim. 35 no.12:2083-2090 D '65.
(MIRA 19:1)

1. Khar'kovskiy politekhnicheskii institut im. V.I.Lenina.
Submitted May 28, 1964.

USSR Cultivated Plants. General Problems

M-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24929

Author : Kanevskaya, Z. Ye., Ovsyannivkova, M.A., Kozelkova, N.I., Bel'skaya, L. V.

Inst : Not given

Title : The Application of the Luminescent Method of Determining the Viability of Agricultural Crop Seeds

Orig Pub: V sb.: Lyuminestsentnyy analiz. Minsk, AN BSSR, 1956, 20-24 Diskus., 24

Abstract: During the time from March to May 1955 at the Central Seed Control Laboratory of the Ministry of Agriculture USSR the viability of seeds was determined in corn (90 specimens, 50 varieties), flax (diverse varieties) and oats (18 specimens, 9 varieties) by means of the luminescent method, by

Card 1/4

USSR / Cultivated Plants. General Problems.

M-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24929

Abstract: dying with indigo carmine and acid fuchsine in 0.1% concentration, as well as through germinating according to the state standard GOST 5055-49. Determinations through these methods yielded exact results. With the luminescent method 50 seeds were slit open along the embryo and spread out moist on filter paper in Petrie dishes along the half side with the cut facing upwards and were viewed in ultraviolet light at an excitation 365 mu, using a portable Lyum-1 unit with a PRK-4 bulb and an UFS-3 light filter. The embryos of viable corn seeds produced a bluish-violet fluorescence, the brilliance of which corresponded to the degree of viability, while the embryos which were nonviable fluoresced yellowish white, brown, dark gray or yellowish green. The luminescence of the

Card 2/4

8

USSR / Cultivated Plants. General Problems.

M-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24929

Abstract: Yellow luminescence of the embryo rootlets was characteristic of the nonviable seeds. - B. Ye. Kravtsova

Card 4/4

9

KANEVSKIY, A.G.

GUBIN, N.I., insh.; STOLYARENKO, D.I. ; KANEVSKIY, A.G.

Expand large-block construction of apartment houses in all possible ways. Transp.stroi. 7 no.5:3-6 My '57. (MIRA 10:11)
(Apartment houses)

PROKHOROV, D.V., insh.; ~~KARVYSKIY, A.G., insh.~~
KARVYSKIY

Demonstration construction of houses along railroad lines. Transp.
stroi. 8 no.11:18-20 N '58. (MIRA 12:1)
(Railroads--Buildings and structures)
(Apartment houses)

KANEVSKIY, A.G.

On the construction sites of demonstration building.
Transp.stroi. 9 no.9:13-18 S '59. (MIRA 13:2)

1. Zamestitel' nachal'nika planovo-proizvodstvennogo otдела
Orgtransstroya.
(Railroads--Construction) (Road construction)
(Hydraulic engineering)

SESSAREVSKIY, A.N., insh.; KANVSKIY, A.G.

Construction of the Abakan - Tayshet railroad. Transp. stroi.
10 no. 12:5-7 D '60. (MIRA 13:12)
(Railroads--Construction)

KANEVSKIY A.G.

BYKOVSKIY, V.S., kand.tekhn.nauk; KANEVSKIY, A.G., inzh.

Use of centralized communication systems in the construction of
new railroads. Transp.stroi. 11 no.3:11-12 Mr '61. (MIRA 14:3)
(Railroads—Construction)

KANEVSKIY, A.G., inzh.; MATROSOV, M.A., inzh.; SOKOLOV, F.G.; inzh.

Let's raise the quality of construction in every way. *Transp.stroi.*
11 no.4:13-15 Ap '61. (MIRA 14:5)

(Construction industry)

LISKOVETS, S.A., insh.; KANEVSKIY, A.G., insh.

Construction of the Abakan - Tayshet line. Transp.stroi. 12
no.10:6-10 0 '62. (MIRA 15:12)
(Railroads--Construction)

BYKOVSKIY, V.S.; KANEVSKIY, A.G.; PETROV, A.F.; BIRYUKOV, V.D., inzh.,
retsensent; DOBSHITS, M.L., inzh., red.....

[Dispatcher control in railroad construction] Dispetcherskoe
upravlenie zheleznodorozhnym stroitel'stvom. Moskva, Trans-
zheldorizdat, 1963. 95 p. (MIRA 16:5)

(Railroads--Construction)

(Railroads--Design and communication systems)

ASEYEV, Ya.T., inzh.; KANEVSKIY, A.G., inzh.

Analysis of network scheduling at the stage of the elaboration of labor resources. Transp. stroi. 15 no.11:35-36
'65. (MIRA 18:11)

ISAYEV, Aleksey Il'ich, prof., doktor tekhn. nauk; KOYRE, Viktor
Yevseyevich; GOLITSYN, Ya.K., inzh., ved. red.; KANEVSKIY,
B.M., inzh., red.; SHVETSOV, G.V., tekhn. red.

[Finish milling of large surfaces instead of scraping] Chistovoe
frezerovanie bol'shikh ploskosti vmesto shabrenia. Moskva,
Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 29 p.
(Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 10.
No. M-58-231/37) (MIRA 16:3)

(Metal cutting)

L 63712-65 EWT(1)/EWA(h)
N. R. APR 14 1968

member: Etkin, V. S. (Active member)

MEMBER LIST ACTIVE

1.11.E. Investigation of signal limiting in a regenerative frequency converter
Работы по радиотехнике, т. 20, no. 5, 1965, 70, 75

TOPIC TACS: frequency converter, regenerative frequency converter
V. S. Etkin et al. (Trans. IRE, NO. 5, 1965, 70, 75) and Ser
part of the book

threshold (on a i-f model); the effect of the gain on the limiting threshold (at Cope
frequency), the effect of the input power on the limiting threshold

ACCESSION NR: AP5014058

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi
(Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 7 Dec 63

ENGL: 00

SUB CODE: EC

NO REF SOV: 002

OTHER: 004

L 7815-66 EWT(1)/EWA(h)

ACCESSION NR: AP5027629

UR/0109/65/010/011/2067/2069
621.375.421.018.756.001.5

AUTHOR: Lobarev, A. S.; Kanevskiy, B. Z.; Etkin, V. S.

TITLE: Investigation of superbroadband modem video amplifiers 25

SOURCE: Radiotekhnika i elektronika, v. 10, no. 11, 1965, 2067-2069

TOPIC TAGS: video amplifier, waveguide, broadband transmission

38
B

ABSTRACT: The gain of a modem video amplifier, within 0-650 Mc, has been investigated; a gain formula is derived by the directed-graph method, and a gain vs. frequency curve is plotted. An experimental verification included a modulator and a demodulator connected via a superbroadband circulator. The modulator of a reflex-balance-converter type featured a waveguide section with two connected-in-opposition parametric diodes; the section could be tuned by means of a plunger and a three-probe impedance transformer. The signal was applied to both diodes simultaneously through the side wall of the waveguide. A superbroadband detector section with a D405B diode and a reduced output capacitance was used as a demodulator. The pumping power was 50-70 mw; the modulator and the demodulator

Card 1/2

Card 2/2

KANEVSKIY, G.I., prof.; MALKOVA-RYABOVA, V.I., dotsent.

"Health resorts of the U.S.S.R." Reviewed by G.I. Kanovskii,
V.I. Malkova-Ryabova. Vop. kur., fizioter. i lech. fiz. kul't.
23 no.4:366-368 J1-Ag '63. (MIRA 17:9)

KANEVSKIY, G. L.

KANEVSKIY, G. L. "Physical and functional therapy in reconstructive surgery of the tendon-muscular apparatus", In the collection: *Boevaya travma nervnoy sistemy*, Khar'kov, 1948, p. 264-70.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No.11, 1949)

KANEVSKIY, G. L.

"The treatment of frostbite with radiant energy and therapeutic exercise in the open healing method", Authors: G. L. Kanevskiy, Ye. R. Tsitritskiy, M. M. Levinson, and F. Ye. Orel, in the collection: Boyevaya travma nervnoy sistemy, KHar'kov, 1948, p. 296-99

SO: U-3261 10 April 53(Letopis - Zhurnal 'nykh Statey No. 11, 1949)

KANEVSKIY, G. L.

20082 KANEVSKIY, G. L. Vsesoyuznaya gipestonicheskaya konperentsiya na plenumе
gravnykh respublikanskikh terapevtov. [Mackva. Okt. 1948 g.] Vracheb. delo, 1949,
No. 6, stb. 561-68, 3(obg.)

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

GALAGAN, A.D.; KANEVSKIY, G.L., prof., doktor med.nauk, otv.red.

[Health resorts, sanatoriums, and rest homes of the Ukrainian S.S.R.] Kurorty, sanatorii i doma otdykha USSR. Khar'kov. Pt.2. [Crimea Province; bibliography of Russian literature 1920-1955] Krymskaya oblast'; bibliografiya otechestvennoi literatury 1920-1955-gg. (MIRA 14:1)

1. Khar'kov. Derzhavna naukova medychna biblioteka. 2. Glavnyy bibliograf Khar'kovskoy gosudarstvennoy nauchnoy meditsinskoy biblioteki Ministerstva zdoravookhraneniya USSR (for Galagan). (BIBLIOGRAPHY--CRIMEA--HEALTH RESORTS, WATERING PLACES, ETC.)

KANEVSKIY, G.L.

KANEVSKIY, G.L.; MALKOVA-RYABOVA, B.L.

Forty years of physical therapy in the Ukraine. Vop.kur., fizioter. i
lech. fis.kul't. 22 no.5:41-46 S-O '57. (MIRA 11-2)

1. Iz kafedry fizioterpii Ukrainskogo instituta usoverhsenstvovaniya
vrachey (dir. - dotsent I.I.Ovsiyenko) i Khar'kovskoy oblastnoy
klinicheskoy bal'neologicheskoy lechebnitsy (dir. - kandidat medi-
tsinskikh nauk P.L.Shpak)
(UKRAINE--PHYSICAL THERPY)

KANEVSKIY, G.L.
~~KANEVSKIY, G.L.~~

Conditioned response reactions in physiotherapy. Vop.kur.fisioter. i
lech.fis.kul't. 22 no.6:22-24 N-D '57. (MIRA 11:2)

1. Zaveduyushchiy kafedroy fisioterpii Ukrainskogo instituta
usoverashenstvovaniya vrachey (dir. - dotsent I.I.Ovsiyenko)
(PHYSICAL THERAPY)
(CONDITIONED RESPONSE)
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)

KANEVSKIY, G.L., prof.

Letter to the editor. Vop. kur., fizioter. i lech. fis. kul't. 25
no.4:373-375 J1-Ag '60. (MIRA 13:9)

1. Zaved. kafedroy fizioterapii Ukrainakogo instituta usovershenstvo-
vaniya vrachey.

(AIR, IONIZED)

KANEVSKIY, G.L., prof.; KIRICHINSKIY, A.R., prof.; OSIPOV, B.L., prof.
MALKOVA-RYABOVA, B.L., dotsent

S.M. Svidler; on his seventieth birthday. Vop. kur. fizioter. i
lech. fis. kul't. 25 no. 5:468 9-0 '60. (MIRA 13:10)
(SVIDLER, SAMUIL MIKHAILOVICH, 1889-)

STAROBINSKIY, I.M., prof.; OBRISOV, A.N., prof.; KANEVSKIY, G.L., prof.;
MILITSYN, V.A., prof.; PARFENOV, A.P., prof.

Resolution of the All-Union Methodological Conference on Problems
in the Teaching of Physical Therapy in the Medical Institutes and
in the Institutes for Advanced Training of Physicians (Leningrad,
January 27-28, 1961). Vop. kur., fizioter. i lech. fiz. kul't.
26 no.4:373-376 J1-Ag '61. (MIRA 15:1)

1. ~~Chief~~ correspondent AMN SSSR (for ObrisoV).
(PHYSICAL THERAPY...STUDY AND TEACHING)

KRAVCHIK, Feliks Ivanovich; KANEVSKIY, I.L., retsenzent; LAPINA, N.V.,
retsenzent; DZHEKLOMANOV, T.L., nauchnyy red.; SHAKHNOVA, V.M.,
red.; SHISHKOVA, L.M., tekhn. red.

[Planning and organization of the repair of ships] Planirovanie
i organizatsiia remonta sudov. Leningrad, Gos.soiuznoe izd-vo
sudostroit. promyshl., 1961. 158 p. (MIRA 15:2)
(Ships—Maintenance and repair)

KANEVSKIY, I. N.

"Diffraction of a Convergent Cylindrical Wave on a Cylinder and a Sphere."

paper presented at the 4th All-Union Conf. on Acoustics, Moscow, 26 May - ⁷ Jun 58.

KANEVSKIY, I.N.

46-4-10/17

AUTHORS: Kanevskiy, I.N. and Naugol'nykh, K.A.

TITLE: Colloquium on Radiation Pressure (Kollokvium po radiatsionnomu davleniyu)

PERIODICAL: Akusticheskiy Zhurnal, 1957, Vol.III, Nr 4, pp.366-367 (USSR)

ABSTRACT: This is a report on the Colloquium which took place on the 20-21 May, 1955 at Marseilles, which was organised by UNESCO.

AVAILABLE: Library of Congress.

Card 1/1 1. Radiation pressure-Conference-Report

KANEVSKIY, I. N. and ROSENBERG, L. D.

Acoustical Institute of the Academy of Sciences of the USSR, Moscow

"Diffraction Pattern near the Focal Line of a Converging Cylindrical Wave" paper
presented at 2nd International Congress on Acoustics, Cambridge; Mass., 17-23
June 1956.

So: B-100200

AUTHOR:

Kanevskiy, I.N. and Rozenberg, L.D.

46-1-6/20

TITLE:

Evaluation of the sound field in the focal region of a cylindrical focussing system (Raschet zvukovogo pola v fokalnoy oblasti tsilindricheskoy fokusiruyushchey sistemy.)

PERIODICAL:

"Akusticheskiy Zhurnal" (Journal of Acoustics), 1957, Vol. III, No. 1, pp. 46 - 61 (U.S.S.R.)

ABSTRACT:

Rozenberg, 1) has evaluated the magnitudes of acoustic pressure and of velocity of oscillations along the axis (in the focus) of a cylindrical focussing surface. In the present article, the mathematical method of calculation of the acoustic field is given for regions in the proximity of the focus, both for infinite and finite lengths of focussing surfaces and for various radii of their curvature. It is assumed that the wavelength is small as compared with the focal length of the system.

First, the general expression for the potential at any point of the region, as represented by the potential at the surface of the cylinder is derived by applying Green's theorem for the case of infinitely long cylinders with various radii of curvature. The potential then becomes the contour integral of the Hankel function of the second kind and of zero order and of the potential and its derivative at the surface of the cylinder. Results permit the application of the same technique to cylinders of finite lengths. Rozenberg, 1) has shown that fringe effects in this case may be neglected provided the distance from the end of the axis is not less than 1-2 Fresnel Zones. The analysis of the thus obtained formulae shows that

Card 1/2

SOV/46-5-2-4/34

AUTHOR: Kanevskiy, I.N.

TITLE: Calculation of Diffraction of a Converging Cylindrical Wave on a Cylinder (Raschet difraktsii skhodyashcheysya tsilindricheskoy volny na tsilindre)

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 2, pp 151-156 (USSR)

ABSTRACT: The author discusses diffraction of a converging cylindrical wave on an infinite cylinder placed coaxially with the incident wave-front (Fig.1). An expression for the potential of the resultant field and an asymptotic expression for the intensity of the scattered wave and the effective scattering cross-section are obtained. The results are compared with the case of scattering of a plane wave on a cylinder whose perimeter is small compared with the incident wavelength. It is found that the expression which gives the intensity of the scattered cylindrical wave includes a multiplier which is a function of the angle supported by the cylindrical wave-front at the cylinder axes. Furthermore, in the case of

Card 1/2 scattering of cylindrical waves, the intensity of the

SOV/46-5-2-4/34
Calculation of Diffraction of a Converging Cylindrical Wave on a
Cylinder

reflected wave is proportional to the fourth power of the frequency, while in scattering of plane waves it is proportional to the cube of the frequency. The paper is entirely theoretical. Acknowledgments are made to L.D. Rozenberg, G.D. Malyuzhinets, A.Ye. Vil'ner and T.M. Namestnikova for their advice. There are 3 figures and 2 references, of which 1 is Soviet and 1 a translation from English into Russian.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Acoustics
Institute, Ac. Sc. USSR, Moscow)

SUBMITTED: May 9, 1958

Card 2/2

24(1)

SOV/46-6-3-5/32

AUTHOR: Kanevskiy, I.N.

TITLE: Calculation of Diffraction of a Convergent Cylindrical Wave on a Sphere
(Raschet difraktsii skhodnyashcheysya tsilindricheskoy volny na sfere)

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 3, pp 294-300 (USSR)

ABSTRACT: The author discusses diffraction of an infinite convergent cylindrical wave on a sphere whose centre lies on the wave axis. An expression is obtained for the resultant field potential as well as asymptotic expressions for the scattered wave intensity and the effective scattering cross-section. These expressions are compared with the case of scattering of a plane wave on a sphere whose perimeter is small compared with the incident wavelength. The paper is entirely theoretical. Acknowledgments are made to L.D. Rosenberg, G.D. Malyushinets, A.Ye. Vil'ner, T.M. Namestnikova for their advice and to N.G. Astapova for her help in numerical calculations. There are 3 figures and 5 references, 3 of which are Soviet and 2 translations from English into Russian.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Acoustics Institute, Ac.Sc. USSR, Moscow)

SUBMITTED: May 9, 1958
Card 1/1

9(2,3), 28(2)

AUTHOR: Kanevskiy, I. N.

SOV/115-59-8-26/33

TITLE: A Device for Measuring Ultrasonic Fields in a Liquid

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 8, pp 51 - 54
(USSR)

ABSTRACT: For a detailed investigation of ultrasound fields of a complicated configuration, created by focussing radiators and focussing systems, a receiver is required, whose dimensions are smaller than the wavelength in the medium, and a precision coordinate device for its shifting. At the Fizicheskiy institut AN SSSR (Institute of Physics of the AS USSR), G. I. Kaminir developed a prototype of such a device under the supervision of L. D. Rozenberg. Using this device, the distributions of ultrasonic fields in liquids were plotted manually. Based on this experience, the device described in this article was developed. The most complicated part is the coordinate device, shown in Figure 1, which was designed by Z. G. Levin. The precision coordinate device may be used also for other investigations, for example, for determining the spatial distribution of electromagnetic fields, tempera-

Card 1/2

A Device for Measuring Ultrasonic Fields in a Liquid SOV/115-59-8-26/33

tures and other physical magnitudes. Selsyn drives are used for automatic recording of measuring results. Selsyn-transmitter ND-501 is driven by a 30-watt DVA-UZ motor equipped with a three-stage reducer. Selsyn-receivers NS-501 and NS-404 are used for moving the coordinate device in horizontal and vertical direction. The coordinate device is operated from a control panel containing relays of type MKU-48, a step-down transformer, a 24-volt rectifier and switches for changing the direction of rotation of the selsyns. The measuring amplifier was described by Yu. B. Semennikov [Ref 1]. For recording the measuring results an electron-ray oscillograph ENO-1 is used. A miniature feeler, described by Ye. V. Romanenko [Ref 2] is used as a receiver. The feeler is connected to the preliminary amplifier. The diameter of the receiver head of the feeler is 0.2 mm. When working at low-amplitude ultrasonic frequencies a GSS-6 generator is used as transducer of electric oscillations for the ultrasound converter. There are 2 diagrams and 2 Soviet references.

Card 2/2

24.2000
24.1800
~~24.14~~

672:2

AUTHOR: Kanevskiy, I. N.

SOV/20-129-4-14/68

TITLE: The Analysis of the Field Distortions of a Plane Piezoelectric²¹ Radiator

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 4, pp 766-768 (USSR)

ABSTRACT: In order to obtain high-frequency ultrasonic waves²¹, plane piezoelectric radiators (quartz or barium titanate ceramics) are used. R. Baer (Ref 1) and S. N. Rshvkin (Ref 2) assumed nearly simultaneously independent of each other that the fields mentioned in the title are insufficiently homogeneous. Both authors started from the assumption that the flexural vibrations play the principal part in the production of the oblique beams. According to the author's opinion, there is no cause for a neglect of the possible influence of longitudinal vibrations. The present paper is now intended to check this assumption. First, the image of the surface vibrations of quadratic piezoelectric radiators made from barium-titanate ceramics was investigated. These radiators operated at the resonance frequencies of 430 and 800 kilocycles in air. The image thus ob- ✓

Card 1/4

67252

SOV/20-129-4-14/68

The Analysis of the Field Distortions of a Plane Piezoelectric Radiator

tained was a negative reproduction of the Chladni figures; it has a distinctly marked periodic structure. Part of this image is illustrated in an attached figure. The second figure shows the result of applying the photo-diffusion method during operation of the radiator in a liquid medium. Also in the latter case the character of amplitude distribution remained the same as in operation in air. At 800 kilocycles the structure periodicity is reduced to about the half. The phase shifts measured at the frequencies of 450 and 830 kilocycles in air and in liquids (water and transformer oil) are near 0° . Also the maximum value of the phase shifts $\Delta\varphi$ remains below 40° . This indicates that the symmetric transformer vibrations play the main part. Next, the amplitude distribution of the radiator surface vibrations in water are recorded, and this distribution was then spectroscopically analyzed. The eighth component with the period 0.65 has the largest amplitude. The spectrogram permits conclusions as to the composition of the radiation field. Two waves correspond to the n-th component of the spectrum, which propagate in the liquid along a straight

Card 2/4

67252

SOV/20-129-4-14/68

The Analysis of the Field Distortions of a Plane Piezoelectric Radiator

which forms the angles $\alpha = \pm \arcsin(n\lambda_{\text{liq}}/a)$ with the normal on to the radiator surface. Here λ denotes the wavelength in the liquid and a the distance between the front surfaces of the radiator. That component of the spectrum the period of which is equal to half the wavelength of the longitudinal wave in the radiator material has the maximum amplitude. The maxima and minima of pressure lie on straight lines, which are the bisectrices of the angles between the normals to the wave fronts. For the purpose of checking the formula for the direction of these bisectrices, the author carried out experiments with radiators made from barium-titanate ceramics in water. The calculated and the experimentally measured values of this angle are in good agreement. It is further said that the author thanks L. D. Rosenberg for his interest and for his attention in connection with the present investigation. There are 3 figures, 1 table, and 5 references, 2 of which are Soviet.

ASSOCIATION: Akusticheskiy Institut Akademii nauk SSSR
 Card 3/4 (Institute of Acoustics of the Academy of Sciences, USSR) ✓

67252

The Analysis of the Field Distortions of a Plane Piezoelectric Radiator

SOV/20-129-4-14/68

PRESENTED: July 16, 1959, by N. N. Andreyev, Academician

SUBMITTED: July 15, 1959

Card 4/4

81377
S/046/60/006/01/21/033
B008/B011

24.1200

AUTHOR: Kanevskiy, I. N.

TITLE: Experimental Investigation of Cylindrical Focusing Systems

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 1, pp. 123 - 124

TEXT: The author offers experimental investigation results of cylindrical focusing radiators made of barium titanate ceramics. The distribution of the fields was recorded with a "microhydrophone" (Ref. 2) with a diameter of 0.02 mm, and with a coordinate precision instrument. Preliminary investigations of the radiators with aperture angles of 30, 60, and 90° revealed a marked difference between experimental and theoretical results in a frequency range of 600 - 900 cycles (Fig. 1). Fig. 2 shows pictures of the same radiator on two planes perpendicular to each other. As can be seen, the wave fronts differ from the cylindrical ones. In order to find the cause underlying this difference, the author examined the distribution of amplitudes of the radiator surface. The amplitude was found to be irregularly distributed, this irregularity exhibiting an evidently periodic character. Fig. 3 shows an

Card 1/3

Experimental Investigation of Cylindrical
Focusing Systems

81377
S/046/60/006/01/21/033
B008/B011

example of the distribution of amplitudes during the operation of the radiator in the air. The same picture was observed with the radiator operating in a liquid. It reminds very much of the field distortions of flat radiators (Ref. 3), which are chiefly caused by longitudinal standing waves in the material of a finitely large radiator. The irregular periodic distribution of amplitudes is equivalent to the presence of two waves heading toward each other on the radiator surface. These waves yield a radiation at an angle to the normal of the vibrating surface. This radiation distorts the field and reduces the amplification coefficient of the converter. In order to reduce the field distortion, such a frequency can be selected for the converter excitation that the vibration producing spurious radiation has a minimum amplitude (Fig. 4). The method of correcting the field by the operation of the radiator on non-resonant frequency can, however, be applied only if no high intensities are required. For the elimination of oblique beams arising during the radiator operation on resonance frequency, a semiwave filter of Duralumin was used. It was placed coaxially in front of the surface. An example of field distribution with filter is shown in Fig. 1 (Curve 3). After introducing the filter, the secondary maxima were appreciably reduced which entailed

Card 2/3

Experimental Investigation of Cylindrical
Focusing Systems

81377
S/046/60/006/01/21/033
B008/B011

a rise in the amplification coefficient. Its value was even somewhat
higher than the computed one (by 23%). There are 4 figures and 3 Soviet
references.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Institute of
Acoustics AS USSR, Moscow) *UH*

SUBMITTED: August 3, 1959

Card 3/3

KANEVSKIY, I.N.

Steady forces arising in a sound field. Akust. zhur. 7 no.1:3-17
'61. (MIRA 14:4)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound)

KANEVSKIY, I. N., Cand Phys-Math Sci -- (diss) "Research into cylindri-
cally focussing systems." Moscow, 1960. 12 pp; (Academy of Sciences
USSR, Acoustics Inst); 175 copies; free; (KL, 3-60, 130)

20234

6.8000 (1063, 1155)^{2nd}

S: 26/51/007/001/004/015
2104/3204

AUTHOR: Kanevskiy, I. N.

TITLE: Investigation of the field structure of a cylindrical ultrasonic concentrator

PERIODICAL: Akusticheskiy zhurnal; v. 7: no. 1; 1961. 40-46

TEXT: In an earlier paper (Ref. 1), Kanevskiy et al. calculated the field in the range of a focus of a converging cylindrical front with uniform amplitude distribution over this front. They obtained a formula permitting calculation of the field also in an angular region near the focus. Furthermore, the author obtains an expression for the potential within a range of the focus in which a uniform amplitude is demanded. On the basis of the velocity potential

$$\Phi = \int_0^c \left[\Phi_r \frac{\partial H_0(kR)}{\partial a} - \left(\frac{\partial \Phi_r}{\partial r} \right)_{r=0} H_0(kR) \right] dr. \quad (1)$$

where $H_0(kR)$ is a Hankel function of second kind. R is the distance between

Card 1/13

2023h

Investigation of the ...

3, 246/61/007/001/004/015
7:14/B204

the emitting surface and the observer, the author investigates the emission from a surface forming part of a circular cylinder and producing a convergent cylindrical front. Relation (3) is obtained for the velocity potential.

$$\Phi = v_0 \sqrt{\frac{\pi}{2k\pi}} e^{-i(kr - \omega t)} \sum_{n=0}^{\infty} e_n e^{in\pi/2} J_n(kr) \int_{-\alpha_m}^{\alpha_m} \Psi(\alpha) \cos n(\alpha - \alpha_0) d\alpha. \quad (3)$$

where v_0 is the amplitude velocity and $\Psi(\alpha)$ its distribution over the surface of the cylinder. By means of this expression, the relief shown in Fig. 1 was constructed. In the horizontal plane of this spatial diagram the points of observation in polar coordinates are given, and in perpendicular direction the values of the potential modulus. A change in the aperture angle of the front merely changes the scale of field structure; a decrease of this angle causes a flattening of structure. As these results hold only for cylindrical fronts of infinite length, in the following, the dependence of the potential on the length of the emitting surface is studied. Calculation is simplified by the author's confining himself to investigating the field on the axis of the front. He obtains expressions for calculating the

Card 2/83

20234

S/046/61/007/001/004/015
B104/B204

Investigation of the ...

field and constructs the diagram shown in Fig. 4, which shows the velocity potential as a function of h/f , where h is the half height of the emitter and f the frequency. The results here obtained theoretically are partly checked by means of a cylindrical emitter made from barium-titanate ceramics. Because of an inhomogeneous motion of emitter surface, this emitter produced an amplitude-modulated wave front. By means of a semiwave filter, the disturbances of the wave field could be suppressed. The survey obtained by theoretical calculation could be well verified. The amplitude distribution and the phase distribution of a semi-cylindrical concentrator are shown in Figs. 6a and 6b. The phase jumps by 180° as demanded by theory are satisfied only for the zeroth and first maximum. With growing distance from the front axis, phase disturbances and amplitude curves increase. The author thanks L. D. Rozenberg for some valuable advices and A. D. Karyugina for his help in numerical computations and measurements. There are 6 figures and 7 Soviet-bloc references.

ASSOCIATION: Akusticheskiy institut AN SSSR Moskva (Institute of Acoustics of the AS USSR, Moscow)

Card 3/3

24.1800 (1063,1482)

30049

S/046/61/007/004/004/014
B139/B102

AUTHOR: Kanevskiy, I. N.

TITLE: A simple method of visualizing ultrasonic fields and fluxes

PERIODICAL: Akusticheskiy zhurnal, v. 7, no. 4, 1961, 436-441

TEXT: The usual methods of visualizing ultrasonic fields are too complicated. The author describes a simpler method which is based on degasification of the liquid in the ultrasonic field. The model of a compressible sphere is considered to establish the correlation between bubble concentration and field distribution. Owing to the effect of the elastic forces in the standing wave field, such a sphere moves towards the pressure maximum and minimum, respectively, depending on whether its diameter is larger or smaller than the resonance diameter. The sphere is not affected by the field forces, if its diameter equals the resonance diameter. By comparing the bubble diameter with the resonance diameter the position of the bubbles in the sound field can be determined, using

X

the relation $d = \frac{1}{\pi f} \sqrt{\frac{3K\rho}{\rho}}$, where f is the resonance oscillation

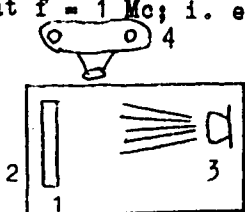
Card 1/3

30049
S/O46/61/007/004/004/014
B139/B102

A simple method of visualizing ...

frequency; $\gamma = c_p/c_v$ of the bubble gas; p is the pressure in the bubble; and ρ is the density of the liquid irradiated with ultrasonics. The surface tension can be neglected. For visualizing the ultrasonic field in water by bubbles, γ has to be 1.14; $\rho = 1$; and $p = 1.02 \cdot 10^6$ dyn/cm², thus almost atmospheric pressure. The resonance diameter, d , of the bubbles would be $6.57/f$; the quantity d being expressed in mm, and the quantity f in kcps. The measurements were made with the apparatus shown in Fig. 1 at $f = 1$ Mc; i. e., the visible bubbles were larger than the resonance

X



bubbles and thus concentrated in the pressure nodes. Experimental arrangement: A piezoelectric transformer 1 is placed in a liquid tank 2 where also a submerged lamp 3 is mounted. The tank bottom and walls are rubber-lined and provided with rubber plates forming an angle with the incident oscillation. Thus, the waves are reflected repeatedly and damped. The field

can be observed in the tank with the naked eye and photographed with the

Card 2/3

30049

S/046/61/007/004/004/014
B139/B102

A simple method of visualizing ...

camera mounted above the tank. This method of visualizing standing wave fields is relatively sensitive (about 0.5 w/cm^2). It is particularly suitable for visualizing ultrasonic wind. There are 6 figures and 8 references: 5 Soviet and 3 non-Soviet. The three references to English-language publications read as follows: K. Yosioka, G. Kawasima, Acustica, 1955, 2, 3, 167-173; K. Yosioka, G. Kawasima, H. Hirano, Acustica, 1955, 2, 3, 173-178; A. Carrelli, F. Porreca, Nuovo Cimento, 1953, 10, 1, 98-102.

ASSOCIATION: Akusticheskiy institut AN SSSR Moskva (Acoustics Institute AS USSR, Moscow)

SUBMITTED: March 14, 1961

Card 3/3

KANEVSKIY, I.N.; ROZENBERG, L.D.

Cylindrical focusing systems with nonuniform amplitude distribution. Akust. zhur. 9 no.4:418-423 '63. (MIRA 17:3)

1. Akusticheskiy institut AN SSSR, Moskva.

KANEVSKIY, I.N.

Some characteristics of convergent wave fronts in dissipative media. Akust. zhur. 9 no.3:324-328 '63. (MIRA 16:8)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskooy promyshlennosti, Moskva.
(Sound waves)

ap4044614

AUTHOR: Kanevskiy, I. N.

Method of ultrasonic ... absorptive

... zhurnal

... at ...

TOPIC TAGS: ultrasound, absorption, energy dissipation, pressure

... is a continuation of ... (124--128) in which ... waves in a dissipative medium ... axial line in the axial plane ... of pressure in the ... end, expressed ...

L 6881-65

AP4044614

... of a cylindrical ...
... the pressure distri-
... places are mapped
... usually small, an approximat-
... wave comp-
... absorption in the medium causes appreciable ...

L 00977--66 EWT(l)/EEC(m)/EEC-h/T/EWP(k)/EWA(h)

ACCESSION NR: AP5019062

UR/0286/65/000/012/0088/0088
534.612.002.56

AUTHOR: Kanevskiy, I. N.

TITLE: Instrument for measuring ultrasonic radiation pressure. Class 42, No. 172082

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 88

TOPIC TAGS: ultrasonic radiation, radiation pressure, sensor, oscillator tank circuit, discriminator

ABSTRACT: An Author Certificate has been issued for an instrument which measures ultrasonic radiation pressure. The device consists of a sensor, a high-frequency generator, and a meter. The sensor is included in the tank circuit of the oscillator, which changes the oscillator output frequency according to the pressure applied to it. The frequency deviations are monitored by a meter at the output of a discriminator circuit which converts the frequency excursions into current amplitude variation (see Fig. 1 of Enclosure). Orig. art. has: 1 figure. [JS]

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut red-kometallicheskoj promyshlennosti (State Scientific Research and Design Institute of the Rare Metal Industry)

Card 1/3

L 00977-66

ACCESSION NR: AP5019062

SUBMITTED: 15Jun64

ENCL: 01

①
SUB CODE: GP, EC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4068

Card 2/3

L 00977-66

ACCESSION NR: AP5019062

ENCLOSURE: 01

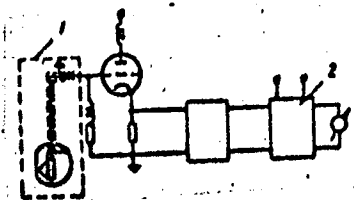


Fig. 1. Diagram of instrument for measuring ultrasonic radiation pressure

1 - Sensor; 2 - discriminator.

Card

3/3

KANEVSKIY, K.

POLAND/Cultivated Plants - Grains:

M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15511

Author : K. Kanevskiy

Inst :

Title : The Different Kinds of Plants Belonging to the "Species" Triticum polonicum L. and Their Position in Wheat Evolution.

(Paznorodnost' rasteniy "vida" Triticum polonicum L. i ikh polozheniya v evolyutsionnoy sisteme pshenitsy).

Orig Pub : Byul. Pol'skoy AN, Otd. 2, 1956, 4, No 2, 43-47.

Abstract : Research was conducted in the laboratories of the department of botany at the Superior Agricultural School in Warsaw which showed that the series of tetraploid long-glumed wheat corresponds to the tetraploid species of wheat with short glumes. The species Tr. polonicum encountered in the natural state corresponds to the species Tr. durum. The original form Tr. polonicoides,

Card 1/2

POLAND/Cultivated Plants - Grains.

M.

APPROVED FOR RELEASE: 06/13/2000, CIA-RDP86-00513R000520410007-2

whose origin is not known, corresponds to the species Tr. dicoccum. The genetic and anatomo-morphological of this form permits its classification in a separate species. By means of inter-species hybridization one obtained wheat with long-glumes which were analogous according to other features to the species Tr. turgidum → Tr. dicoccoides → as well as Tr. vulgare → and Tr. spelta. Wheat with long glumes may be extremely manifold, consisting of a series of forms, named by the author polonicoides.

Card 2/2

KANEVSKIY, K.

Using industrial wastes in producing building materials. Zhil.
stroil. no.7:11 '58. (MIRA 12:6)

1. Glavnyy inzhener Upravleniya kapital'nogo stroitel'stva Uralvagon-
zavoda, Nizhniy Tagil.
(Building materials)