UNCLASSIFIED PROCESSING DATE--23OCT70

2/2 008

CIRC ACCESSION NO--AP0120877

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONFORMATIONS OF THE MOLECULS WITH THREE AMIDE GROUPS: N,ACETYLGLYCYLGLYCINE, N,ACETYL,L (D) ALANYL,L,ALANINE AND N,ACETYL,L,VALYL,L,VALINE HAVE BEEN INVESTIGATED. THE GEOMETRICAL PARAMETERS OF FAVORABLE FORMS WITHOUT HYDROGEN BONDING HAVE BEEN CALCULATED USING THE MINIMIZATION PROCEDURE AND DEPICTED ON THE TWO DIMENSIONAL PHI (C PRIMEALPHA MINUS N) MINUS PSI (C PRIMEALPHA MINUS C PRIME) CONFORMATIONAL MAPS. THE VALUES OF THE PHI AND PSI ANGLES IN THE PREFERRED CONFORMATIONS OF CORRESPONDING COMPOUNDS WITH TWO AMINO GROUPS CAN BE USED AS THE ZERO APPROXIMATION IN THE SEARCH FOR THE POTENTIAL ENERGY MINIMUM OF THE OLIGOPEPTIDES. THE SIGNIFICANT SCATTERING IN THE PHI AND PSI VALUES FOUND FOR THE METHYLAMIDES OF N ACETYLDIPEPTIDES AS WELL AS THE DEVIATIONS FROM ADDITIVITY OF ENERGIES ARISING WITH INCREASE OF PEPTIDE CHAIN LENGTH CAN BE CONSIDERED AS THE EVIDENCE FOR MUTUAL DEPENDENCE OF CONFORMATIONAL STATE OF THE TWO AMINO ACID RESIDUES. THE MOST STABLE AMONG THE STRETCHED FORMS INVESTIGATED ARE THOSE THAT HAVE THE ANGLES OF ROTATION ABOUT THE C PRIMEALPHA MINUS N AND C PRIMEALPHA C PRIME BONDS CLOSE TO THOSE OCCURING IN THE RIGHT HANDED ALPHA HELIX AND IN THE BETA STRUCTURE. THE EFFECT OF DISTURBANCES OF THE STEREOREGULARITY OF THE ASYMMETRIC CENTERS IN THE PEPTIDE CHAIN ARE ALSO DISCUSSED. FACILITY: INSTITUTE FOR CHEMISTRY OF NATURAL PRODUCTS, ACADEMY OF SCIENCES, USSR, MOSCOW.

UNCLASSIFIED

UDC 576.858.75(A2).098.31

USSR

TSVETKOVA, I. V. and LIPKIND, M. A., Institute of Biological and Medical Chemistry and Institute of Virology imeni D. I. Ivanovskiy, Academy of Medical Sciences USSR

"An Attempt to Obtain Direct Proof of the Enzymatic (Neuraminidase) Nature of the Process of "Unmasking" Latent Hemagglutinin in Influenza A2 Virus"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 70, pp 409-414

Abstract: An attempt was made to find direct evidence of a relationship between the "unmasking" of latent hemagglutinin and neuraminidase activity in influenza A2 virus. It was hypothesized that if the "unmasking" process, i.e., the breakdown of the virus-inhibitor complex, occurs under the influence of viral neuraminic acid should accumulate in the system where the hemagglutinin titer of the virus (Kop strain) increases spontaneously. In the case of the inhibitor-sensitive Bar strain, on the other hand, there should be no such accumulation. When the allantoic fluid of 13-day-old chick embryos was infected with the two influenza strains, however, the content of neuraminic acid increased by 70.7% and 43.5% in fluid inoculated with inhibitor-resistant Kop strain and inhibitor-sensitive Bar strain, respectively. During storage of the virus-containing allantoic fluids, accompanied

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TSVETKOVA, I. V., [illegible], and LIPKIND, M. A., Institute of Biological and Medical Chemistry, USSR Academy of [illegible] Sciences, Moscow, D. I. Ivanovskiy Institute of Virology, USSR Academy [illegible] and Moscow Academy [illegible]

USSR

TSVETKOVA, I. V., et al, Voprosy Virusologii, No 4, Jul/Aug 70, pp [illegible]

by a spontaneous increase in the hemagglutinin titer of the [illegible]-resistant strain, no statistically significant accumulation of [illegible] acid was exhibited. Thus, no direct evidence of the [illegible] nature of the [illegible] process could be obtained.

USSR

UDC 539.3

LIPKIN, V. I.

"On the Problem of the Experimental Study of Plates With an Opening for Bending"

V sb. Issled. po stroit. konstruktsiyam (Studies on Structures -- Collection of Works), Tomsk, Tomsk University, 1972, pp 144-148 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V187)

Translation: Deformations and bends of a rectangular plate hinge-fastened along the outer contour with a rectangular opening and loaded by a uniform pressure were determined experimentally. The results were compared with theoretical results. The poor convergence of the theoretical method in the vicinity of the opening is pointed out. N. A. Kulakov.

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UDC 621.357.8.035.4:669.14(088.8)

USSR

SHTAN'KO, V. M., LIPKIN, Ya. N., NOVIKOV, V. G., VOLKOV, Yu. M., STRIZHAK, G. K., RABINOVICH, O. Ya., ZIMOVETS, V. G., DANILOV, A. M., MATVEYEV, Yu. M., MEDNIKOV, Yu. A.

"Electrolyte for Electrochemical Polishing of Products"

USSR Author's Certificate No 306186, Filed 28/10/69, Published 21/07/71, (Translated from Referativnyy Zhurnal, Khimiya, No 3, 1972, Abstract No 3 L283 P from the Resume).

Translation: An electrolyte for electrochemical polishing of products, for example of stainless steel, differing in that in order to improve the quality of polishing and intensify the process, a foam suppressor is introduced to the electrolyte with the following relationship of components (in wt.%): orthophosphoric acid 30-70, H_2SO_4 10-40, H_2O 10-30 and above 100%. Surfactants based on peptide and polypeptide salts, 1-10 g/l, foam suppressor 0.001-1 g/l. Polymethylsiloxane liquid is used as the foam suppressor.

UNCLASSIFIED PROCESSING DATE--16OCT70

1/2 010

TITLE--A COMPARATIVE STUDY OF THE CELL TISSUE RESPOND TO THE EFFECT OF ANTIBIOTICS AND THEIR COMBINATIONS -U-

AUTHOR--LIPKINA, G.S.

COUNTRY OF INFO--USSR

SOURCE--ANTIBIOTIKI, 1970, VOL 15, NR 5, PP 449-455

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--TISSUE CULTURE, CYTOLOGY, TETRACYCLINE, KANAMYCIN, LEVOMYCETIN, OLEANDOMYCIN/(U)AMPICILLIN ANTIBIOTIC

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/0145 STEP NO--UR/0297/70/015/005/0449/0455

CIRC ACCESSION NO--AP0114541

UNCLASSIFIED

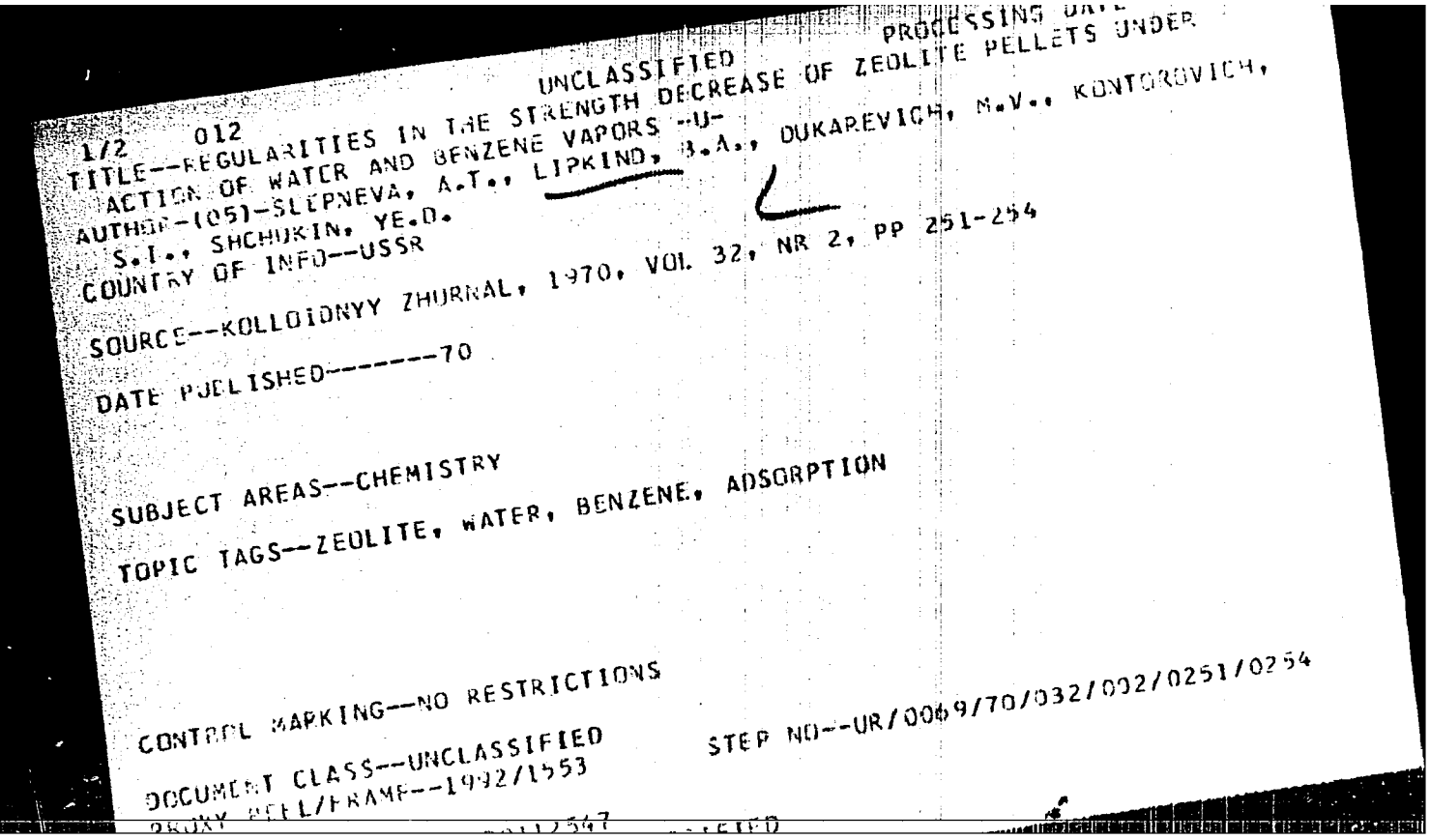
2/2 010 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0114541

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. OUT OF 6 ANTIBIOTICS STUDIED, I. E. AMPICILLIN, KANAMYCIN, LINCOMYCIN, OLEANDOMYCIN, LEVOMYCETIN (CHLORAMPHENICOL) AND TETRACYCLINE, THE LATTER TWO WERE MOST TOXIC FOR TISSUE CELL CULTURES. THE MAXIMUM DOSE OF TETRACYCLINE PRODUCING NO CHANGES IN THE CELL STATE (IN 24 HOURS AFTER THE ANTIBIOTIC ADDITION TO THE MEDIUM) WAS 62 MUG-ML AND THAT OF LEVOMYCETIN WAS 125 MUG-ML. TETRACYCLINE COMBINATIONS WITH LEVOMYCETIN PRODUCED MORE SIGNIFICANT CHANGES IN THE CELL STATE THAN EACH ANTIBIOTIC USED ALONE (IN DOSES USED IN COMBINATIONS). THE USE OF TETRACYCLINE IN COMBINATION WITH LINCOMYCIN OR OLEANDOMYCIN DID NOT RESULT IN AN INCREASE OF ITS TOXICITY. COMBINATION OF KANAMYCIN WITH AMPICILLIN EVEN IN A VERY HIGH SUMMATION DOSE OF 1000 MUG-ML (500 MUG-ML OF EVERY ANTIBIOTIC) HAD NO IRRITATING EFFECT ON THE CELLS (WITH RESPECT TO THE CRITERIA USED).

FACILITY: CENTRAL POST GRADUATE MEDICAL INSTITUTE, MOSCOW.

UNCLASSIFIED



1/2 012 UNCLASSIFIED PROCESSING DATE
TITLE--REGULARITIES IN THE STRENGTH DECREASE OF ZEOLITE PELLETS UNDER ACTION OF WATER AND BENZENE VAPORS --U-
AUTHOR-(05)-SLEPNEVA, A.T., LIPKIND, B.A., DUKAREVICH, M.V., KONTOROVICH, S.I., SHCHUKIN, YE.D.
COUNTRY OF INFO--USSR

SOURCE--KOLLOIDNYY ZHURNAL, 1970, VOL 32, NR 2, PP 251-254

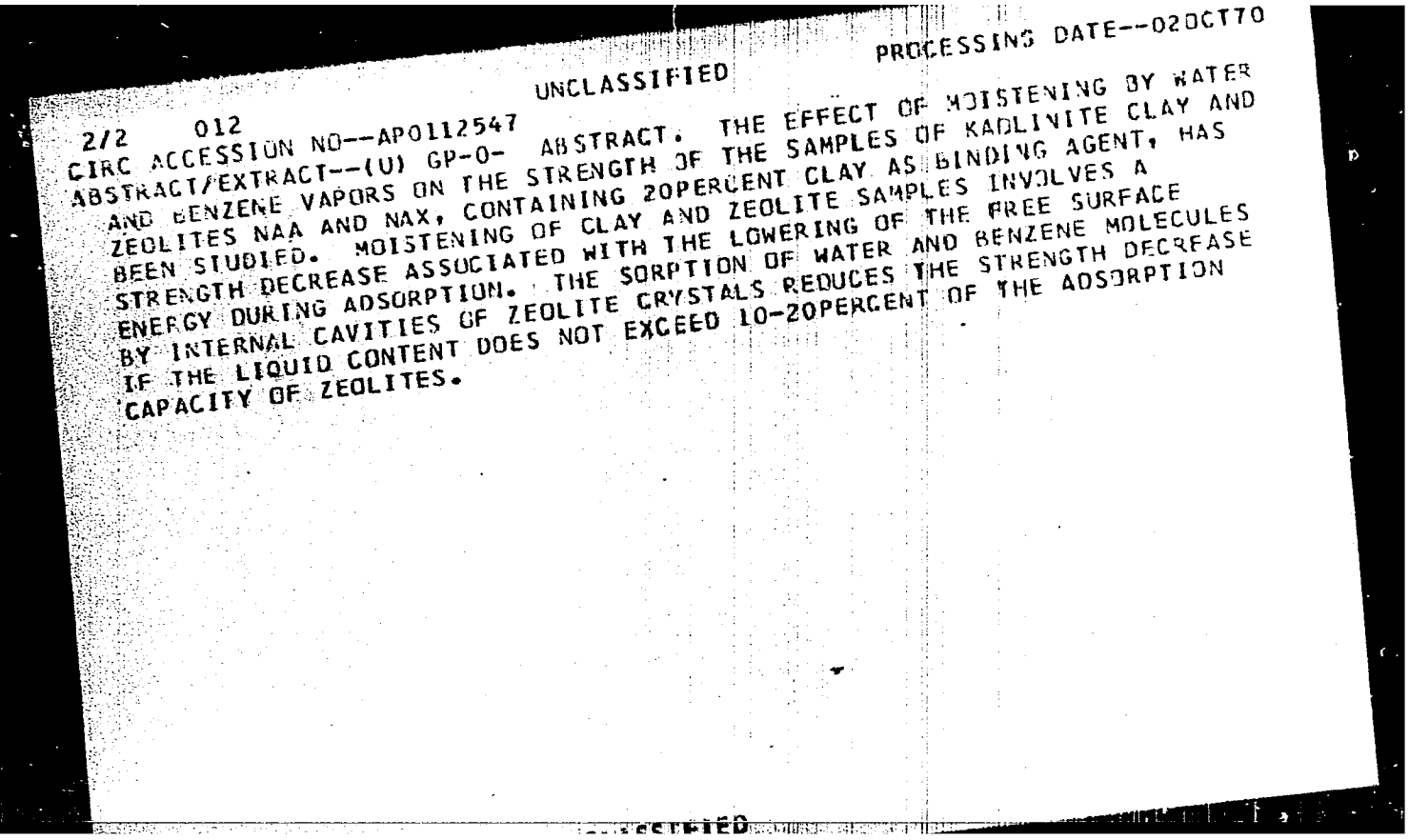
DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ZEOLITE, WATER, BENZENE, ADSORPTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED STEP NO--UR/0069/70/032/002/0251/0254
PROXY REEL/FRAME--1992/1553



UNCLASSIFIED

2/2 012 PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0112547

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF MOISTENING BY WATER AND BENZENE VAPORS ON THE STRENGTH OF THE SAMPLES OF KADLINITE CLAY AND ZEOLITES NAA AND NAX, CONTAINING 20PERCENT CLAY AS BINDING AGENT, HAS BEEN STUDIED. MOISTENING OF CLAY AND ZEOLITE SAMPLES INVOLVES A STRENGTH DECREASE ASSOCIATED WITH THE LOWERING OF THE FREE SURFACE ENERGY DURING ADSORPTION. THE SORPTION OF WATER AND BENZENE MOLECULES BY INTERNAL CAVITIES OF ZEOLITE CRYSTALS REDUCES THE STRENGTH DECREASE IF THE LIQUID CONTENT DOES NOT EXCEED 10-20PERCENT OF THE ADSORPTION CAPACITY OF ZEOLITES.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--

1/2 019

TITLE--THEORETICAL STUDY OF N,ACETYL,L,ALANINE METHYLAMIDE CONFORMATIONS IN VARIOUS MEDIA -U-

AUTHOR-(03)-LIPKIND, G.M., ARKHIPOVA, S.F., POPOV, YE.M.

COUNTRY OF INFO--USSR

SOURCE--ZH. STRUKT. KHIM. 1970, 11(1), 121-6 (RUSS)

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ALANINE, AMIDE, HYDROGEN BONDING, ENTROPY, DIPOLE MOMENT, SOLVENT ACTION

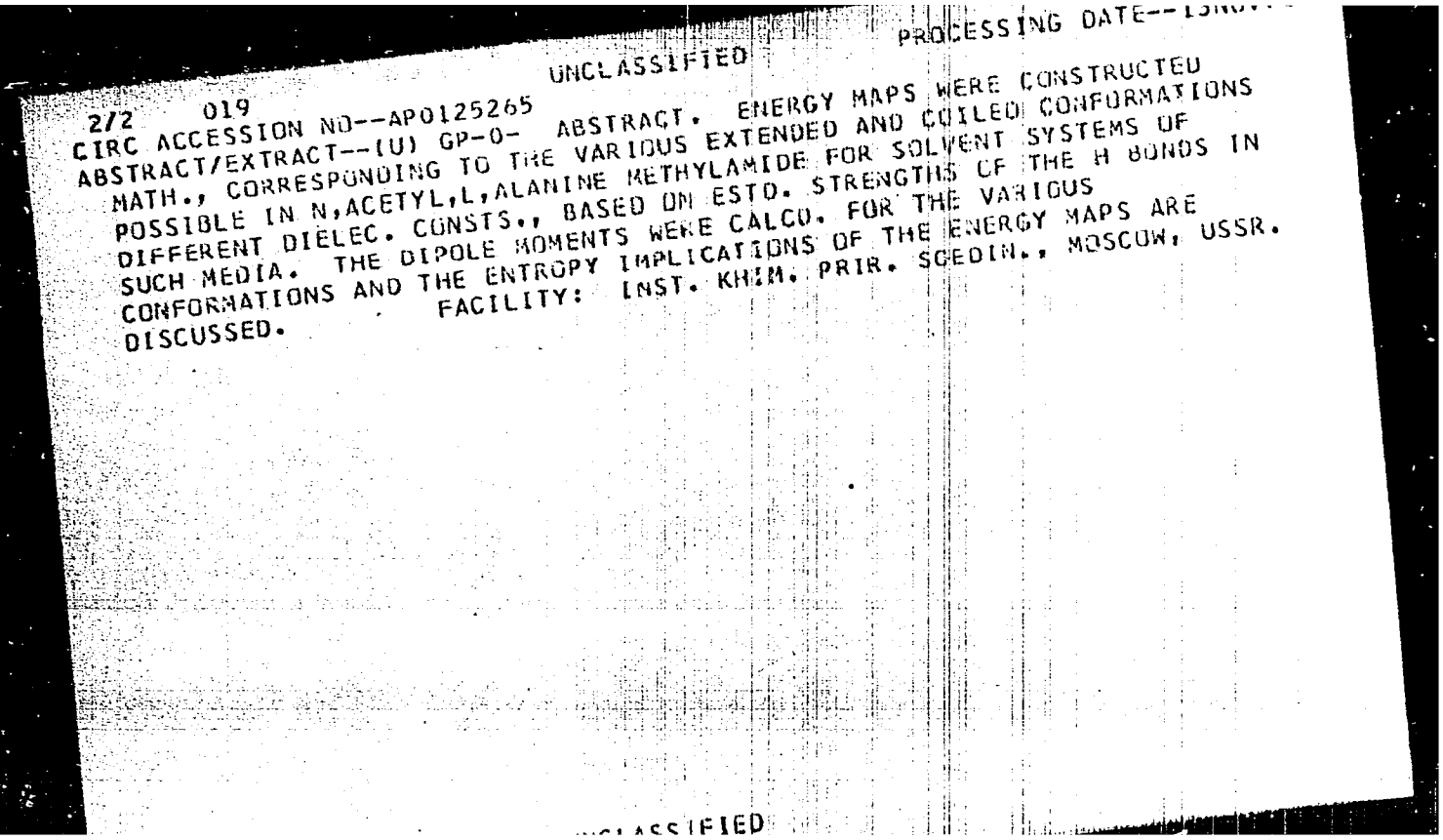
CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0192/70/011/001/0121/0126

PROXY REEL/FRAME--2000/1643

AIRC ACCESSION NO--AP0125265 UNCLASSIFIED



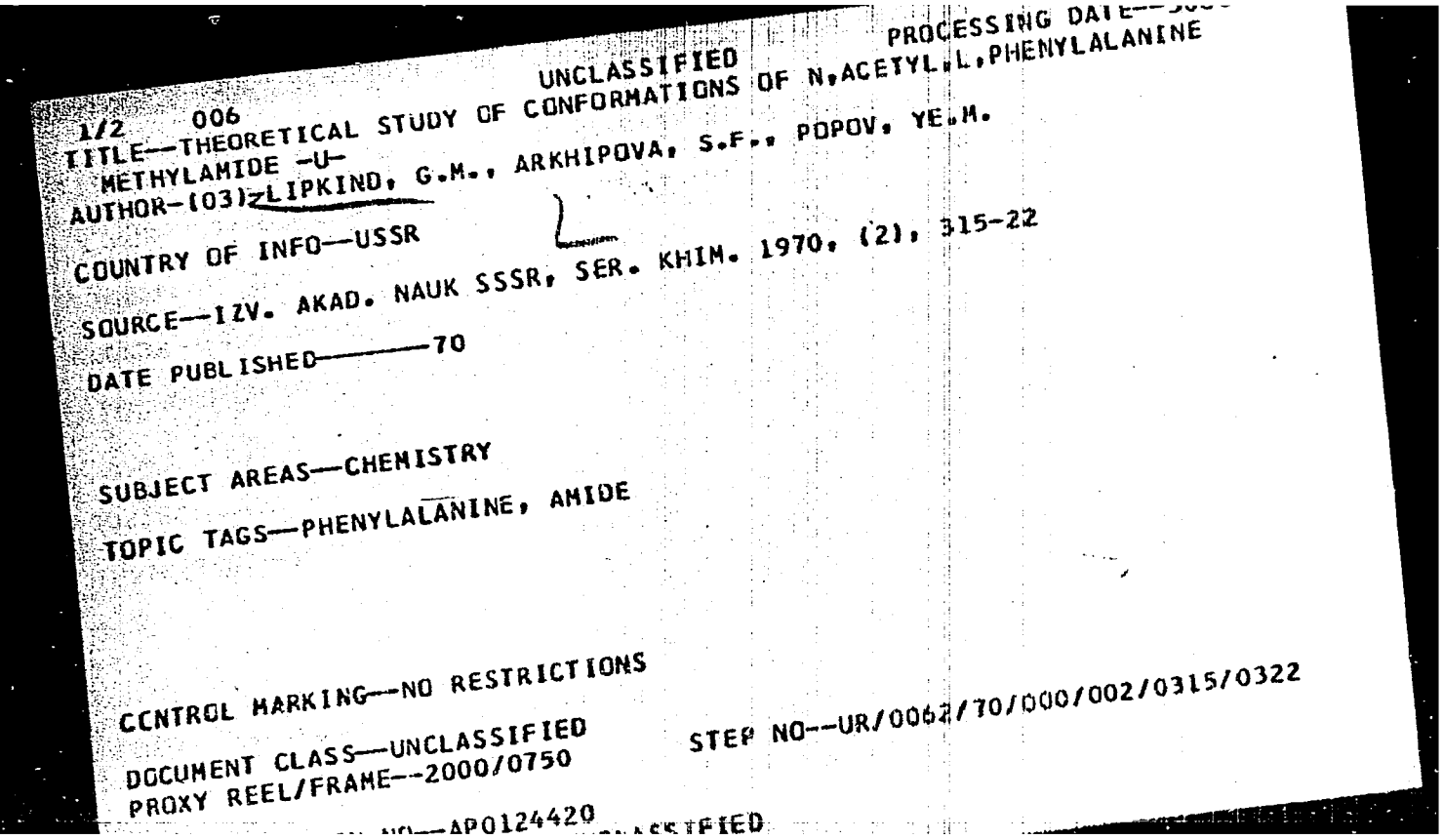
UNCLASSIFIED PROCESSING DATE--

2/2 019

CIRC ACCESSION NO--AP0125265

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ENERGY MAPS WERE CONSTRUCTED MATH., CORRESPONDING TO THE VARIOUS EXTENDED AND COILED CONFORMATIONS POSSIBLE IN N,ACETYL,L,ALANINE METHYLAMIDE FOR SOLVENT SYSTEMS OF DIFFERENT DIELEC. CONSTS., BASED ON ESTD. STRENGTHS OF THE H BONDS IN SUCH MEDIA. THE DIPOLE MOMENTS WERE CALCD. FOR THE VARIOUS CONFORMATIONS AND THE ENTROPY IMPLICATIONS OF THE ENERGY MAPS ARE DISCUSSED. FACILITY: INST. KHIM. PRIR. SOEDIN., MOSCOW, USSR.

UNCLASSIFIED



1/2 006 UNCLASSIFIED PROCESSING DATE--
TITLE--THEORETICAL STUDY OF CONFORMATIONS OF N,ACETYL,L,PHENYLALANINE METHYLAMIDE -U-
AUTHOR-(03)-LIPKIND, G.M., ARKHIPOVA, S.F., POPOV, YE.M.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (2), 315-22

DATE PUBLISHED----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHENYLALANINE, AMIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED STEP NO--UR/0062/70/000/002/0315/0322
PROXY REEL/FRAME--2000/0750

--AP0124420 --CLASSIFIED

UNCLASSIFIED PROCESSING DATE--30OCT70

2/2 006

CIRC ACCESSION NO--AP0124420

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CONFORMATIONAL ANAL. WAS MADE FOR N,ACETYL,L,PHENYLALANINE METHYLAMIDE AND THE MOL. MAP PROJECTIONS WERE PRESENTED AND DISCUSSED.

FACILITY: INST. KHIM. PRIR. SOEDIN., MOSCOW, USSR.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--THEORETICAL ANALYSIS OF CONFORMATIONS OF SOME METHYLAMIDES OF N ACETYLDIPEPTIDES -U-

AUTHOR-(03)-LIPKIND, G.M., ARKHIPOVA, S.F., POPOV, YE.M.

COUNTRY OF INFO--USSR

SOURCE--MOLEKULYARNAYA BIOLOGIYA, 1970, VOL 4, NR 3, PP 331-338

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, CHEMISTRY

TOPIC TAGS--PEPTIDE, MOLECULAR STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1998/0177 STEP NO--UR/0463/70/004/003/0331/0338

CIRC ACCESSION NO--AP0120877

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--23OCT70

2/2 008

CIRC ACCESSION NO--AP0120877

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CONFORMATIONS OF THE MOLECULS WITH THREE AMIDE GROUPS: N,ACETYLGLYCYLGLYCINE, N,ACETYL,L (D) ALANYL,L,ALANINE AND N,ACETYL,L,VALYL,L,VALINE HAVE BEEN INVESTIGATED. THE GEOMETRICAL PARAMETERS OF FAVORABLE FORMS WITHOUT HYDROGEN BONDING HAVE BEEN CALCULATED USING THE MINIMIZATION PROCEDURE AND DEPICTED ON THE TWO DIMENSIONAL PHI (C PRIMEALPHA MINUS N) MINUS PSI (C PRIMEALPHA MINUS C PRIME) CONFORMATIONAL MAPS. THE VALUES OF THE PHI AND PSI ANGLES IN THE PREFERRED CONFORMATIONS OF CORRESPONDING COMPOUNDS WITH TWO AMINO GROUPS CAN BE USED AS THE ZERO APPROXIMATION IN THE SEARCH FOR THE POTENTIAL ENERGY MINIMUM OF THE OLIGOPEPTIDES. THE SIGNIFICANT SCATTERING IN THE PHI AND PSI VALUES FOUND FOR THE METHYLAMIDES OF N ACETYLOIPEPTIDES AS WELL AS THE DEVIATIONS FROM ADDITIVITY OF ENERGIES ARISING WITH INCREASE OF PEPTIDE CHAIN LENGTH CAN BE CONSIDERED AS THE EVIDENCE FOR MUTUAL DEPENDENCE OF CONFORMATIONAL STATE OF THE TWO AMINO ACID RESIDUES. THE MOST STABLE AMONG THE STRETCHED FORMS INVESTIGATED ARE THOSE THAT HAVE THE ANGLES OF ROTATION ABOUT THE C PRIMEALPHA MINUS N AND C PRIMEALPHA C PRIME BONDS CLOSE TO THOSE OCCURING IN THE RIGHT HANDED ALPHA HELIX AND IN THE BETA STRUCTURE. THE EFFECT OF DISTURBANCES OF THE STEREOREGULARITY OF THE ASYMMETRIC CENTERS IN THE PEPTIDE CHAIN ARE ALSO DISCUSSED. FACILITY: INSTITUTE FOR CHEMISTRY OF NATURAL PRODUCTS, ACADEMY OF SCIENCES, USSR, MOSCOW.

UNCLASSIFIED

UDC 576.858.75(A2). 098.31

USSR

TSVETKOVA, I. V. and LIPKIND, M. A., Institute of Biological and Medical Chemistry and Institute of Virology imeni D. I. Ivanovskiy, Academy of Medical Sciences USSR

"An Attempt to Obtain Direct Proof of the Enzymatic (Neuraminidase) Nature of the Process of "Unmasking" Latent Hemagglutinin in Influenza A2 Virus"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 70, pp 409-414

Abstract: An attempt was made to find direct evidence of a relationship between the "unmasking" of latent hemagglutinin and neuraminidase activity in influenza A2 virus. It was hypothesized that if the "unmasking" process, i.e., the breakdown of the virus-inhibitor complex, occurs under the influence of viral neuraminic acid should accumulate in the system where the hemagglutinin titer of the virus (Kop strain) increases spontaneously. In the case of the inhibitor-sensitive Bar strain, on the other hand, there should be no such accumulation. When the allantoic fluid of 13-day-old chick embryos was infected with the two influenza strains, however, the content of neuraminic acid increased by 70.7% and 43.5% in fluid inoculated with inhibitor-resistant Kop strain and inhibitor-sensitive Bar strain, respectively. During storage of the virus-containing allantoic fluids, accompanied

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USSR

TSVETKOVA, I. V., et al, Voprosy Virusologii, No 4, Jul/Aug 70, pp 409-414

by a spontaneous increase in the hemagglutinin titer of the inhibitor-resistant strain, no statistically significant accumulation of neuraminic acid was exhibited. Thus, no direct evidence of the neuraminidase nature of the "unmasking" process could be obtained.

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USSR

UDC 577.11

TSVETKOVA, I. V., GRIBKOVA, N. V., and LIPKIND, M. A., Institute of Biological and Medical Chemistry, USSR Academy of Medical Sciences, Moscow, D. I. Ivanovskiy Institute of Virology, USSR Academy of Medical Sciences, Moscow, and Moscow Academy of Veterinary Medicine

"Effect of Detergents on the Activity of Functional Viral Proteins and on Their Distribution in Organelles of Virus-Infected Cells"

Moscow, Biokhimiya, No 4, 1973,pp 771-778

Abstract: The activity of neuraminidase and hemagglutinin in chick embryo fibroblasts infected with Newcastle disease virus was studied in cell homogenates treated with Tween 80, Triton X-100, and other detergents (sodium dodecylsulfate, sodium desoxycholeate, digitonin). Tween 80 and Triton X-100 increased the activity of the proteins and redistributed it among the cell organelles. Their activity shifted to the lighter fractions, particularly the "cell juice" where both neuraminidase and hemagglutin were practically absent when the homogenate not treated with a detergent was absent. Treatment with Triton X-100 caused a greater increase in the activity of the homogenate

USSR

TSVETKOVA, I. V., et al., Biokhimiya, No 4, 1973, pp 771-778

and a more pronounced shift of the proteins to the cell juice. Treatment with Tween 80 did not increase the activity of the homogenate as much and "shifted" it mainly to the mitochondrial-microsomal and ribosomal fractions.

1/2 014 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--COMPARATIVE STUDY OF THE EFFECTIVENESS OF PURIFICATION OF NEWCASTLE DISEASE VIRUS BY CHROMATOGRAPHY ON DEAE CELLULOSE AND
AUTHOR-(03)-VARICH, N.L., LIPKIND, M.A., KAVERIN, N.V.

COUNTRY OF INFO--USSR

SOURCE--VOPROSY VIRUSOLOGII, 1970, NR 1, PP 27-31

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--NEWCASTLE DISEASE VIRUS, CHROMATOGRAPHY, CELLULOSE, HEMAGGLUNINATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1987/0070 STEP NO--UR/0402/70/000/001/0027/0031

CIRC ACCESSION NO--AP0103750
UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--18SEP70

2/2 014

CIRC ACCESSION NO--AP0103750

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TWO METHODS OF PURIFICATION OF NEWCASTLE DISEASE VIRUS: CHROMATOGRAPHY ON DEAE CELLULOSE AND ULTRACENTRIFUGATION IN POTASSIUM TARTRATE SOLUTIONS WERE COMPARED. BOTH METHODS PRODUCE A HIGHLY PURIFIED PREPARATION, WHICH IS INDICATED BOTH BY CLOSE CORRELATION OF A NUMBER OF PARAMETERS IN PREPARATIONS PURIFIED BY BOTH METHODS AND BY RESULTS OF CENTRIFUGATION OF CHROMATOGRAPHICALLY PURIFIED VIRUS IN SUCROSE DENSITY GRADIENT. TOTAL LOSSES OF THE VIRUS IN PURIFICATION CONSTITUTE 61-65PERCENT USING POTASSIUM TARTRATE SOLUTIONS AND 80PERCENT IN CHROMATOGRAPHIC PURIFICATION. INACTIVATION OF THE VIRUS DETERMINED BY RATIO OF INFECTIOUS AND HEMAGGLUTINATING PROPERTIES IS INSIGNIFICANT IN BOTH METHODS OF PURIFICATION.

UNCLASSIFIED

UDC 621.314.58(088.8)

USSR

VOLKOV, I.V., LIFKOVSKIY, K.A., MEL'NICHUK, L.P., GRECHKO, E.N. [In-t elektrodinam. AN USSR--Institute Of Electrodynamics, AS, UkrSSR]

"Frequency Converter"

USSR Author's Certificate No 265256, filed 27 May 68, published 22 June 70 (from RZh--Elektronika i yeye primeneniye, No 3, March 1971, Abstract No 3B578P)

Translation: A frequency converter with a d-c section includes a single-rectifier [ventil'] series inverter at the output. With the object of improving the energy characteristics and increasing the security between the rectifier [vypryamitel'] and the source of a-c current, a converter of a source of voltage into a source of current (e.g., an inductive-capacitance converter) is included. 2 ill. A.S.

1/1

USSR UDC: 539.3:534.1

KOTS, V. M., LIPOVSKIY, D. Ye., NAZAROV, V. A., TODCHUK, V. A. SHUN, V. M.

"Experimental Studies of Stability of Ribbed Cylindrical Shells and Results of their Statistical Processing"

4-Ya Vses. Konf. Probl. Ustoychivosti v Stroit. Mekh., Tezisy Dokl. [Fourth All-Union Conference on Problems of Stability and Structural Mechanics, Abstracts of Reports -- Collection of Works], Moscow, 1972, pp 132-133 (Translated from Referativnyy Zhurnal Mekhanika, No 12, 1972, Abstract No 12V303, by B. B. Kabanov)

Translation: Results are presented from an experimental study of the stability of reinforced circular cylindrical shells in axial compression. The influence of initial form imperfections, unevenness of loading and geometry of supports is explained. It is suggested that the critical compressive force be determined by the formula

$$N_* = kN_t, \quad k = 0.1 + 0.9e^{-\lambda A}$$

where N_t is the theoretical value of critical force; A is a geometric parameter. Coefficient λ characterizes random perturbations and is determined by statistical processing of the results of experiments. Values of coefficient k

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USSR

Kots, V. M., Lipovskiy, D. Ye., Nazarov, V. A., Todchuk, V. A., Shun, V. M., 4-Ya Vses. Konf. Probl. Ustoychivosti v Stroit. Mekh., Tezisy Dokl., Moscow, 1972, pp 132-133.

produced in published experiments are presented. The significant influence of initial imperfections and unevenness of application of compressive loads on the stability of reinforced shells is noted.

2/2

UNCLASSIFIED PROCESSING DATE--30OCT70

1/2 010

TITLE--MODEL OF UNIFIED WEAK AND STRONG INTERACTIONS BASED ON BROKEN, V PLUS OR MINUS A, SYMMETRY -U-

AUTHOR--LIPMANOV, E.M.

COUNTRY OF INFO--USSR

SOURCE--YAD. FIZ. 1970, 11(3), 648-56

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--MATHEMATIC MODEL, STRONG NUCLEAR INTERACTION, WEAK NUCLEAR INTERACTION, PARTICLE SYMMETRY

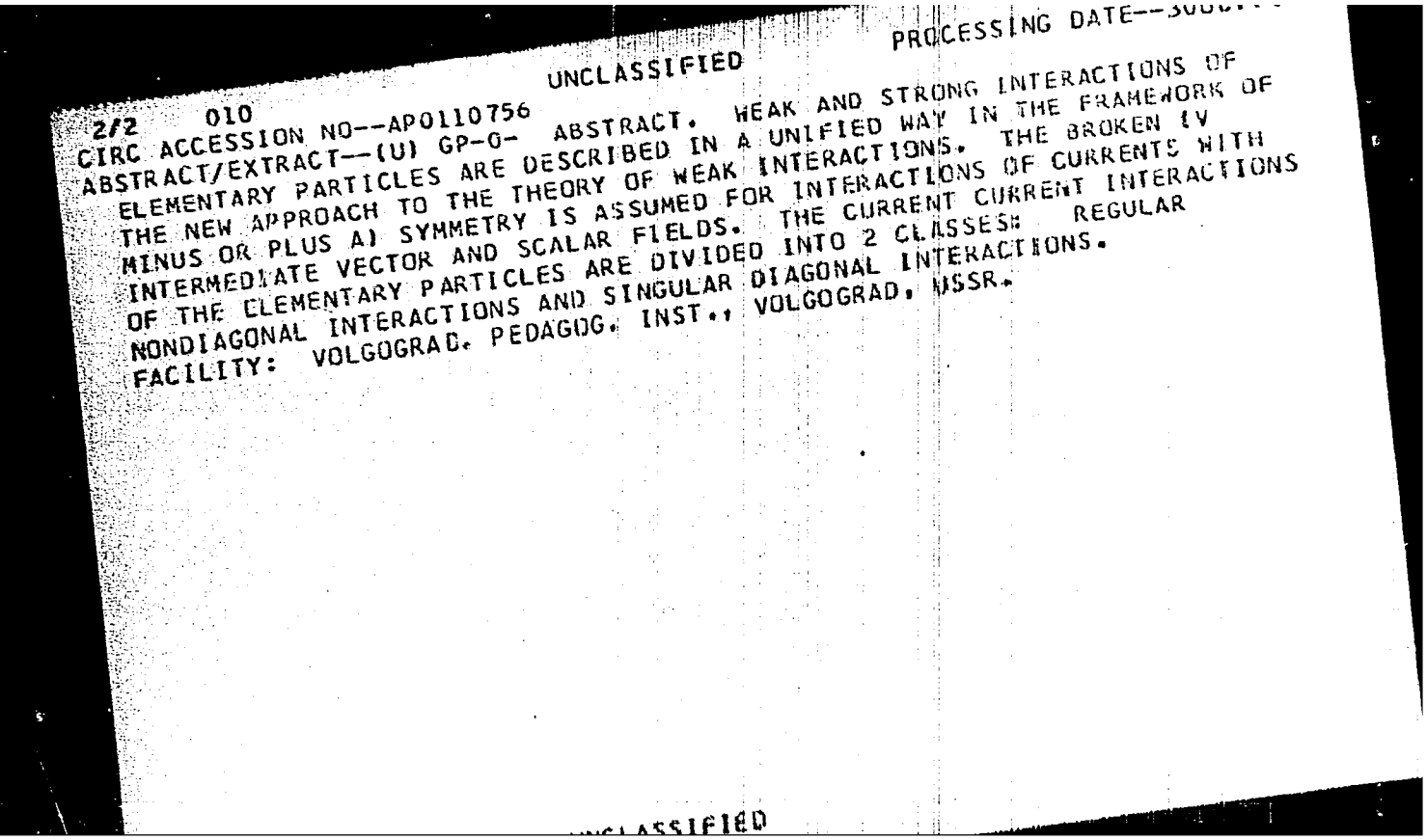
CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED STEP NO--UR/0367/70/011/003/0648/0656

PROXY REEL/FRAME--1991/1066

CIRC ACCESSION NO--AP0110756

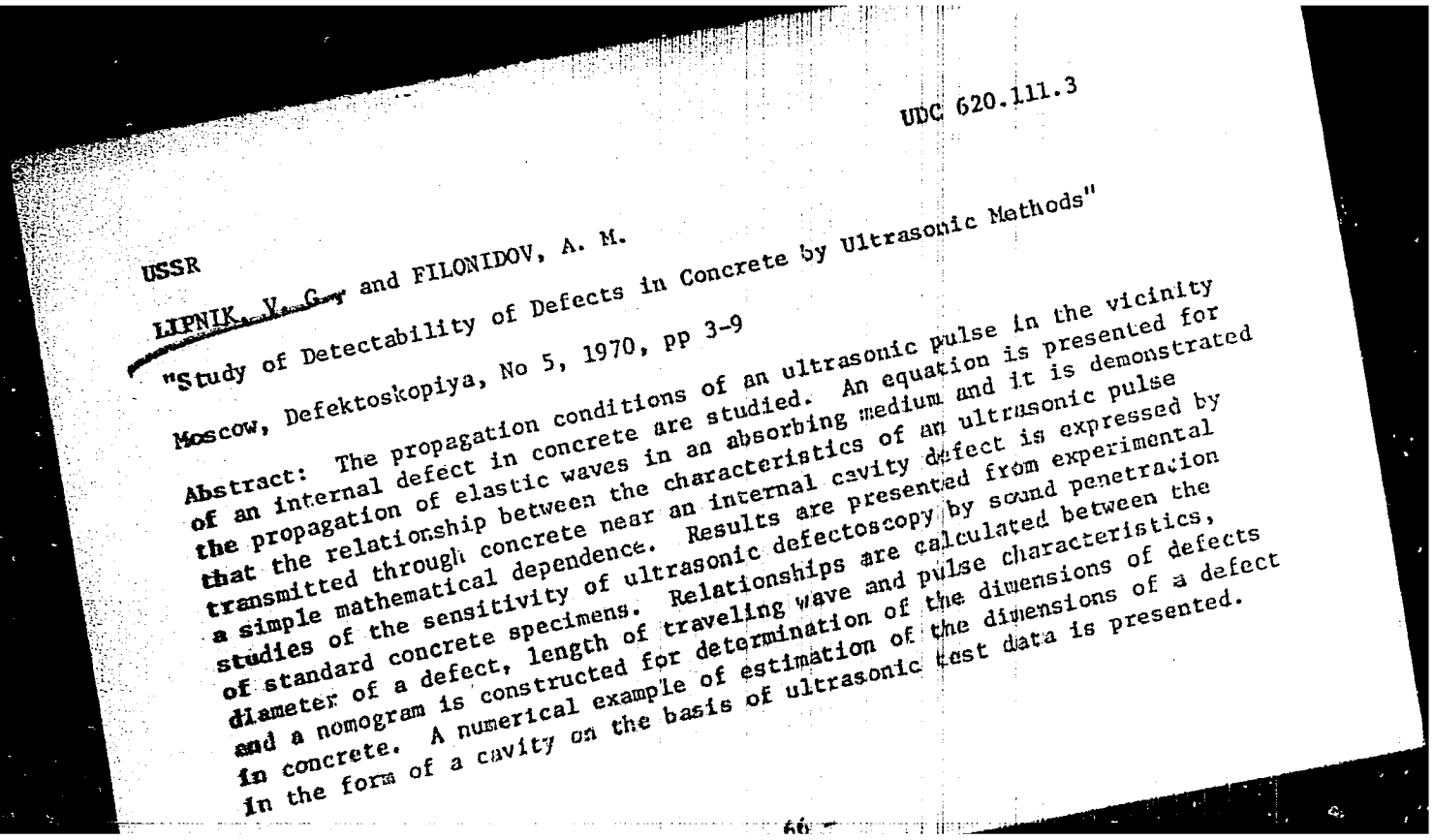
UNCLASSIFIED



UNCLASSIFIED PROCESSING DATE--

2/2 010
CIRC ACCESSION NO--AP0110756
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. WEAK AND STRONG INTERACTIONS OF ELEMENTARY PARTICLES ARE DESCRIBED IN A UNIFIED WAY IN THE FRAMEWORK OF THE NEW APPROACH TO THE THEORY OF WEAK INTERACTIONS. THE BROKEN (V MINUS OR PLUS A) SYMMETRY IS ASSUMED FOR INTERACTIONS OF CURRENTS WITH INTERMEDIATE VECTOR AND SCALAR FIELDS. THE CURRENT CURRENT INTERACTIONS OF THE ELEMENTARY PARTICLES ARE DIVIDED INTO 2 CLASSES: REGULAR NONDIAGONAL INTERACTIONS AND SINGULAR DIAGONAL INTERACTIONS.
FACILITY: VOLGOGRAD. PEDAGOG. INST., VOLGOGRAD, USSR.

UNCLASSIFIED



UDC 620.111.3

USSR

LIPNIK, V. G., and FILONIDOV, A. M.

"Study of Detectability of Defects in Concrete by Ultrasonic Methods"

Moscow, Defektoskopiya, No 5, 1970, pp 3-9

Abstract: The propagation conditions of an ultrasonic pulse in the vicinity of an internal defect in concrete are studied. An equation is presented for the propagation of elastic waves in an absorbing medium and it is demonstrated that the relationship between the characteristics of an ultrasonic pulse transmitted through concrete near an internal cavity defect is expressed by a simple mathematical dependence. Results are presented from experimental studies of the sensitivity of ultrasonic defectoscopy by sound penetration of standard concrete specimens. Relationships are calculated between the diameter of a defect, length of traveling wave and pulse characteristics, and a nomogram is constructed for determination of the dimensions of defects in concrete. A numerical example of estimation of the dimensions of a defect in the form of a cavity on the basis of ultrasonic test data is presented.

66

Foundry

USSR

UDC 621.745

LIPNITSKIY, A. M., Plavka Chuguna i Splavov Tsvetnykh Metallov (Smelting of Pig Iron and Alloys of Nonferrous Metals), Izd-vo "Mashinostroyeniye," Leningrad, 1973, 192 pp

Translation of Foreword: The directives of the 24th Congress of the Communist Party of the Soviet Union for the 5-Year Plan for the development of the national economy for theyears 1971-1975 provide for a considerable increase of production by all industrial branches, among them machine building. In solving these problems, much depends on foundry production, which is the principal base for modern machine building. The area for the application of castings is continuously expanding and with the general growth of machine building, there is a continuous replacement of parts from rolled iron, forgings, and stampings by parts made from castings. Together with the completion of tasks for the systematic increase of the output of castings, it is necessary to master and introduce into production new cast alloys of ferrous and nonferrous metals with high mechanical and service characteristics, [illegible] of all industrial branches for light intermediate products made with a minimum expenditure of metal. The smelting process of cast alloys is one of the most important processes in foundry production. The quality of future parts depends greatly on the physico-mechanical and chemical properties of the alloy of which the casting was made. Of notable importance

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USSR

LIPNITSKIY, A. M., , "Mashinostroyeniye," Leningrad, 1973, 192 pp

is the efficient selection of the furnace charge composition, where in addition to providing for the required properties of the casting, it is necessary to apply the most inexpensive charge composition making full use of eigenreturn, secondary alloys, etc. The proper selection of the smelting plant not only affects the stability of the chmical composition but also, to a certain extent, affects the saving of metal and the net cost of the alloy. Successful solution of the problems imposed on Soviet foundrymen can only be achieved through a significant increase of technical and production levels of the workers, as well of the foremen and technologists. The book deals with the predominant properties of cast alloys used in machine building and also with the operation of foundry furnaces used in the smelting of these alloys. In addition to fundamental problems, such as the technology of smelting cast iron and copper, aluminum, and magnesium alloys, the book gives a brief account of the construction of foundry furnaces, the organization of labor, the labor protection, and safety techniques in melting departments.

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USSR

LIPNITSKIY, A. M., "Mashinostroyeniye," Leningrad, 1973, 192 pp

TRANSLATION OF TABLE OF CONTENTS:

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LIPNITSKIY, A. M., "Mashinostroyeniye," Leningrad, 1973, 192 pp

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LIPNITSKIY, A. M., "Mashoinostroyeniye," Leningrad, 1973, 192 pp

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LIPNITSKIY, A. M., "Mashinostroyeniye," Leningrad, 1973, 192 pp

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UDC 615.38.014.4

USSR

LIPNITSKIY, I. F.

"New Methods for Storage and Transportation of Preserved Blood at Low and High Temperatures, and for Protection of Blood from Radioactive Emission"

Moscow, Problemy Gematologii i Perelivaniya Krovi, No 3, 1970, pp 55-56

Abstract: A description is given of a chamber and ampules which were developed for the storage and transportation of preserved blood under any atmospheric conditions, and for its protection against radioactive emission. The basic principle involved is the same as in the Dewar flask. The chamber is made in the form of two cylindrical reservoirs. The smaller one fits inside the larger one, thus forming a space between the walls with a vacuum in the chamber and lid. The upper end of both reservoirs is attached to the flange by gas welding to create a reliable hermetic seal in the interwall gap, from which the air is drawn out with a vacuum pump. The inner surfaces of both reservoirs are enamel-coated. The chamber is tightly closed with a lid, which is securely fastened to the chamber frame with three thumbscrews. To protect the blood from penetrating radiation, the inner surfaces of the outer reservoir and chamber lid are sheathed with lead or with graphite. In addition, to ensure hermetic sealing and protection from penetrating radiation, the inside of the chamber along the entire flange perimeter is reinforced with

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LIPNITSKIY, I. F., Problemy Gematologii i Perelivaniya Krovi, No 3, 1970, pp 55-56

lead-rubber packing. Air temperature inside the chamber is measured with a thermometer, which is observed through the closed lid via a glass peephole mounted on the inner side of the lid. The ampules are made of glass using the same principle and technology (with an interwall gap) as in Dewar flasks. The stoppers and caps of the ampules are made of polymers. The ampules of preserved blood are inserted in a vertical position in two racks of several rows, depending on the size of the chamber, and are arranged in a checkered fashion. Both racks are attached to the wall of the inner reservoir on four metal shock absorbers in the form of spiral springs, which help prevent breakage due to jolts during transporting.

UDC 539.3

USSR

LIPNITSKIY, M. Ye.

"Calculating the Symmetrical Load of a Vertical Cylindrical Reservoir"

Stroit. mekh. i rachet sooruzh. (Structural Mechanics in the Calculation of Structures), 1972, No. 6, pp 50-54 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V133)

Translation: An approximate method is given for determining the forces in a cylindrical reservoir when the ratio of the height of the reservoir to its diameter is no more than 1.5 under asymmetric loading of the reservoir by dry material is presented. Author's abstract.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002201810016-0"

1/2 014 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--COMPARATIVE STUDY OF THE EFFECTIVENESS OF PURIFICATION OF NEWCASTLE DISEASE VIRUS BY CHROMATOGRAPHY ON DEAE CELLULOSE AND

AUTHOR-(03)-VARICH, N.L., LIPKIND, M.A., KAVERIN, N.V.

COUNTRY OF INFO--USSR

SOURCE--VOPROSY VIRUSOLOGII, 1970, NR 1, PP 27-31

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--NEWCASTLE DISEASE VIRUS, CHROMATOGRAPHY, CELLULOSE, HEMAGGLUNINATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0070 STEP NO--UR/0402/70/000/001/0027/0031

[redacted] UNCLASSIFIED

USSR

TSVETKOVA, I. V., et al., Biokhimiya, No 4, 1973, pp 771-779

and a more pronounced shift of the proteins to the cell juice. Treatment with Tween 80 did not increase the activity of the homogenate as much as "shifted" it mainly to the mitochondrial-microsomal and ribosomal fractions.

2/2 014 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0103750

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TWO METHODS OF PURIFICATION OF NEWCASTLE DISEASE VIRUS: CHROMATOGRAPHY ON DEAE CELLULOSE AND ULTRACENTRIFUGATION IN POTASSIUM TARTRATE SOLUTIONS WERE COMPARED. BOTH METHODS PRODUCE A HIGHLY PURIFIED PREPARATION, WHICH IS INDICATED BOTH BY CLOSE CORRELATION OF A NUMBER OF PARAMETERS IN PREPARATIONS PURIFIED BY BOTH METHODS AND BY RESULTS OF CENTRIFUGATION OF CHROMATOGRAPHICALLY PURIFIED VIRUS IN SUCROSE DENSITY GRADIENT. TOTAL LOSSES OF THE VIRUS IN PURIFICATION CONSTITUTE 61-65PERCENT USING POTASSIUM TARTRATE SOLUTIONS AND 80PERCENT IN CHROMATOGRAPHIC PURIFICATION. INACTIVATION OF THE VIRUS DETERMINED BY RATIO OF INFECTIOUS AND HEMAGGLUTINATING PROPERTIES IS INSIGNIFICANT IN BOTH METHODS OF PURIFICATION.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R002201810016-0"

USSR

UDC: 539.3:534.1

KOTS, V. M., LIPOVSKIY, D. Ye., NAZAROV, V. A., TODCHUK, V. A. SHUN, V. M.

"Experimental Studies of Stability of Ribbed Cylindrical Shells and Results of their Statistical Processing"

4-Ya Vses. Konf. Probl. Ustoychivosti v Stroit. Mekh., Tezisy Dokl. [Fourth All-Union Conference on Problems of Stability and Structural Mechanics, Abstracts of Reports -- Collection of Works], Moscow, 1972, pp 132-133 (Translated from Referativnyy Zhurnal Mekhanika, No 12, 1972, Abstract No 12V303, by B. B. Kabanov)

Translation: Results are presented from an experimental study of the stability of reinforced circular cylindrical shells in axial compression. The influence of initial form imperfections, unevenness of loading and geometry of supports is explained. It is suggested that the critical compressive force be determined by the formula

$$N_* = kN_t, \quad k = 0.1 + 0.9e^{-\lambda A}$$

where N_t is the theoretical value of critical force; A is a geometric parameter. Coefficient λ characterizes random perturbations and is determined by statistical processing of the results of experiments. Values of coefficient k

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Kots, V. M., Lipovskiy, D. Ye., Nazarov, V. A., Todchuk, V. A., Shun, V. M., 4-Ya Vses. Konf. Probl. Ustoychivosti v Stroit. Mekh., Tezisy Dokl., Moscow, 1972, pp 132-133.

produced in published experiments are presented. The significant influence of initial imperfections and unevenness of application of compressive loads on the stability of reinforced shells is noted.

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USSR UDC 621.314.58(088.8)

VOLKOV, I.V., LIPKOVSKIY, K.A., MEL'NICHUK, L.P., GRECHKO, E.N. [In-t elektrodinam. AN USSR--Institute Of Electrodynamics, AS, UkrSSR]

"Frequency Converter"

USSR Author's Certificate No 265256, filed 27 May 68, published 22 June 70 (from RZh--Elektronika i yeye primeneniye , No 3, March 1971, Abstract No 3B578P)

Translation: A frequency converter with a d-c section includes a single-rectifier [ventil'] series inverter at the output. With the object of improving the energy characteristics and increasing the security between the rectifier [vypryamitel'] and the source of a-c current, a converter of a source of voltage into a source of current (e.g., an inductive-capacitance converter) is included. 2 ill. A.S.

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1/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--MODEL OF UNIFIED WEAK AND STRONG INTERACTIONS BASED ON BROKEN, V PLUS OR MINUS A, SYMMETRY -U-
AUTHOR--LIPMANOV, E.M.

COUNTRY OF INFO--USSR

SOURCE--YAD. FIZ. 1970, 11(3), 648-56

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--MATHEMATIC MODEL, STRONG NUCLEAR INTERACTION, WEAK NUCLEAR INTERACTION, PARTICLE SYMMETRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1991/1066 STEP NO--UR/0367/70/011/003/0648/0656

CIRC ACCESSION NO--AP0110756
UNCLASSIFIED

2/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AP0110756
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. WEAK AND STRONG INTERACTIONS OF ELEMENTARY PARTICLES ARE DESCRIBED IN A UNIFIED WAY IN THE FRAMEWORK OF THE NEW APPROACH TO THE THEORY OF WEAK INTERACTIONS. THE BROKEN (V MINUS OR PLUS A) SYMMETRY IS ASSUMED FOR INTERACTIONS OF CURRENTS WITH INTERMEDIATE VECTOR AND SCALAR FIELDS. THE CURRENT CURRENT INTERACTIONS OF THE ELEMENTARY PARTICLES ARE DIVIDED INTO 2 CLASSES: REGULAR NONDIAGONAL INTERACTIONS AND SINGULAR DIAGONAL INTERACTIONS.
FACILITY: VOLGOGRAD. PEDAGOG. INST., VOLGOGRAD, USSR.

UNCLASSIFIED

USSR UDC 620.111.3

LIPNIK, V. G., and FILONIDOV, A. M.

"Study of Detectability of Defects in Concrete by Ultrasonic Methods"

Moscow, Defektoskopiya, No 5, 1970, pp 3-9

Abstract: The propagation conditions of an ultrasonic pulse in the vicinity of an internal defect in concrete are studied. An equation is presented for the propagation of elastic waves in an absorbing medium and it is demonstrated that the relationship between the characteristics of an ultrasonic pulse transmitted through concrete near an internal cavity defect is expressed by a simple mathematical dependence. Results are presented from experimental studies of the sensitivity of ultrasonic defectoscopy by sound penetration of standard concrete specimens. Relationships are calculated between the diameter of a defect, length of traveling wave and pulse characteristics, and a nomogram is constructed for determination of the dimensions of defects in concrete. A numerical example of estimation of the dimensions of a defect in the form of a cavity on the basis of ultrasonic test data is presented.

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Foundry

USSR UDC 621.745

LIPNITSKIY, A. M., Plavka Chuguna i Splavov Tsvetnykh Metallov (Smelting of Pig Iron and Alloys of Nonferrous Metals), Izd-vo "Mashinostroyeniye," Leningrad, 1973, 192 pp

Translation of Foreword: The directives of the 24th Congress of the Communist Party of the Soviet Union for the 5-Year Plan for the development of the national economy for theyears 1971-1975 provide for a considerable increase of production by all industrial branches, among them machine building. In solving these problems, much depends on foundry production, which is the principal base for modern machine building. The area for the application of castings is continuously expanding and with the general growth of machine building, there is a continuous replacement of parts from rolled iron, forgings, and stampings by parts made from castings. Together with the completion of tasks for the systematic increase of the output of castings, it is necessary to master and introduce into production new cast alloys of ferrous and non-ferrous metals with high mechanical and service characteristics; this will make it possible to meet with demands of all industrial branches for light intermediate products made with a minimum expenditure of metal. The smelting process of cast alloys is one of the most important processes in foundry production. The quality of future parts depends greatly on the physico-mechanical and chemical properties of the alloy of which the casting was made. Of notable importance

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USSR

LIPNITSKIY, A. M., , "Mashinostroyeniye," Leningrad, 1973, 192 pp

is the efficient selection of the furnace charge composition, where in addition to providing for the required properties of the casting, it is necessary to apply the most inexpensive charge composition making full use of eigenreturn, secondary alloys, etc. The proper selection of the smelting plant not only affects the stability of the chemical composition but also, to a certain extent, affects the saving of metal and the net cost of the alloy. Successful solution of the problems imposed on Soviet foundrymen can only be achieved through a significant increase of technical and production levels of the workers, as well of the foremen and technologists. The book deals with the predominant properties of cast alloys used in machine building and also with the operation of foundry furnaces used in the smelting of these alloys. In addition to fundamental problems, such as the technology of smelting cast iron and copper, aluminum, and magnesium alloys, the book gives a brief account of the construction of foundry furnaces, the organization of labor, the labor protection, and safety techniques in melting departments.

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USSR

LIPNITSKIY, A. M., "Mashinostroyeniye," Leningrad, 1973, 192 pp

TRANSLATION OF TABLE OF CONTENTS:

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LIPNITSKIY, A. M., "Mashinostroyeniye," Leningrad, 1973, 192 pp

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LIPNITSKIY, A. M., "Mashoinostroyeniye," Leningrad, 1973, 192 pp

USSR

LIPNITSKIY, A. M., "Mashinostroyeniye," Leningrad, 1973, 192 pp

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UDC 615.38.014.4

USSR

LIPNITSKIY, I. F.

"New Methods for Storage and Transportation of Preserved Blood at Low and High Temperatures, and for Protection of Blood from Radioactive Emission"

Moscow, Problemy Gematologii i Perelivaniya Krovi, No 3, 1970, pp 55-56

Abstract: A description is given of a chamber and ampules which were developed for the storage and transportation of preserved blood under any atmospheric conditions, and for its protection against radioactive emission. The basic principle involved is the same as in the Dewar flask. The chamber is made in the form of two cylindrical reservoirs. The smaller one fits inside the larger one, thus forming a space between the walls with a vacuum in the chamber and lid. The upper end of both reservoirs is attached to the flange by gas welding to create a reliable hermetic seal in the interwall gap, from which the air is drawn out with a vacuum pump. The inner surfaces of both reservoirs are enamel-coated. The chamber is tightly closed with a lid, which is securely fastened to the chamber frame with three thumbscrews. To protect the blood from penetrating radiation, the inner surfaces of the outer reservoir and chamber lid are sheathed with lead or with graphite. In addition, to ensure hermetic sealing and protection from penetrating radiation, the inside of the chamber along the entire flange perimeter is reinforced with

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LIPNITSKIY, I. F., Problemy Gematologii i Perelivaniya Krovi, No 3, 1970, pp 55-56

lead-rubber packing. Air temperature inside the chamber is measured with a thermometer, which is observed through the closed lid via a glass peephole mounted on the inner side of the lid. The ampules are made of glass using the same principle and technology (with an interwall gap) as in Dewar flasks. The stoppers and caps of the ampules are made of polymers. The ampules of preserved blood are inserted in a vertical position in two racks of several rows, depending on the size of the chamber, and are arranged in a checkered fashion. Both racks are attached to the wall of the inner reservoir on four metal shock absorbers in the form of spiral springs, which help prevent breakage due to jolts during transporting.

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UDC 539.3

LIPNITSKIY, M. Ye.

"Calculating the Symmetrical Load of a Vertical Cylindrical Reservoir"

Stroit. mekh. i rachet sooruzh. (Structural Mechanics in the Calculation of Structures), 1972, No. 6, pp 50-54 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V133)

Translation: An approximate method is given for determining the forces in a cylindrical reservoir when the ratio of the height of the reservoir to its diameter is no more than 1.5 under asymmetric loading of the reservoir by dry material is presented. Author's abstract.

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Acc. Nr.: AP0046763 L Ref. Code: UR0125 9

USSR UDC 621.791.756:669.15-194

KAKHOVSKIY, N. I. FARTUSHNYY, V. G., DEM'YANENKO, G. P., ZAKHAROV, L. S., LIPODAYEV, V. N., KAKHOVSKIY, YU. N., BRUSENTSOVA, V. N., KOTOV, V. V.

"Welding of Chrome-nickel-molybdenum Single-Phase Austenitic Steel"

Kiev, Avtomaticheskaya Svarka (Automatic Welding), No 1, 1970, pp 39-43 (from Avtomaticheskaya Svarka, No 1, 1970, p 80)

Translation: This article contains a study of the effect of manganese and nitrogen on crack resistance of purely austenitic welds. Chrome-nickel-manganese-molybdenum wire with nitrogen EP690 and ANV-17 electrodes for welding OKh17N16M2T, OOKh17N16M3B and OOOKh16N15M3 steels have been developed. These developments insure uniform strength, uniform corrosion resistance of the joints made of these steels and sufficiently high plasticity and viscosity of the weld metal. There are 4 tables, 1 illustration and a bibliography with 15 entries..

1/1 Reel/Frame 19790067 di 18

USSR UDC 539.4.104

ARTROSHCHENKO, E. S., KOSOVICH, V. A., LIPOVATYY, B. N., SHEVKH, V. S., and SHOROSHOROV, M. KH., Volograd, Moscow

"Features of Plastic Deformation During Explosive Compression of Metal Powders"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 4, Jul/Aug 72, pp 113-118

Abstract: Plastic deformation, temperature, and some features of the fine structure were studied in relation to the density and compression parameters, using 100-250 μ iron and titanium powders. It was determined that high-velocity loading leads to a significant heating of the compressed powder due to the adiabatic character of heat exchange between the deformed particles and the surrounding environment.

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USSR

UDC: 518.5:681.3.06

LIPOVETSKAYA, L. L., IKAUNIYEK, E. A., , IKAUNIYEK, B. A.

"Computer Modeling of the Operation of a First Aid Station"

Tr. VNII med. priborostr. (Works of the All-Union Scientific Research Institute of Medical Instrument Making), 1971, vyp. 1, pp 33-36 (from RZh-Kibernetika, No 12, Dec 71, Abstract No 12V991)

Translation: A mathematical description is given of the operation of a medical first aid station, and a program is derived for statistical modeling of the work of the station on a computer. Optimum conditions for first aid station management are selected on the basis of statistical data for the Riga station. Authors' abstract.

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1/2 039 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--APPROXIMATE SOLUTION OF THE INTERNAL PROBLEM FOR A TURBULENT BOUNDARY LAYER -U-

AUTHOR-(02)-DORFMAN, A.SH., LIPOVETSKAYA, O.D.

COUNTRY OF INFO--USSR

SOURCE--INZHENERNO FIZICHESKII ZHURNAL, VOL. 18, FEB. 1970, P. 224-232

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--APPROXIMATE SOLUTION, TURBULENT BOUNDARY LAYER, BOUNDARY LAYER EQUATION, FLOW SEPARATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/0405 STEP NO--UR/0170/70/018/000/0224/0232

CIRC ACCESSION NO--AP0111598

UNCLASSIFIED

2/2 039 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0111598

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DISCUSSION OF THE PROBLEM OF THE DEVELOPMENT OF A TURBULENT BOUNDARY LAYER IN AN AXISYMMETRIC CHANNEL WITH ALLOWANCE FOR THE INTERACTION BETWEEN THE BOUNDARY LAYER AND THE FLOW CORE. THE PROBLEM IS SOLVED BY REDUCING THE SYSTEM OF FLOW EQUATIONS TO A SINGLE INTEGRODIFFERENTIAL EQUATION, FOLLOWING A PROCEDURE USED BY DORFMAN (1966) IN THE CASE OF LAMINAR FLOW. THE BOUNDARY LAYER CHARACTERISTICS ARE CALCULATED BY TRUCKENBRODT'S (1952) METHOD BASED ON THE SIMULTANEOUS SOLUTION OF INTEGRAL MOMENTUM AND ENERGY RELATIONS. EXPRESSIONS FOR THE COORDINATES OF THE SEPARATION POINT AND OTHER FLOW CHARACTERISTICS ARE DERIVED AS A FUNCTION OF THE REYNOLDS NUMBER AND THE GEOMETRICAL PARAMETERS OF THE CHANNEL. A SIMPLE APPROXIMATE METHOD OF CALCULATING BOUNDARY LAYERS IN CURVILINEAR CHANNELS IS PROPOSED. FACILITY: AKADEMIIA NAUK UKRAINSKOI SSR, INSTITUT TEKHNICHESKOI TEPLOFIZIKI, KIEV, UKRAINIAN SSR.

UNCLASSIFIED

1/2 026 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--MEASUREMENT OF THE LOW ENERGY PROTON INTENSITY IN THE UPPER ATMOSPHERE -U-

AUTHOR-(02)-TULINOV, V.F., LIPOVETSKIY, V.A.

COUNTRY OF INFO--USSR

SOURCE--KOSMICHESKI ISSLEDOVANIIA, VOL. 8, MAR-APR. 1970, P. 306-307

DATE PUBLISHED-------70

SUBJECT AREAS--ATMOSPHERIC SCIENCES, MISSILE TECHNOLOGY

TOPIC TAGS--UPPER ATMOSPHERE, MEASUREMENT, PROTON, METEOROLOGIC ROCKET, ALBEDO

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1763 STEP NO--UR/0293/70/008/000/0306/0307

CIRC ACCESSION NO--AP0115592

UNCLASSIFIED

2/2 026 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0115592

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EVALUATION OF EXPERIMENTAL DATA OBTAINED WITH THE AID OF A METEOROLOGICAL ROCKET CONCERNING THE PROTON INTENSITY IN THE ENERGY RANGE FROM 1 TO 20 MEV AT MID LATITUDES AT ALTITUDES RANGING FROM ABOUT 35 TO 87 KM. NO INCREASE IN THE NUMBER OF SLOW PROTONS IS OBSERVED AT ALTITUDES GREATER THAN 70 KM. THUS INDICATING THE ABSENCE OF A PROTON COMPONENT IN THE SOFT CORPUSCULAR RADIATION USUALLY RECORDABLE WITH THE AID OF END WINDOW GEIGER COUNTERS. CONSEQUENTLY, PROTONS AT ALTITUDES GREATER THAN 35 TO 40 KM ARE COSMIC RAY ALBEDO PROTONS. MOREOVER, THE UPWARD AND DOWNWARD MOVING ALBEDO PARTICLES FLUXES ARE EQUAL TO EACH OTHER WITHIN AN ERROR RANGE OF ABOUT 20PERCENT.

UNCLASSIFIED

USSR

UDC 576.858+578.083

NOVIKOVA, N. V., SHTIKKEL', E. I., and LIPOVICH, I. V., Institute of Biochemistry and Physiology, Academy of Sciences Kirgiz SSR

"The Effect of Dibazol on Interferon Formation by Cells of Fetal Sheep Skin After Infection of These Cells With the Virus of Contagious Ecthyma -- (Sheep Pox)"

Frunze, Izvestiya Akademii Nauk Kirgizskoy SSR, No 1, Jan/Feb 72, p 52

Abstract: It has been established in earlier work (Novikova, Veterinariya, No 10, 48-9, 1971) that the presence of dibazol increases the resistance of cells of fetal sheep skin to the virus of contagious ecthyma (sheep pox). A culture of fetal sheep skin was infected with the virus of contagious ecthyma in the presence and absence of dibazol. After the virus had been destroyed by the action of HCl for four days at 4°C, followed by addition of NaOH to pH 7.2-7.4, the interferon was titrated in a culture of fetal sheep kidney cells infected with the virus of contagious ecthyma. The culture medium from the skin cells infected in the absence of dibazol inhibited the cytopathic effect of the virus in a dilution of 1:2, while the medium from the skin cells infected in the presence of dibazol had this effect in a dilution of 1:8. This indicated that dibazol stimulated interferon formation by skin

USSR

NOVIKOVA, N. V., et al., Izvestiya Akademii Nauk Kirgizskoy SSR, No 1, Jan/Feb 72, p 52

cells upon infection of the cells with the virus, because media from non-infected control cultures that contained or did not contain dibazol did not inhibit the cytopathic effect of the virus under similar conditions.

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1/2 021 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--POLYMERIZATION AND CYCLOTRIMERIZATION OF ACETYLENE IN THE PRESENCE OF COMPLEX ORGANOMETALLIC CATALYSTS -U-
AUTHOR--SHMIDT, F.K., LIPOVICH, V.G., KALECHITES, I.V.

COUNTRY OF INFO--USSR

SOURCE--KINET. KATAL. 1970, 11(1) 251-3

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--POLYMERIZATION, CATALYST ACTIVITY, TRANSITION METAL, COMPLEX COMPOUND, ACETYLENE, ORGANIC PHOSPHOROUS COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1989/0204 STEP NO--UR/0195/70/011/001/0251/0253

CIRC ACCESSION NO--AP0106860
UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--11SEP70

2/2 021

CIRC ACCESSION NO--AP0106860

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CATALYTIC ACTIVITY OF TRANSITION METAL ACETYLACETONA TO COMPLEXES WITH ET SUB3 AL IN POLYMN. OF C SUB2 H SUB2 DECREASED IN THE CATION ORDER: FE LARGER THAN NI LARGER THAN V LARGER THAN CR. IN THE PRESENCE OF NI(II) COMPLEX, C SUB2 H SUB2 GAVE C SUB6 H SUB6 AND A POLYMER. ACTIVITY AND SELECTIVITY OF THE CATALYSTS DEPENDED ON AL-METAL,COMPLEX RATIO. WHEN THE REACTION WAS PERFORMED IN THE PRESENCE OF AN ORGANOPHOSPHORUS COMPD. (ALONG WITH THE CATALYST SYSTEM) THE ACTIVITY DECREASED IN THE ORDER: P(OET) SUB3 SIMILAR TO P(OPR-ISO).SUB3 LARGER THAN P(PH) SUB3 LARGER THAN P(OPH) SUB3. THESE COMPDS. PROMOTED CYCLOTRIMERIZATION OF C SUB2 H SUB2.

UNCLASSIFIED

1/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--PRODUCTION OF OILS BY HYDROCRACKING A VACUUM DISTILLATE OF ARLANSKII PETROLEUM -U-

AUTHOR-(05)-LIPOVSKAYA, K.S., GOLOSHTEYN, D.L., ROGOV, S.P., PEREZHIGINA, I.YA., AGAFONOV, A.V.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERERAB. NEFTEKHIM. (MOSCOW) 1970, (5), 45

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS, EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--LUBRICATING OIL, PETROLEUM HYDROCRACKING, PETROLEUM DEPOSIT, CHEMICAL COMPOSITION, PETROLEUM DEWAXING, VACUUM DISTILLATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/1961 STEP NO--UR/0318/70/000/005/0045/0045

CIRC ACCESSION NO--AP0133805

UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0133805

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE DISTILLATE, HIGH IN S AND BITUMINOUS ASPHALTIC COMPDS., WAS HYDROCRACKED IN 1 STEP AT 100 ATM, 425DEGREES, AND 1 L. STOCK-L. CATALYST-HR, YIELDING A HEAVY FRACTION B. LARGER THAN 350DEGREES, WITH S 0.06, N 0.03, AND COKE 0.1PERCENT, WHICH WAS VACUUM DISTD. TO OBTAIN FRACTIONS WHICH WERE DEWAXED AND HYDROFINED TO YIELD LOW VISCOSITY AND AUTOMOBILE OILS. THE LATTER HAD VISCOSITY INDEX 100 AND 0.03PERCENT S.

UNCLASSIFIED

USSR

UDC 621.396.6.002.521.793

KUMLEVA, L. A., NIKOLAYEVA, N. M., KOROLEV, A. L., MAKEYEVA, Ye. D., LEVCHENKO, D. N., ABAKUMOVA, G. S., LIPOVSKAYA, N. I.

"Lubricating Grease"

USSR Author's Certificate No 253981, Filed 27 Jul 68, Published 26 Feb 70 (from RZh-Radiotekhnika, No 10, Oct 70, Abstract No 10V295 P)

Translation: The authors propose a lubricating grease based on a dispersion medium thickened with silica gel, to which liquid polyoxyalkyleneglycol is added as the dispersion medium. In order to loosen and remove oxide films from metals, polyatomic phenol is added to the lubricant in quantities of 0.1-10%, silica gel is used in quantities of 5-15%, and liquid polyoxyalkyleneglycol -- 95-85%.

1/1

USSR

UDC 542.61:546.761'6:547.461.2

KUZINA, N. G., and LIPOVSKIY, A. A.

"Investigation of the Extraction of U^{VI} From the Oxalate Solutions Using Tetradecylammonium Oxalate"

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 18, No 7, Jul 73, pp 1902-1906

Abstract: Extraction of U^{VI} from oxalate solutions was studied in a wide range of pH of the aqueous solutions. It was shown that, depending on the concentration ratios of the extracting agent and uranium, the latter is extracted in form of various acido- and hydroxyacido complex compounds. When the extracting agent is used in excess, at low pH values, the extracted product has the structure $(R_4N)_2UO_2Ox_2$, while at high pH levels $(R_4N)_2UO_2Ox(OH)_2$ are extracted. With insufficient quantities of the extracting agent, various hydroxyacido complex compounds are extracted.

1/1

USSR

UDC 542.61:546.791'.6-547.333.4

LIPOVSKIY, A. A. and KUZINA, M. G.

"Investigation of the Extraction of Uranium (VI) From Acetate Solutions With Tetradecylammonium Acetate"

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 17, No 4, 1972, pp 1127-1131

Abstract: The study of the extraction of uranium (U^{VI}) from acetate solutions over a wide range of pH and the determination of the composition of the extracted compounds was carried out. Tetradecylammonium acetate [R_4NAc] was prepared by neutralizing a solution of tetradecylammonium hydroxide in methyl alcohol by calculating the amount of acetic acid with subsequent distilling off of the solvent and drying the sample in a dessicator. The extraction of U^{VI} was carried out by dissolving the R_4NAc in benzene. Uranium was determined either by gravimetric methods as U_3O_8 or colorimetrically with H_2O_2. The acetate ion in the organic phase was determined by reextracting it with a solution of H_2SO_4 and extracting the acetic acid formed with diethyl ether. The extracted acid could then be titrated with standard NaOH and phenolphthalein indicator. Absorption spectra were also determined on the extracts.

USSR

LIPOVSKIY, A. A., et al, Zhurnal Neorganicheskoy Khimii, Vol 17, No 4, 1972, pp 1127-1131

Depending on the pH and the initial concentrations of UO_2Ac_2 and R_4NAc in the organic phase, different complexes of uranium were found. Below a pH 5 $R_4NUO_2Ac_3$ and $(R_4N)_2UO_2Ac_4$ were found. Above pH 5, $R_4NUO_2Ac_2(OH)_2$ were found. If insufficient quantities of R_4NAc were used, complexes of the type $R_4N(UO_2)_2Ac_3(OH)_2$ and $(R_4N)_2(UO_2)_3Ac_6(OH)_2$ were found.

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USSR

UDC 542.61:546.791.6

VDOVENKO, V. M., KUZINA, M. G., and LIPOVSKIY, A. A.

"Study of the Extraction of $U^{(VI)}$ From Citric Acid Solutions With Tetradecylammonium Salts"

Leningrad, Radiokhimiya, Vol 13, No 5, 1971, pp 705-709

Abstract: Extraction of $U^{(VI)}$ from aqueous solutions containing citric acid was studied using tetradecylammonium citrate and bromide. The goal of the study was to find optimal conditions for the extraction of $U^{(VI)}$ and to shed some light on the structure and composition of the extracted substances. Depending on the pH of the equilibrium aqueous solution, two complex compounds were observed in the organic phase with different absorption spectra. Preliminary analysis of the extraction, potentiometric and spectrophotometric data indicated that at pH 2-3 the material extracted from the solution had a formula R_4NUO_2Cit. From solutions with pH $\geq$ 6 a hydroxy complex is extracted with the ratio of R_4N/UO_2^{2+} of 1.5 and OH^-/UO_2^{2+} of 1.3. Using trioctylamine as the extracting agent, the $U^{(VI)}$ is removed from 0.3 M solution of citric acid in 100% at pH 2.75-3.0. At higher pH the extraction level drops so that at pH 5.15 no $U^{(VI)}$ is extracted at all.

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USSR UDC 542.61:546.791'6:546.266-325:543.422'4-

KUZINA, M. G., and LIPOVSKIY, A. A.

"Extraction of H_2SO_4 and U(VI) With Trioctylamine Solutions"

Moscow, Radiokhimiya, Vol 12, No 2, 1970, pp 393-396

Abstract: Infrared absorption spectra of solutions of solid preparations of the sulfate, bisulfate, and uranyltrisulfate of trialkylammonium were measured, as were spectra of extracts obtained at high $C_{H_2SO_4}$ values. It follows from these measurements that $(TOAH)_2SO_4$ is a distinct chemical species, and not a mixture of the acid and normal salts, as was found, for example, for the case of the TOA oxalate. In the transition from the solid phase to the solution, a reduction in the ν_{N-H} of 80 cm^{-1} is observed, due to a certain intensification of hydrogen bonding. Further dilution does not lead to changes in the infrared spectrum. It is established that the presence of water in the organic solutions not only changes the degee of association of TOA sulfate, but also affects the symmetry of the sulfate group. It is also shown that the presence of H_2SO_4 in the organic phase in amounts exceeding values necessary for formation of $TOAHHSO_4$ is responsible for changes in the form of the extracted uranium compound.

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1/2 027 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--EXTRACTION OF SULFURIC ACID AND URANIUMVI BY TRIOCTYLAMINE SOLUTIONS -U-

AUTHOR-(02)-KUZINA, M.G., LIPOVSKIY, A.A.

COUNTRY OF INFO--USSR

SOURCE--RADIOKHIMIYA 1970, 12(2), 393-6

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AMINE DERIVATIVE, URANIUM, SOLVENT EXTRACTION, ORGANIC SOLVENT, IR SPECTRUM, SULFURIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1933 STEP NO--UR/0186/70/012/002/0393/0396

CIRC ACCESSION NO--AP0132195

UNCLASSIFIED

2/2 027 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0132195

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF THE TRIOCTYLAMMONIUM SULFATE (I), BISULFATE (II), AND URANYL TRISULFATE SOLN. AT HIGH H SUB2 SO SUB4 CONCN. ARE MEASURED. FROM THE SPECTRA IT FOLLOWS THAT I IS AN INDIVIDUAL COMPD, AND NOT A MIXT. OF ACIDIC AND NORMAL SALTS AS IS THE CASE WITH TRIOCTYLAMMINIUM OXALATE. IN THE TRANSITION FROM THE SOLID PHASE TO THE SOLN., A DECREASE IN UPSILON SUBN-H BY 80 CM PRIME NEGATIVE1 IS OBSERVED, DUE TO A CERTAIN STRENGTHENING OF THE H BOND. THE PRESENCE OF H SUB2 O IN THE ORG. SOLN. CHANGES NOT ONLY THE DEGREE OF ASSOCN. OF THE I, BUT HAS AN EFFECT ON THE SYMMETRY OF THE SO SUB4 PRIME2NEGATIVE AS WELL. THE IR SPECTRUM OF DRY SOLID II CORRESPONDS TO DIMER FORMS WITH THE ASYM. H BOND OF THE TYPE O MINUS H. . . O. SPECTRAL CHANGES WHICH MAY BE ASSIGNED TO THE ADDN. OF H SUB2 SO SUB4 TO II ARE OBSERVED IN THE IR SPECTRUM OF SUBSTANCES PRODUCED BY EXTN. AT HITH H SUB2 SO SUB4 CONCN. THE PRESENCE OF H SUB2 SO SUB4 IN THE ORG. PHASE IN HIGHER QUANTITIES THAN ARE THOSE NECESSARY FOR THE FORMATION OF II IS RESPONSIBLE FOR A CHANGE IN THE FORM OF THE EXTD. U COMPD. ELECTRON ABSORPTION SPECTRA OF THE SOLN. (R SUB3 NH) SUB4 UO SUB2 (SO SUB4) SUB3 PLUS H SUB2 SO SUB4 AND (R SUB4 N) SUB2 UO SUB2 (SO SUB4) SUB2.2H SUB2 O ARE VERY CLOSE TO ONE ANOTHER. THIS AGREEMENT SUGGESTS THAT ONE OF THE SO SUB4 PRIME2NEGATIVE GROUPS COORDINATED TO U REACTS WITH H SUB2 SO SUB4 TO FORM BISULFATE IONS ACCORDING TO THE REACTION (R SUB3 NH) SUB4, UO SUB2 (SO SUB4) SUB3 PLUS H SUB2 SO SUB4 FORMS AND IS FORMED FROM (R SUB3 NH) SUB4 UO SUB2 (SO SUB4) SUB2 (HSO SUB4) SUB2.

UNCLASSIFIED

USSR UDC 539.311

KOTZ, V. M., LIPOVSKIY, D. YE., MOROZ, P. F. (Khar'kov)

"The Stability of Cylindrical Shells in the Case of Uneven Combined Loading"

Kiev, Prikladnaya Mekhanika, Vol 6, No 12, Dec 70, pp 61-67

Abstract: A study is made of the stability of round cylindrical shells under the action of a radial pressure that is uneven along the perimeter, and axial loads, with account taken of initial geometrical imperfections. A comparison is made of the results of experimental and theoretical research. A study is made of the character of the wave formation after loss of stability for various loading variants. 3 figures, 1 table, 6 bibliographic entries.

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USSR UDC 539.3:534.1

LIPOVTSEV, YU. V.

"Analytic Solution of Differen ce Equations of Stability"

Moscow, Mekhainka Tverdogo Tela, No 1, Jan-Feb 72, pp 77-81

Abstract: When different schemes are used for solving problems of the stability of plates and shells, the first order of priority is correspondence of the difference equations obtained by the initial differential equation, and evaluation of the error introduced by the approximation adopted for the problem. This of particular importance when the difference equations are obtained not by direct substitution of the derivatives by finite-difference relationships, but by some artificial method. It is shown that for many typical problems pertaining to stability of rods, plates and shells, the relationship of the critical paramters to the number of nodal points can be obtained in explicit form; on the basis of these examples the applicability of the adopted difference scheme can be verified, and the possible cases of convergence of the numerical solution can be analyzed. Five references.

1/1

USSR

UDC: 539.3

GRIGOLYUK, E. I. and LIPOVTSEV, Yu. V.

"Solution of One Type of Problem in Thin Shells of Revolution"

V sb. Probl. mekhan. tverd. deformir. tela (Problems in the Mechanics of Solid Deformed Bodies) Leningrad, "Sudostroyeniye" (Shipbuilding) 1970, pp 129-141 (from RZh-Mekhanika, No. 8, Aug 70, Abstract No. 8V147)

Translation: This paper describes a variant in the use of the method of finite differences using the die matrix algorithm for determining the natural numbers and functions of the static and dynamic equations in the linear theory of elastic slanting shells. The initial state of the shell is considered instantaneous and the nature of the bulge local. A method of solution and its practical realization are given. Sufficient conditions are then established for the correction of a system of difference equations which are the analogs of boundary value problems in the theory of

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USSR

GRIGOLYUK, E. I. and LIPOVTSEV, Yu. V., V sb. Probl. mekhan. tverd. deformir. tela, 1970, pp 129-141

shells. The following problems are solved: 1) the static stability of a truncated ellipsoid of revolution with axial extension; 2) the stability of a cylindrical shell under axial pressure in combination with radial forces applied along the circumference in the middle section; 3) the dynamic stability of an annular cylindrical shell in an ultrasonic gas flow. Bibliography of 21.

A. V. Sachenkov

2/2

1/2 019 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--EFFECT OF LOCAL IMPERFECTONS ON THE STABILITY OF A CYLINDRICAL SHELL UNDER AXIAL COMPRESSION -U-
AUTHOR-(02)-KUZNETSOV, V.K., LIPOVTSEV, YU.V.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK SSSR, IZVESTIIA, MEKHANIKA TVERDOGO TELA, JAN.-FEB. 1970, P 134-136
DATE PUBLISHED-------70

SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--STRUCTURE STABILITY, BIBLIOGRAPHY, CYLINDRICAL SHELL STRUCTURE, BUCKLING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1984/0175 STEP NO--UR/0484/70/000/000/0134/0136

CIRC ACCESSION NO--AP0054971
UNCLASSIFIED

2/2 019 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0054971

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF THE POSSIBILITY OF A LOCAL STABILITY LOSS IN A LONGTUDINALLY COMPRESSED CYLINDRICAL SHELL WITH AN INITIAL DEFLECTION IN THE FORM OF A LOCAL AXISYMMETRIC DEPRESSION. IT IS FOUND THAT THE PRESENCE OF INITIAL DEFLECTIONS OF A PRONOUNCED LOCAL CHARACTER LEADS TO A CONSIDERABLE REDUCTION IN THE CRITICAL LOAD. IN THE PARTICULAR CASE CONSIDERED, BUCKLING OCCURS PREDOMINANTLY IN THE REGION OF THE INITIAL DEPRESSION, RESULTING IN THE FORMATION OF A SERIES OF DEPRESSIONS LOCATED IN A CIRCLE.

UNCLASSIFIED

USSR

UDC 614.39/.4:658.387

PODUNOVA, L. G., FURSOVA, T. T., LIPOVTSEVA, V. V., and PANINA, A. I., Republic Sanitary-Epidemiologic Station, RSFSR Ministry of Health, Moscow

"Some Elements of the Scientific Organization of Labor in Sanitary-Epidemiological Stations"

Moscow, Gigiyena i Sanitariya, No 10, 1973, pp 60-62

Abstract: Councils for the scientific organization of labor were appointed in major oblast sanitary-epidemiological stations to seek ways of saving time, making more efficient use of personnel and materiel, and mechanizing labor-intensive activities and laboratory tests. Actions taken at various sanitary-epidemiological stations under the guidance of these councils include: reduction of the paper work normally required of health officers, assigning more duties to paramedical personnel, centralization or consolidation of facilities, improvement of work places, adoption of new, rapid laboratory tests, and introduction of a standard form for the collection and analysis of data on infectious diseases.

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USSR

UDC 577.154.3.03

KIYREND, E. and LIPPMAA, E., Institute of Cybernetics, Estonian Academy of Sciences

"Effect of a High-Frequency Electromagnetic Field on Hog Pancreatic Alpha Amylase Activity"

Tallinn, Izvestiya Academii Nauk Estonskoy SSR, No 4, 1973, pp 302-308

Abstract: Hog pancreatic alpha amylase was irradiated with a ship microwave transmitter for 30 to 75 min at frequencies of 10, 11, 12, 22, and 25 mHz in the temperature range of 18 to 24°, at 10.9775 mHz in the range of 27.7 to 28.2°, and at 11.970 mHz and 35.3° in an apparatus with a thermostat-controlled cuvette. Although these conditions, according to S. A. Bach, normally ensure maximum inactivation of alpha amylase, the effect of the high-frequency electromagnetic fields on the activity of the enzyme was indistinguishable from the control.

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1/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--DEHYDRATION OF CYCLOPENTANECARBINOL,1, PRIMELD C -U-

AUTHOR-(05)-LOVTSOVA, A.N., REUTOV, O.A., LIPPMAA, E., PEHK, T., SHATKINA, T.N.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. KHIM. 1970, (3), 726

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--DEHYDRATION, CYCLOPENTANE, CARBON ISOTOPE, METHYLENE, CYCLOHEXENE, CHEMICAL REACTION MECHANISM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1999/1885 STEP NO--UR/0062/70/000/003/0726/0726

CIRC ACCESSION NO--AP0123673

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0123673

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DEHYDRATION OF CYCLOPENTYLCARBINOL TAGGED WITH PRIME13 C AT THE METHYLENE GROUP, BY HEATING TO 340DEGREES WITH H SUB3 BO SUB3, GAVE MIXED OLEFINS CONTG. 70PERCENT CYCLOHEXENE, 14PERCENT 1,METHYLCYCLOPENTENE, 12PERCENT METHYLENE CYCLOPENTANE AND 4PERCENT UNIDENTIFIED MATERIAL. THE CYCLOHEXENE COMPONENT CARRIED THE TAGGED ATOM TO THE EXTENT OF 8PERCENT IN THE 4, AND 5,POSITIONS, INDICATING THAT THE INITIALLY FORMED CYCLOHEXENE IS ISOMERIZED TO SOME 30-5PERCENT. THE DEHYDRATION MECHANISM IS DISCUSSED. FACILITY: INST. ELEMENTOORG. SOEDIN., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 632:576.851.55

GVOZDYAK, R. I., LIPSHIVTS, V. V., and KHODOS, S. F.

"New Disease of Common Hornbeam (Carpinus betelus L.) Caused by Anaerobic Bacteria"

Kiev, Doklady Akademii Nauk Ukrains'koy SSR, Seriya B. Geologiya, Geofizika, Khimiya i Biologiya, No 11, 1971, pp 1,034-1,036

Abstract: Samples of hornbeam with tubercular growths were investigated. Leaves of trees were artificially infected with bacterial suspension. Fungi were not found in the infected areas, so it was concluded that anaerobic bacteria were instrumental in the infection process. Three Clostridium strains were isolated. It was concluded that the described symptoms indeed represent a new kind of plant disease of a cancer-tubercular variety. The disease is caused by Clostridium bacteria. This is the first time that the phyto-pathogenic properties of Clostridium bacteria have been identified.

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1/2 025 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--GAS CHROMATOGRAPHIC ANALYSIS OF A MIXTURE OF SECONDARY OCTYLPHENOLS -U-

AUTHOR-(03)-LIPSHTEYN, A.K., LULOVA, N.I., POLYAKOVA, A.A.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERERAB. I NEFTEKHIM. (MOSCOW) 1970, (3), 45-6

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--GAS CHROMATOGRAPHY, PLASTIC COATING, SILOXANE, ELASTOMER, ALKYLPHENOL/(U)SE30 SILOXANE ELASTOMER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3002/1102 STEP NO--UR/0318/70/000/003/0045/0046

CIRC ACCESSION NO--AP0128529

UNCLASSIFIED

2/2 025 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0128529

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SECONDARY ALKYLPHENOLS WERE ANALYZED AFTER METHYLATION TO THE CORRESPONDING ETHERS. THE RESULTING ANISOLES WERE DETD. BY USING A SHIMADZU GAS CHROMATOG. APP., WITH A STAINLESS STEEL CAPILLARY COLUMN (50 M TIMES 0.25 MM INSIDE DIAM.) COATED WITH POLY(METHYLSILOXANE) ELASTOMER SE-30. THE TEMP. OF THE COLUMN WAS 180DEGREES, THE TEMP. OF THE VAPORIZER 250DEGREES, AND THE CARRIER GAS HE. THE RELATIVE RETENTION VOLS. OF INDIVIDUAL COMPONENTS (R EQUALS OCTYLANISOLE) WERE: O-1-R, 1.240; O-2-R, 0.905; O-3-R, 0.770; O-4-R, 0.715; P-2-R, 1.135; P-3-R, 1.000; AND P-4-R, 0.945.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--HISTOCHEMICAL AND CYTOCHEMICAL STUDIES OF INTERRELATIONS BETWEEN THE CAUSAL ORGANISM OF POTATO WART DISEASE SYNCHYTRIUM ENDOBIOTICUM AND

AUTHOR-(02)-LIPSITS, D.V., TIMCHUK, K.S.

COUNTRY OF INFO--USSR

SOURCE--MIKOL. FITOPATOL. 1970, 4(1), 34-43

DATE PUBLISHED-------70

SUBJECT AREAS--AGRICULTURE, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--VEGETABLE CROP, PLANT DISEASE, BIOLOGIC STAIN, HISTOCHEMISTRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----F070/605001/E11 STEP NO--UR/9063/70/004/001/0034/0043

CIRC ACCESSION NO--AP0139383

UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0139383

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE 2-3 MM SHOOTS OF THE CANCER RESISTANT AND CANCER SENSITIVE POTATO TUBER VARIETIES WERE INFECTED WITH THE WART DISEASE INDUCING CULTURE OF S. ENDOBIOTICUM. SAMPLES OF SHOOTS WERE COLLECTED AT DIFFERENT TIMES AFTER INFECTION, AND FIXED. THE FIXED MATERIAL WAS DEHYDRATED, SEALED IN PARAFFIN, AND STAINED WITH BROMPHENOL BLUE. THE 10 MU THICK CUTTINGS WERE ANALYZED ACCORDING TO D. MAZIA, ET AL. (1953). THE HISTOCHEM. AND CYTOCHEM. ANAL. WERE CONDUCTED ACCORDING TO V. B. IVANOV (1963). THE RESULTS REVEALED THAT IN THE CANCER SENSITIVE VARIETIES OF POTATO TUBERS DESTRUCTION OF PROTEIN OCCURRED FASTER THAN IN THE CANCER RESISTANT VARIETIES. IT WAS CONFIRMED BY AN ENZYMIC TREATMENT OF SAMPLES WITH PEPSIN, TRYPSIN, AND PAPAIN SOLNS.

FACILITY: VSES. NAUCH.-ISSLED. STA, RAKU KARTOFELYA, BOYANY, USSR.

UNCLASSIFIED

USSR

UDC 623.4

KNYAZEV, V. A., and LIPSITS, D. V., Moscow Oblast Scientific Research Institute of Potato Farming

"Protein Inhibitors of X Virus in Potato Leaves"

Moscow, Doklady Akademii Nauk SSSR, Vol 200, No 5, 1971, pp 1,233-1,236

Abstract: X virus inhibitors were investigated in five potato strains with different resistance to this virus. Juice extracted from the leaves of the most resistant potato plants was most effective in protecting other plants from this infection. This ability was greatest during the blooming period. After inoculation with X virus, the concentration of the inhibitors increased in the leaves of resistant strains. Analysis of the extracts reveals that the inhibitors were thermostable and could not be separated by centrifugation; the extract retained its antigenic activity after dialysis but lost it after precipitation of proteins with trichloroacetic acid. Fractional precipitation with ammonium sulfate and chromatography demonstrated that several protein fractions possessed antigenic activity. Further chemical analyses of the fraction with the greatest inhibitory activity revealed the presence of thermostable proteins and trace amounts of nucleic acids and carbohydrates. X virus inhibitors are not totally specific since they also are fairly

USSR

KNYAZEV, V. A., and LIPSITS, D. V., Doklady Akademii Nauk SSSR, Vol 200, No 5, 1971, pp 1,233-1,236

effective against tobacco mosaic virus. The mechanism of action remains to be elucidated.

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1/2 016 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--FUNDAMENTALS OF PHYSICAL CHARTING OF THE LUNAR SURFACE -U-

AUTHOR-(C2)-LIPSKIY, L.N., SHEVCHENKO, V.V.

COUNTRY OF INFO--USSR

SOURCE--ASTRONOMICHESKII ZHURNAL, VOL. 47, NO. 3, 1970, P. 586-598

DATE PUBLISHED--------70

SUBJECT AREAS--ASTRONOMY,ASTROPHYSICS

TOPIC TAGS--LUNAR SURFACE, MAPPING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605013/D04 STEP NO--UR/0033/70/047/003/0586/0598

CIRC ACCESSION NO--AP0140394

UNCLASSIFIED

2/2 016 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AP0140394

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DESCRIPTION OF METHODS OF PREPARING PHYSICAL CHARTS GENERALIZING COMPLEX INFORMATION ON LUNAR SURFACE FEATURES. A GENERAL SCHEME FOR PLOTTING SUCH CHARTS FROM ASTROPHYSICAL DATA AND DIRECT OBSERVATIONS IS OUTLINED. THE APPLICATION OF A COMPLETE CHARTING PROCEDURE TO THE SEA OF TRANQUILITY, INCLUDING THE MAPPING OF INDIVIDUAL PHYSICAL DETAILS, IS DEMONSTRATED. BRIGHTNESS MEASUREMENTS AT SMALL PHASE ANGLES, COLOR DIVIDING IMAGES, AND SMALL SCALE TEMPERATURE CHARACTERISTICS OF THE AREA OBTAINED FROM ASTROPHYSICAL DATA ARE USED IN THE PROCESS. A PRELIMINARY PHYSICAL CHART OF THE AREA SHOWING STRUCTURAL AND GENETIC FEATURES OF ITS INDIVIDUAL SECTIONS IS PREPARED AS A RESULT. FACILITY: MOSKOVSKII GOSUDARSTVENNYI UNIVERSITET, MOSCOW, USSR.

UNCLASSIFIED

Acc. Nr.: AN0045484

Ref. Code: UR9012

JPRS 49849

New Lunar Map Being Published

(Summary: "Earthly Moon," unsigned interview with Doctor of Physicomathematical Sciences Yu. N. Lipskiy; Moscow, Pravda, 11 January 1970, p. 3)

Doctor of Physicomathematical Sciences Yu. N. Lipskiy, department head at the State Astronomical Institute imeni Shternberg, describes a new lunar map and lunar globe which were produced recently under his scientific supervision. The lunar map, at a scale of 1:5,000,000, is being published by "Nauka" Publishing House, while the globe was produced by the Moscow plant "Nature and School" of the Ministry of Education RSFSR. The map was compiled on the basis of photographs taken by the Soviet "Luna-3" and "Zond-3" stations and the American "Lunar Orbiter" vehicle. The map portrays the features on 99.5% of the moon's surface, the only blank spot being a small area in the region of the moon's south pole. A cylindrical projection was used in drawing the map and the poles are shown separately in an azimuthal projection. The map is accompanied by a list of approximately 1,000 names of lunar formations.

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A new method of selenographic tie-in of lunar features was developed by the Department of the Moon and Planets of the State Astronomical Institute to establish more precisely the coordinates of many of the lunar features. [4]

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19780441

1/2 048 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--EXPERIENCE IN AERIAL INVESTIGATION OF VOLCANIC SURFACES ON KAMCHATKA -U-

AUTHOR-(04)-LIPSKIY, YU.N., SHTEYNBERG, G.S., POSPERGELIS, M.M., NOVIKOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--STATE ASTRONOMICAL INSTITUTE; MOSCOW, ASTRONOMICHESKIY ZHURNAL, VOL 47, NO 2, 1970, PP 411-419

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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS PAPER GIVES THE RESULTS OF AN AERIAL INVESTIGATION OF VOLCANIC SURFACES ON KAMCHATKA BY POLARIZATION AND SPECTRAL METHODS. THE SURVEY WAS MADE AT ALTITUDES UP TO 1 KM WITH STANDARD SOLAR ILLUMINATION ABOARD AN AN-2 AIRCRAFT. AN ASP-15 SPECTROGRAPH WAS USED IN OBTAINING THREE SPECTRAL CHARACTERISTICS: TOTAL RADIATION INTENSITY, DEGREE OF POLARIZATION AND ORIENTATION OF THE POLARIZATION PLANE: THE SPECTRAL RANGE 410-67M MU WAS COVERED. THE USE OF AN INFRARED SPECTROMETER ASSEMBLED ON THE BASIS OF A ZMR-2 INSTRUMENT MADE IT POSSIBLE TO STUDY THE BRIGHTNESS DISTRIBUTION OF SOLAR LIGHT IN THE SPECTRUM WHICH WAS REFLECTED FROM VOLCANIC SURFACES IN THE SPECTRAL RANGE FROM 0.3 TO 2.5 MU. A CLOSE SIMILARITY WAS FOUND BY A COMPARISON OF THE POLARIZATION AND SPECTRAL CHARACTERISTICS OF THE STUDIED SURFACES AND LUNAR SURFACES (FOR THE SEAS) IN THE CASE OF A SLAG FIELD. FRESH BASALTIC LAVA FLOWS CAN BE ANALOGUES OF THE SURFACE COVER OF THE BOTTOM OF TYCHO CRATER. IT WAS NOTED THAT THE PRESENCE OF LARGE ROCK FRAGMENTS ON THE INVESTIGATED SURFACE LEADS TO A NEUTRAL DEPENDENCE OF THE DEGREE OF POLARIZATION ON WAVELENGTH. THE POLARIZATION AND SPECTRAL CHARACTERISTICS OBTAINED FOR WATER, HARDWOOD AND SOFTWOOD FORESTS ARE COMPARED.

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TITLE--CONSTRUCTION OF A HYPSOMETRIC MAP OF THE VISIBLE LUNAR HEMISPHERE WITH ALLOWANCE FOR RELIEF -U-

AUTHOR-(02)-LIPSKIY, YU.N., NIKONOV, V.A.

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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AS MANY AS TEN HYPSOMETRIC MAPS OF THE LUNAR SURFACE HAVE ALREADY BEEN CONSTRUCTED, BUT EH ISOHYPSES ON THESE MAPS ARE VERY POORLY RELATED TO REAL RELIEF FORMS. THE AUTHORS DESCRIBE STEP BY STEP HOW THEY COMPILED A NEW MAP OF THIS TYPE WHICH REFLECTS ACTUAL RELIEF FORMS MORE REALISTICALLY. THE RAW DATA WERE DRAWN FROM THE CATALOG OF 1,052 POINTS COMPILED BY HOPMANN. ALL THESE POINTS ARE ON THE VISIBLE HEMISPHERE AND ACCOUNT FOR 66 PERCENT OF ITS AREA. THE TOPOGRAPHIC MAP OF THE VISIBLE HEMISPHERE COMPILED BY THE ARMY MAP SERVICE IN 1963 WAS ALSO USED. ALL OF HOPMANN'S, 1,052 POINTS WERE IDENTIFIED IN ARTHUR'S CATALOGUE AND PLOTTED ON THE SOVIET LUNAR MAP PUBLISHED IN 1967. SINCE THE AVERAGE DENSITY OF POINTS IS 5-6 PER AREA MEASURING 10DEGREES TIMES 10DEGREES AND SINCE THE AVERAGE ELEVATION ERRORS ARE 1.3 KM, THE ISOHYPSES WILL REFLECT ONLY THE LARGEST AND MOST ELONGATED RELIEF FORMS. A SHORTCOMING IS THAT EVEN THE LARGEST CRATERS WILL NOT BE REPRESENTED AS RELIEF FORMS BY ISOHYPSES. THE COMPILED MAP HAS ISOHYPSES DRAWN AT 0.5 KM INTERVALS (THE MAP IS REPRODUCED IN THE ARTICLE AT A REDUCED SCALE). THE ELEVATIONS OF CRATER WALLS AND BOTTOMS CANNOT BE READ FROM THE MAP. THE MAP COVERS THE REGION IN THE RANGE PLUS 70DEGREES LATITUDE AND LONGITUDE AND GIVES THE HORIZONTAL AND VERTICAL POSITION OF NONCRATER RELIEF FORMS WHOSE DIAMETERS EXCEED PLUS OR MINUS 1 KM. WITH AN ACCURACY TO PLUS OR MINUS 1 KM THE MAP MAKES IT POSSIBLE TO DETERMINE THE RELATIVE ELEVATION OF AREAL FEATURES GREATER THAN 150 KM IN DIAMETER SEPARATED BY ANY DISTANCE IN THE LONGITUDE OR LATITUDE RANGE PLUS OR MINUS 70DEGREES.

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ABSTRACT/EXTRACT--THE MAP SHOWS THAT THE ZERO CONTOUR FOR THE MOST PART RUNS ALONG THE BOUNDARY OF THE CONTINENTS AND SEAS. THE HIGHEST REGIONS ARE SITUATED AROUND GEMINUS CRATER (PLUS 3.0 KM), APPOLONIUS CRATER (PLUS 3.0 KM) AND IN THE CENTRAL PARTS OF THE CONTINENTAL REGION OF THE SOUTHERN HEMISPHERE (PLUS 3.0 KM). THE LOWEST AREAS ARE THE CENTRAL REGIONS OF CIRCULAR SEAS: MARE HUMORUM (MINUS 3.0 KM) AND MARE NECTARIS (MINUS 3.0 KM). LUNAR MOUNTAINS HAVE THE FOLLOWING MAXIMUM ABSOLUTE ELEVATIONS, THAT IS, ELEVATIONS RELATIVE TO A SPHERE WITH A RADIUS OF 1,738.0 KM: ALPS PLUS 1.5 KM, CAUCASUS PLUS 3.0 KM, APPENNINES PLUS 4.0 KM, CARPATHIANS PLUS 1.5 KM, JURA PLUS 1.0 KM AND ALTAY PLUS 3.0 KM. SEAS WITH A CIRCULAR CONFIGURATION HAVE A CLEARLY EXPRESSED CONCENTRIC STRUCTURE OF ELEVATIONS, SLOPING TOWARD THE CENTER. THE CONTINENTAL REGION OF THE SOUTHERN HEMISPHERE IS NONUNIFORM IN ELEVATION; WITHIN IT THERE ARE REGIONS WITH ELEVATIONS FROM MINUS 1.0 TO PLUS 3.0 KM. THE MAXIMUM DIFFERENCE IN ELEVATION ON THE MAP IS 7.0 KM.

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