BECHIN, A.I.; VINTSER, Yu.I.; MANUKYAN, A.A.; SOKOLOV, I.A., red.; TATISHCHEV, S.I., red.

[Economic conditions of capitalist countries; general survey for 1959 and the beginning of 1960] Ekonomicheskoe polozhenie kapitalisticheskikh stran; kon"iunkturnyi obzor za 1959 g. i nachalo 1960 g. Moskva, Izd-vo "Pravda", 1960. 119 p. (Prilozhenie k zhurnalu "Mirovaia ekonomika i mezhdunarodnye otnosheniia," no.8, avgust, 1960 g.). (MIRA 13:8)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhdunarodnykh otnosheniy.
(Economic conditions)

MANUKYAN, A.A.; MENZHINSKIY, Ye.A., red.

[Economic conditions of capitalist countries; survey of business activities for the 1960 and the beginning of 1961] Ekonomicheskoe polozhenie kapitalisticheskikh stran; kon"iunkturnyi obzor za 1960 g. i nachalo 1961 g. (Prilozhenie k zhurnalu "Mirovaia ekonomika i mezhdunarodnye otnosheniia" no.7 iiul' 1961 g.). Moskva, Izd-vo "Pravda, 1961. 140 p. (MIRA 14:8)

1. Kon"yunkturnyy sektor instituta mirovoy ekonomiki i mezhdunarodnykh otnosheniy AN SSSR (for Manukyan).
(Economic conditions)

MANUKYAN, A.A.; RYDVANOV, N.F.; BELOUS, T.Ya.; SVIRIDOVA, Z.P.; CHEBOTAREVA, Ye.A.; SHUMILIN, V.I.; PUDINA, K.V.; LUTSKAYA, Ye.Ye.; BRAGINA, N.M.; SANDAKOV, V.A.; MUSSO, S.; ZABLOTSKAYA, A.I.; VDOVICHENKO, D.I.; MIRKINA, I.Z.; MORENO, I.; SIDOROV, V.F.; MOKLYARSKIY, B.I.; GRECHIKHIN, A.A.; KOSOVA, V.A.; KULIKOV, N.I.; ZHDANOVA, L.P.; ROZENTAL', Ye.I.; PETRANOVICH, I.M.

[Economic conditions of capitalist countries; survey of economic trends in 1961 and the beginning of 1962] Ekonomicheskoe polozhenie kapitalisticheskikh stran; kon'iunkturnyi obzor za 1961 g. i nachalo 1962. g. Moskva, Izd-vo "Pravda," 1962. 157 p. (MIRA 16:9)

1. Sotrudniki kon"yunkturnogo sektora Instituta mirovoy ekonomiki i mezhdunarodnykh otnosheniy AN SSSR.
(Economic history)

MANUKYAN, A. A.

Dissertation defended for the degree of Doctor of Economic Sciences in the Institute of World Economics and International Relations

"Problems of the Postwar Economic Development of the Capitalist Countries."

Vestnik Akad. Nauk, No 4, 1963, pp 119-145

MANUKYAN, A.A.

New artificial plastic teeth. Stomatologiia, Moskva no.1:66 1951.
(CIML 20:8)

1. Of the Central Institute of Traumatology and Orthopedics of the Ministry of Public Health USSR.

AVAKYAN, S.N.; MANUKYAN, A.A.

Dicyanodiamide complexes of cadmium chloride and bromide [in Armenian with summary in Russian]. Nauch. trudy Erev. un. 60: 109-116 '57. (MIRA 11:8)

1.Kafedra neorganicheskoy khimii Yerevanskogo gosudarstvennogo universiteta.
(Cadmium chloride) (Cadmium bromide) (Complex compounds)

MANUKYAN, A.Kh.

Torsion of a nonuniform rod with a cross section in the form of circular ring sector. Izv.AN Arm.SSR.Ser.FMET nauk 5 no.4:1-6 '52. (MLRA 9:8)

1. Yerevanskiy politekhnicheskiy institut imeni K. Marksa.
(Elastic rods and wires)

MANUKYAN, A.Kh.

Torsion of a nonhomogeneous rod with T-cross section. Izv.AN Arm. SSR.Ser.FMET nauk 5 no.5:29-38 '52. (MLRA 9:8)

1. Yerevanskiy politekhnicheskiy institut imeni K. Marksa.
(Elastic rods and wires)

SVERDLOV, Iosif Yakovlevich, konstruktor; MANUKIAN, A.M., red.

[Experimental housing construction in North Ossetia] Eksperimental'noe zhilishchnoe stroitel'stvo v Severnoi Osetii. Ordzhonikidze, Severo-Osetinskoe knizhnoe izd-vo, 1964. 46 p. (MIRA 18:3)

MANUKYAN, E.M.

AUTHOR: Manukyan, E. M. 108-12-4/10

TITLE: Nomogram for h- Parameters of Semiconductor Triodes (Homogramma h-parametrov poluprovodnikovykh triodov).

PERIODICAL: Radiotekhnika, 1957, Vol. 12, Nr 12, pp. 29-35 (USSR)

ABSTRACT: In low frequency calculations it is advisable to use formulae which directly contain the measured parameters of the active quadripoles. The number of formulae of computation here is reduced to a minimum because they are universal with respect to all three triode circuits. Among the possible parameter systems for an equivalent active quadripole the h-parameter system is the best for low frequency measurements and computations. The most usual formulae, expressed by h-parameters, are given. This is done for the voltage amplification coefficient, the input resistance, the output resistance, the current amplification coefficient, and the power amplification. Besides, another coefficient, that of voltage feedback, which determines the ratio between input- and output voltage with an EMF (electromotive force) of the signal source being equal to zero, can be of use. It characterizes in a certain manner the insula-ing-

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and buffer qualities of the cascade. Usually the h-parameters are measured either in a scheme with a common basis or in a scheme with a common emitter. It is necessary to determine the h-parameters for the given scheme according to known parameters of another semiconductor-triode-wiring circuit or according to known parameters of a T-shaped scheme. Sometimes the parameters of the T-shaped spare scheme must be computed according to known h-parameters. All these parameters can be carried out by means of transformation formulae. They may be set up with the aid of transducer equations (quadrupole equations), the supplementary scheme, and Kirchhoff's theorems. These formulae, which, as it is, are somewhat complicated, are somewhat simplified and apply to all possible cases. In order to facilitate computation according to these formulae, a nomogram is given here. The directions how to use them are added, and in conclusion an example is calculated.

Nomogram for h-Parameters of Semiconductor Triodes 108-12-4/10

There are 3 figures, 1 table, and 2 references, 1 of which is Slavic, and 1 English.

SUBMITTED: January 27, 1957 (initially) and July 17, 1957 (after revision)

AVAILABLE: Library of Congress

1. Triodes-Circuits 2. Mathematics-Theory

Card 3/3

MANUKYAN, G.Kh.

Effect of the psychoprophylactic method on the course of labor and Puerperium in primaparae over 28 years of age. Akush. i gin. 39 no.3:81-84 My-Je'63 (MIRA 17:2)

1. Iz rodil'nogo doma No.1 g. Gor'k[illegible] nauchnyy rukovoditel' dotsent Yu. A. Vinogradova, glavnyy vrach A.S. Ust'yantseva).

MANUKYAN, G.Kh.

Use of the psychoprophylactic anesthesia method in labor of older primiparas with abortions in the anamnesis. Sov. med. 28 no.5:127-132 My '65. (MIRA 18:5)

1. Rodil'nyy dom No.1 (nauchnyy rukovoditel' - doktor med. nauk Yu.A. Vinogradova, glavnyy vrach Ye.A.Sheronova), Gor'kiy.

MANUKYAN, G.S.

Diagnostic importance of the hydrophilic test of endarteritis obliterans. Zhur. eksp. i klin. med. 3 no.3:61-65 '63.
(MIRA 17:1)

1. Klinika gospital'noy khirurgii Yerevanskogo meditsinskogo instituta.

MANUKYAN, Kh.

Creative help of scientific workers to industry. Prom.koop. no.11: 46-47 N '55. (MLRA 9:5)

1. Predsedatel' pravleniya arteli "Bytremont".
(Ordzhonikidze--Silversmithing)

MANUKYAN, K. A.

Coal Mines and Mining

Mining under a pond and a dam. Ugol' no. 6(315) (19 2)

9. Monthly List of Russian Accessions, Library of Congress, August 1952 Uncl.

MANUKYAN, K.A.

Method of determining the deflection of a borehole. Bezop. truda v prom. 8 no.12:20 D '64. (MIRA 18:3)

1. Glavnyy marksheyder tresta Sovetskugol', Donbass.

MANUKYAN, K. G.

Manukyan, K. G.

"The Content and Metabolism of Nucleic Acids and Phospholipids in the Rabbit Brain during Ontogenesis." Acad Sci USSR. Inst of Physiology imeni I. P. Pavlov. Laboratory of Comparative Biochemistry of the Central Nervous System. Leningrad, 1955. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No. 27, 2 July 1955

USSR/Medicine - Biochemistry

Card 1/1 Pub. 22 - 29/47

Authors : Manukyan, K. G.

Title : Nucleinic acids and phospholipids of a rabbit brain in ontogenesis

Periodical : Dok. AN SSSR 101/6, 1085 - 1088, Apr. 21, 1955

Abstract : Experiments were conducted on rabbits of various ages (from 22 day embryos to adult animals) to study the changes in concentrations and rate of rejuvenation of necleinic acids and phospholipids of rabbit brains during ontogenesis. Results obtained by studying the 4 major sections of the brain are listed. Fifteen references : 8 USSR, 2 English, 4 USA and 1 French (1945-1954). Table; graphs.

Institution : Acad. of Sc., USSR, The I. P. Pavlov Inst. of Physiol.

Presented by: Academician K. M. Bykov, December 20, 1954

MANUKYAN, K.G.

Exchange of phosphorus of nucleic acids and phospholipides in the brain of rabbit during ontogenesis. K. G. Manukyan (I. P. Pavlov Physiol. Inst., Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 102, 667-70(1955); cf. *C.A.* 49, 12650c.—Na phosphate labeled with P^{32} was used for the study of P exchange in rabbits of various ages. The rate of penetration of P^{32} into all brain sections is high in the early embryonic state, declines toward birth, and continues to decline after birth, reaching near adult level at about 30 days, as found in the inorg. P fraction of P compds. The ribonucleic acid (RNA) fraction shows a higher exchange rate at all ages than does desoxyribonucleic acid (DNA). The cortex contains much DNA and shows a rapid exchange rate, especially in the young embryos; the renewal rate is quite low in post-embryonic stages. RNA exchange remains rather unchanged through ontogenesis, although its content in the cortex gradually declines. The midbrain shows rapid exchange rate of DNA in young embryos, rising slightly at birth and 2-6 days afterward, then declining rapidly, with a relatively const. content of DNA. RNA exchange rate remains nearly const. in the midbrain. Medulla oblongata and spinal cord show a rise of DNA in the 1st month after birth; in early embryonic state the exchange rate in DNA is relatively low, while that of RNA increases constantly becoming at 15 days of age higher than in the cortex or midbrain. This is explainable by greater content of the white matter in later stages of development. Brain phospholipides show high exchange rate in early stages, then decline with age, after 15 days of post-embryonic period. In adults the cortex shows a somewhat higher rate than do other parts of the brain. The decline of the rate is greatest in the spinal cord (cf. Logan, *et al.*, *C.A.* 46, 10357b).

G. M. Kosolapoff

SMIRNOV, A.A.; CHIRKOVSKAYA, Ye.V.; MANUKYAN, K.G.

Study of phospholipids in various segments of the rat brain using various methods of paper chromatography. Biokhimiia 26 no.6:1027-1033 N D '61. (MIRA 15:1)

1. Laboratory of Neurochemistry, Institute of Evolutionary Physiology, Academy of Sciences of the U.S.S.R., Leningrad.
(BRAIN)
(PHOSPHATIDES)
(PAPER CHROMATOGRAPHY)

KREPS, Ye.M.; MANUKYAN, K.G.; SMIRNOV, A.A.; CHIRKOVSKAYA, Ye.V.

Study of phospholipides of the nervous system in the evolutionary series of animals. Biokhimiia 28 no.6:978-986 N-D'63 (MIRA 17:1)

1. Laboratory of Neurochemistry, Institute of Evolutionary Physiology, Academy of Sciences of the U.S.S.R., Leningrad.

L 62782-65

ACCESSION NR: AP5020628 UR/0218/64/029/006/1111/1118 14 B

AUTHOR: Krepa, Ye. M.; Manukyan, K. G.; Patrikeyeva, M. V.; Smirnov, A. A.; Chenykayeva, Ye. Yu.; Chirkovskaya, Ye. V.

TITLE: Phospholipids of the subcellular particles of hen's brain

SOURCE: Biokhimiya, v. 29, no. 6, 1964, 1111-1118

TOPIC TAGS: cell physiology, brain, cytology, experiment animal

Abstract: Investigations were conducted to determine the content of phospholipids in the subcellular particles (mitochondria, microsomes, and nuclei) of a hen's brain. Grown hens of the White Leghorn variety were used in the investigations. A hen's brain separated from the membrane and the blood vessels was reduced to fine particles and homogenized with a solution of saccharose and ethylenediamine tetraacetate for two minutes. The subcellular particles were isolated by differential centrifuging at temperatures of + 2 to four degrees. The phospholipid content in the subcellular particles was determined by paper chromotography. The investigations established that the phospholipid content was largest in the microsomes, and somewhat lower in the mitochondria and nuclei -- by 10-15 percent. Some differences characterized the fractions: lecithin was

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L 62752-65
ACCESSION NR: AP5020628

found to be the largest component in all of the fractions; the fraction content of phosphatidilethanol and phosphatidilserine was somewhat smaller; small concentrations of sphingomyelin, phosphatidilinositol, and phosphatidilglycerol were found. An absence of phosphatidilglycerol is characteristic of the microsomes, although it is always present in the mitochondria and nuclei. It was established also that the microsomes contain larger quantities of shingomyelin and lecithin than the other fractions, while the mitochondria contain larger quantities of ethanoaminophosphatide and serinophosphatide. Orig. art. has 1 figure and 2 tables.

ASSOCIATION: Institut evolyutsionnoy fiziologii i biokhimii im. I. M. Sechenova Akademii nauk SSSR, Leningrad (Institute of Evolutionary Physiology and Biochemistry, Academy of Sciences SSSR)

SUBMITTED: 23Apr64 ENCL: 00 SUB CODE: LS

NO REF SOV: 005 OTHER: 020 JPRS

Card 2/2

KREPS, Ye.M.; MANUKYAN, K.G.; PATRIKEYEVA, M.V.; SMIRNOV, A.A.; CHENYKAYEVA, Ye.Yu.; CHIRKOVSKAYA, Ye.V.

Phospholipids of subcellular brain particles in chick embryogeny. Zhur. evol. biokhim. i fiziol. 1 no.1:16-25 Ja-F '65. (MIRA 18:6)

1. Institut evolyutsionnoy fiziologii i biokhimii im. I.M. Sechenova AN SSSR, Leningrad. 2. Glavnyy redaktor "Zhurnala evolyutsionnoy biokhimii i fiziologii" (for Kreps).

DZHANPOLADYAN, L.; SIMONOV, M.; AGADZHANYAN, G., akademik: MANUKYAN, Kh.; MAMIKONYAN, K.; GABOYAN, M.; KURGINYAN, M., nauchnyy sotrudnik

Scientists and public workers train replacements. NTO 5 no.7: 10-19 Jl '63. (MIRA 16:8)

1. Predsedatel' Armyanskogo respublikanskogo soveta nauchno-tekhnicheskikh obshchestv (for Dzhanpoladyan). 2. Predsedatel' byuro po promyshlennosti komiteta obshchestvennoy aspirantury, chlen-korrespondent AN Armyanskoy SSR (for Simonov). 3. Predsedatel' byuro po sel'skomu khozyaystvu komiteta obshchestvennoy aspirantury i AN Armyanskoy SSR (for Agadzhanyan). 4. Direktor sovkhoza "Masis" (for Manukyan). 5. Nachal'nik tsekha Yerevanskogo khrompikovogo zavoda (for Mamikonyan). 6. Direktor leninakanskogo zavoda "Strommashina" (for Gaboyan). 7. Institut stroymaterialov i sooruzheniy (for Kurginyan).
(Armenia—Technical education)

MNDZHOYAN, A.L.; AVAKYAN, V.M.; MANUKYAN, L.A.

Relation between the chemical strucutre and antiarrhythmic effect in the series of dialkylaminoethylamides, morpholyl- and piperidyl-propylamides of -alkylaminobenzoic acid. Izv. AN Arm. SSR. Biol. nauki 17 no. 1:19-26 Ja '64. (MIRA 17:7)

1. Institut tonkoy organicheskoy khimii AN Armyanskoy SSR.

AVAKYAN, V.M.; MANUKYAN, L.A.

Comparative study of the pharmacological properties of disamide and novocaine amide. Zhur. eksp. i klin. med. 5 no.1:25-32 '65.
(MIRA 18:10)

MANUKYAN, L.K.

Pollen morphology of the Caucasian representatives of the genus Linum L. Trudy Bot. inst. AN Arm.SSR 14:65-77 '64.
(MIRA 18:3)

USSR/Human and Animal Morphology (Normal and Pathological) Nervous System.

Abs Jour : Ref Zhur - Biol., No 7, 1958, No 31245

Author : Hanukyan L.Kh.
Inst : ~~Not Given~~
Title : Projected Anatomy of the Tibial Nerve

Orig Pub : Tr. Yerevansk. med. in-ta, 1956, vyp. 8, 39-43.

Abstract : The tibial nerve in 50% of the cases begins on the level of the upper node of the popliteal fossa; in 30% of the cases, lower than this node; in 20% of cases, above the upper node of the popliteal fossa. The projected line of the tibial nerve runs from the point located on the level of the upper edge of the tibia 6 mm to one side of the axis of the shinbone, to a point located on the level of greatest protuberance of the medial malleolus, 11 mm more medially than the axis of the shinbone.

Card : 1/1

USSR/Human and Animal Morphology - Normal and Pathological. S
Circulatory System. Blood Vessels.

Abs Jour : Ref Zhur Biol., No 23, 1958, 105932

Author : Manukyan, L.Kh.

Inst : Bureau of the Main Medicolegal Expert's Opinion and Chair of Forensic Medicine, Yerevan Medical Institute

Title : Six Cases of Absence of the Posterior Tibial Artery

Orig Pub : Sb. tr. Byuro gl. sudebnomed. ekspertizy i kafedry sudebn. med. Yerevansk. med. in-ta 1957, vyp. 2, 403-414

Abstract : Two hundred lower extremities were studied in one hundred human cadavers of ages ranging from 20 to 70 years or more(146 male, 54 female). The absence of the posterior tibial artery (PTA) was observed in six cases (3%). It occurs with equal frequency in one or both extremities. The author suggests that the absence of PTA results from

Card 1/2

USSR/Human and Animal Morphology - Normal and Pathological. S
Circulatory System. Blood Vessels.

Abs Jour : Ref Zhur Biol., No 23, 1958, 105932

the reduction of the part of the PTA below the anastomosis with the peroneal artery, the distal segment of which replaces the distal end of the PTA.

Card 2/2

MANUKYAN, L.K.

Morphology of microspores in the genus Astragalus L. Izv. AN Arm. SSR. Biol. nauki 13 no.10:23-30 '60. (MIRA 13:12)
(MILK VETCHES) (POLLEN—MORPHOLOGY)

MANUKYAN M.A.

ROZNO, A.I.; MANUKYAN, M.A.

Relations between the anatomic and electrical axes of the heart in patients with bronchial asthma. Vrach.delo no.7:759-761 Jl '57. (MLRA 10:8)

1. Kabinety funktsional'noy diagnostiki i rentgenodiagnostiki kurorta "Livadiya"
(ASTHMA) (HEART--ABNORMITIES AND DEFORMITIES)

MANUKYAN, M.A., kand.sel'skokhozyaystvennykh nauk; AGIYAN, E.T., kand.-sel'skokhozyaystvennykh nauk

Structure of the flock in sheep farming of the Armenian S.S.R. Trudy Arm. nauch.-issl. inst.zhiv. i vet. 4:41-52 '60. (MIRA 15:5)

(Armenia--Sheep)

MANUKYAN, M.A., kand.sel'skokhozyaystvennykh nauk

Effect of the similarity in the immunobiologic degree of parents on the weight of the newborn. Trudy Arm. nauch.-issl. inst.zhiv. i vet. 4:63-70 '60. (MIRA 15:5)
(Stock and stockbreeding) (Immunology)

MANUKYAN, M.A. (Kiyev)

Evaluation of the therapeutic use of biostimulators in the restorative stage of poliomyelitis. Vrach.delo no.2:109-113 F '63. (MIRA 16:5)

1. Institut infektsionnykh bolezney AMN SSSR.
(POLIOMYELITIS) (TISSUE EXTRACTS)

AKOPYAN, S.A., prof.; MANUKYAN, M.A., aspirant

Course of experimental (alloxan) diabetes in irradiated animals. Vop. radiobiol. [AN Arm. SSR] 3/4:11-16 '63.

Effect of adrenaline on the blood sugar in irradiated and nonirradiated animals as influenced by aminazine. Ibid.:269-273

(MIRA 17:6)

MANULYAN, M.A.

Wind regime over the Surami Pass. Trudy ZakNIGMI no.18: 75-90 '65. (MIRA 19:1)

MANUKYAN, M.K. (Baku)

Case of toxicodermatitis caused by urotropine in the treatment of trichomonal colpitis. Fel'd. i akush. 27 no.1:53-54 Ja '62. (MIRA 15:3)

(SKIN--INFLAMMATION) (VAGINA--DISEASES)
(HEXAMETHYLENETETRAMINE--PHYSIOLOGICAL EFFECT)

MANUKYAN, M. L.

"Fastening of Teeth Made of Plastic AKR-7 to Bridges Prosthesis,"

Stomatologiya, No. 3, 1948.

MANUKYAN, M.L.

New construction of dental bridges with interchangeable teeth. Stomatologiia 40 no.2:82-85 Mr-Ap '61. (MIRA 14:5)

1. Iz sektora proteznoy stomatologii (zav. - kand.med.nauk I.I. Revzin) TSentral'nogo instituta travmatologii i ortopedii.
(DENTAL PROSTHESIS)

MANUKYAN, M.M.

Stresses in compressed reinforced concrete building units taking into account the nonlinear creep of concrete. Izv. AN Arm. SSR. Ser. FMET nauk 7 no.1:59-68 Ja-F '54. (MLRA 8:2)

1. Yerevanskiy gosudarstvennyy universitet im.V.M.Molotova.
(Reinforced concrete) (Strains and stresses)

MANUKYAN, M.M.

MANUKYAN, M.M.

Contraction stresses in symmetrically reinforced concrete units accounting for nonlinear creep in the concrete. Izv.AN Arm.SSR Ser. FMET nauk 7 no.3:19-32 My-Je '54. (MLRA 8:3)
(Strains and stresses) (Reinforced concrete)
(Creep in materials)

MANUKYAN, M.M.

Determining stresses in some reinforces concrete elements allowing for creep and changes of modulus in instantaneous deformations in concrete. Izv. AN Arm. SSR. Ser. FMET nauk 7 no.6:35-50 N-D '54.
(MLRA 8:7)

1. Yerevanskiy gosudarstvennyy universitet imeni V.M. Molotova.
(Creep of materials) (Reinforced concrete)

MANUKYAN, M.M.

Thermal stress in round concrete blocks taking into consideration creep of concrete. Izv.AN Arm.SSR.Ser.FMET nauk 9 no.1:49-73 '56. (MLRA 9:8)

1. Yerevanskiy gosudarstvennyy universitet imeni V.M. Molotova.
(Concrete blocks) (Creep of materials)

MANUKYAN, M.M.

Deformations and stresses in bent reinforced concrete beams accounting for creep of compressed and partly stretched concrete zones. Izv.AN ARM.SSR.Ser.FMET nauk.9 no.9:27-45 '56. (MLRA 10:2)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR.
(Concrete, Reinforced) (Deformations (Mechanics)

MALOYAN, M.M.

Bending of a reinforced concrete beam taking into consideration the stabilized creep only of the compressed zone of concrete. Izv.AN Arm.S.S.R.Ser.fiz.-mat.nauk 10 no.4:83-86 '57. (MLRA 10:9)

1. Institut matematiki i mekhaniki Akademii nauk Armyanskoy SSR.
(Reinforced concrete) (Girders) (Creep of materials)

MANUKYAN, M. M.

ARUTYUNYAN, N.Kh.; MANUKYAN, M.M.

Creep of cylindrical compound tubes. Izv. AN Arm. SSR. Ser. fiz.-mat. nauk 10 no.6:41-58 '57. (MIRA 11:2)

1. Institut matematiki i mekhaniki AN ArmSSR.
(Creep of materials)

MANUKYAN M.

ABRAMYAN, B.L.; MANUKYAN, M.M.

Solving the plane problem of the elasticity theory for a rectangle associated with transpositions. Dokl. AN Arm. SSR 25 no.4:177-184 '57. (MIRA 11:2)

1. Institut matematiki i mekhaniki AN ArmSSR. Predstavleno N.Kh. Arutyunyanom..

(Elasticity)

MANUKYAN, M.M.

Thermal stresses caused by the exothermic nature of cement in concrete slabs with consideration of the creep of concrete. Iav. AN Arm. SSR. fiz.-mat. nauk 11 no.2:99-109 '58. (MIRA 11:6)

1.Institut matematiki i mekhaniki AN ArmSSR.
(Concrete slabs) (Strains and stresses) (Creep of materials)

16(1)

AUTHORS: Arutyunyan, N.Kh., Manukyan, M.M. SOV/22-11-6-6/10

TITLE: State of Stress in Compressed Reinforced-Concrete Elements for Instationary Creeping and Setting of the Concrete (Napryazhennoye sostoyaniye v szhatykh zhelezobetonnykh elementakh v usloviyakh neustanovivsheysya polzuchesti i usadki betona)

PERIODICAL: Izvestiya Akademii nauk Armyanskov SSR. Seriya fiziko-matematicheskikh Nauk, 1958, Vol 11, Nr 6, pp 3-14 (USSR)

ABSTRACT: The authors consider the state of stress of reinforced-concrete elements loaded with pressure for instationary creeping and variable amount of the instantaneous deformation. The authors use the non-linear equations of creeping from [Ref 1] and reduce the considered problem to the solution of a non-linear integral equation of Volterra type. The solution is carried out according to a method proposed by the authors and R.A. Aleksandryan in [Ref 2] which distinguishes itself by the fact that as first approximation there is not used the elastic solution but the solution of the corresponding linear creeping problem. The convergence velocity of the successive approxi-

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State of Stress in Compressed Reinforced-Concrete Elements for Instationary Creeping and Setting of the Concrete

SOV/22-11-6-6/10

mations is essentially accelerated by this choice of the initial approximation. As examples for the application of the method the following problems are considered in detail : 1.) Determination of the state of stress in compressed reinforced-concrete elements (the stresses of the concrete and of the reinforcement are separately determined) , 2.) Determination of the stresses in symmetrically reinforced elements caused by the setting. The linear approximative solution of these problems is due to N.Kh. Arutyunyan [Ref 1] .
There are 4 tables, and 5 Soviet references.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)
SUBMITTED: June 15, 1958

Card 2/2

ALEKSANDRYAN, R.A.; ARUTYUNYAN, N.Kh.; MANUKYAN, M.M. (Yerevan)

Torsion of thin-walled rods of a closed cross section under conditions of unsettled creep. Prikl.mat. i mekh. 22 no.6: 766-780 N-D '58. (MIRA 11:12)

1. Institut matematiki i mekhaniki, Vychislitel'nyy tsentr AN Arm SSR.

(Torsion) (Creep of materials)

ARTYUNYAN, N.Kh., akademik; MANUKYAN, M.M.

Creep in spherical containers. Dokl.AN Arm.SSR 27 no.4:209-216 '58.
(MIRA 12:1)

1. AN Armyanskoy SSR (for Arutyunyan). 2. Institut matematiki i mekhaniki AN Armyanskoy SSR i Yerevanskiy gosudarstvennyy universitet.
(Creep of materials)

SOV/179-59-1-10/36

AUTHORS: Aleksandryan, R. A., Arutyunyan, N. Kh., Manukyan, M. M. (Yerevan)

TITLE: Relaxation Problems in Bending of a Prismatic Bar (Relaksatsionnaya zadacha ob izgibe prizmaticheskogo sterzhnya)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 1, pp 73-81 (USSR)

ABSTRACT: The paper is a continuation of previous work (Refs.5 and 6). Earlier papers by other workers (Refs.1-4) have dealt with the creep of prismatic bars; in the present paper the stress relaxation in a bent prismatic bar undergoing unsteady creep is discussed. The cross-section of the bar possesses two perpendicular symmetry axes, and stresses in longitudinal planes are neglected in comparison with stresses in the cross-section. It is assumed that the non-linear relation between stress and creep strain is characterised by the function:

$$F(\sigma) = \alpha\sigma + \beta\sigma^m \quad (m>0) \qquad (1.8)$$

where α, β and m are constants. This equation has been

Card 1/2

Relaxation Problems in Bending of a Prismatic Bar

found to fit the experimental results over a wide stress range for many materials, e.g. concrete and wood. On the basis of the above assumptions, a non-linear integral equation is obtained and a method of solving it is described. The solution is then applied to the problem of the relaxation of bending moment in a bar with rectangular cross-section. Approximate evaluation in the case of a particular concrete beam 20 x 30 cm in cross-section shows that relaxation of bending moment depends markedly on the value of β in Eq.(1.8). There are 1 figure, 1 table and 6 Soviet references.

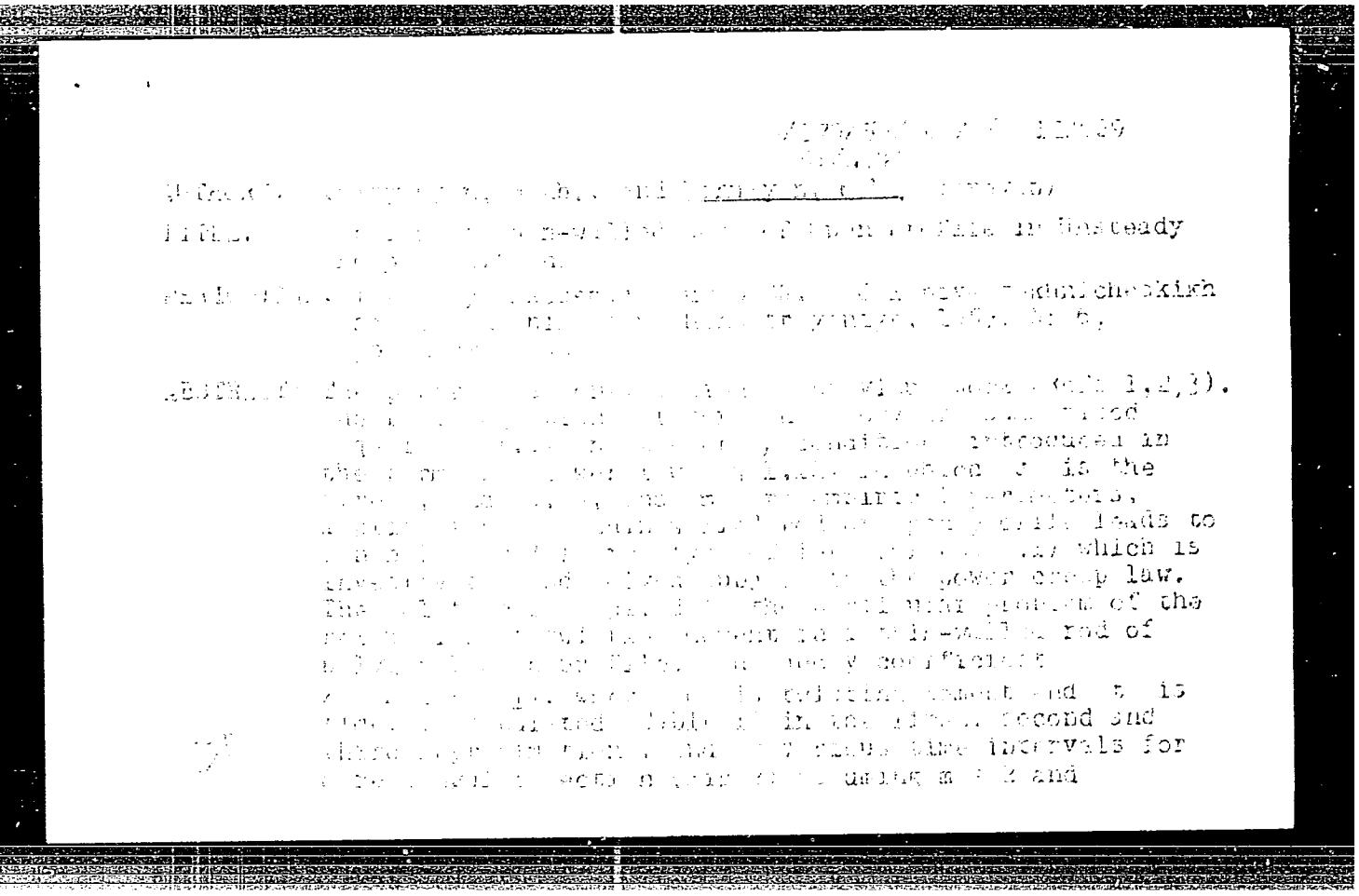
ASSOCIATION: Institut matematiki i mekhaniki AN Armyanskoy SSR, Vychislitel'nyy tsentr AN Armyanskoy SSR (Institute of Mathematics and Mechanics and Computational Centre, Academy of Sciences, Armenian SSR)

SUBMITTED: December 15, 1958.

ALEKSANDRYAN, R.A. (Yerevan); MAMUKYAN, M.M. (Yerevan); ARUTYUNYAN, N.Kh. (Yerevan)

Relaxation problem of the bending of a prismatic rod. Izv. AN SSSR. Otd. tekh. nauk. Mekh. i mashinostr. no.2:73-81 Ja-F '59. (MIRA 12:5)

1. Institut matematiki i mekhaniki AN ArmSSR i Vychislitel'nyy tsentr AN ArmSSR.
(Creep of materials)



AUTHOR

S/179/59/000/06/012/029
E081/E142

Torsion of Prismatical Rods of Open Profile in Unsteady Creep Conditions

[illegible] 0,001 and 0,005. The case of a square box section is considered and the decay coefficient at various [illegible] is tabulated (Tables 2, 3) for two such sections, one of which has a closed profile (Fig 3, left-hand) and the other an open profile (Fig 3, right-hand).

Table 2. Value of decay coefficient χ for closed and open profile

	1st Approximation		2nd Approximation			
	[illegible]		$\beta = 0,001$		$\beta = 0,01$	
Card 2/2	closed	open	closed	open	closed	open

There are 3 figures, 3 tables and 5 Soviet references.

ASSOCIATION: Institut matematiki i mekhaniki AN ArmSSR (Institute of Mathematics and Mechanics, Ac.Sc., Armenian SSR)

SUBMITTED: [illegible]

ARUTYANYAN, N.Kh., akademik; MANUKYAN, M.M.

Plastic torsion of a conic rod. Dokl. AN Arm.SSR 29 no.1:9-16 '59.
(MIRA 12:11)

1. Institut matematiki i mekhaniki Akademii nauk Armyanskoy SSR.
2. AN Armyanskoy SSR (for Arutyanyan).
(Elastic rods and wires) (Torsion)

MANUKYAN, M. N.

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

1. A. A. Abbasov, A. V. Kasimov, Ia. A. Mirzaris (Baku): Supersonic motions of visco-plastic solids and the basis for improving well cementation.

2. A. A. Abbasov, V. N. Mukhliyev, A. A. Mirzadzhan (Baku): Heat transfer in moving viscous and visco-plastic solids.

3. B. L. Abramian (Erevan): Torsion of cylindrical shafts.

4. B. L. Abramian, A. A. Babloian (Erevan): Torsion of circular hollow shafts with longitudinal notches.

5. V. L. Agamirov, A. S. Volmir, V. E. Mineev (Moscow): Buckling and post-buckling behavior of shells under dynamic loading.

6. A. Ia. Aleksandrov (Novosibirsk): Some relations between the solutions of plane and axisymmetrical problems in the theory of elasticity.

7. A. Ia. Aleksandrov (Novosibirsk): Experimental investigation of plane elastic-plastic problems by means of photoelastic films.

8. V. M. Aleksandrov, Iu. A. Ustinov (Rostov-na-Donu): Some contact problems in elasticity.

9. R. A. Aleksandrian, N. Kh. Arutiunian, M. N. Manukian (Erevan): Torsion of prismatic bars under transient creep.

10. R. A. Alekseev (Moscow): Two-dimensional bodies of equal strength.

11. N. A. Alumiae (Tallin): Axisymmetrical vibration of an elastic conical shell.

12. S. A. Ambartsumian (Erevan): On the theory of anisotropic shells and plates.

13. S. A. Ambartsumian, L. A. Movsisian (Erevan): Some problems in the theory of anisotropic (non-orthotropic) shells.

14. L. Ia. Amiro (Kiev): Stability analysis of a stiffened cylindrical shell under axial compression.

15. V. V. Andreev, A. M. Kosevich, L. V. Tanatarov (Kharkov): The inelastic deformation and residual strains in a plane layer of a solid under allotropic transformations.

16. L. G. Aramanovich (Moscow): The stress distribution in a heavy half-space with a circular hole, the edge of which is subject to non-equilibrated forces.

17. N. Arcan, M. Tannenbaum (Bucharest): Photoelastic model studies of cracked reinforced concrete beams.

18. N. Kh. Arutiunian (Erevan): The plane contact problem of the theory of creep.

19. T. V. Assonova, T. I. Kataenina, A. A. Trapeznikov (Moscow): Shear strengths and limits of reversible strains of solutions and gels of some rubbers.

20. I. N. Baida (Leningrad): The general solution of the problem of elastic strains in a cylinder of finite length.

21. G. I. Barenblatt (Moscow): The theory of equilibrium cracks under brittle rupture.

22. G. M. Bartenev (Moscow): Rheological properties of rubber-like polymers.

23. M. F. Barshtein (Moscow): Dynamic design of structures subjected to random effects.

24. E. P. Baskinbenko (Moscow): Temperature distribution in container and metal during extrusion.

25. Bai an Pin (Peking), Siun Tsziu-Kuan (Tsunshe), G. S. Shapiro (Moscow): On the dynamics of rigid-plastic structures.

26. V. G. Berezantsev (Leningrad): The theory of the limit state of stress in soil mechanics and its applications.

27. A. Ia. Birkgan, A. S. Volmir (Moscow): The use of electronic digital computers for solving non-linear problems in the theory of plates and shells.

28. V. I. Blokh (Kharkov): Stress displacement functions.

29. V. A. Bobin (Dnepropetrovsk): Difference-variational methods of the theory of structures.

30. V. A. Beibe (Kiev): On solving Hertz's contact problem with interior fields of plasticity.

31. V. V. Bolotin (Moscow): Method of space transformations in the non-linear theory of plates and shells.

32. V. V. Bolotin (Moscow): The non-linear problems of aero-elasticity at supersonic speeds.

33. V. V. Bolotin (Moscow): Strength and damage under action of random forces.

34. V. V. Bolotin (Moscow): The statistical theory of seismic design of structures.

MANUKYAN, M.M.

Investigating the bend of a reinforced concrete beam taking into account the transit creep of the compressed area of concrete only. Izv. AN Arm. SSR. Ser. fiz.-mat. nauk 13 no.2:89-103 '60. (MIRA 13:10)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR.
(Strains and stresses) (Reinforced concrete)

SVISTUNOV, G.A., inzh.; MANUKYAN, M.M., inzh.; POLUENEVA, V.I., inzh., red.

[Heating frozen ground with devices operating on diesel fuel] Otogrev merzlovo grunta ustanovkami na dizel'nom toplive; opyt organizatsii Glavmosstroia. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 16 p. (MIRA 14:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. Byuro tekhnicheskoy informatsii. 2. Glavnyy nauchnyy konsul'tant po mekhanizatsii i energorabotam v stroitel'stve Moskovskoy vystavki novoy stroitel'noy tekhniki 1960 g. Vystavki dostizheniy narodnogo khozyaystva SSSR (for Svistunov). 3. Rukovoditel' gruppy Spetsial'nogo konstruktorskogo byuro "Mosstroy" (for Manukyan).
(Frozen ground)

89490
S/022/61/014/001/010/010
B112/B202

16.7300
AUTHOR: Manukyan, M. M.

TITLE: Torsion of compound cylinders of variable cross sections under the conditions of stabilized creeping

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko-matematicheskikh nauk, v. 14, no. 1, 1961, 115-121

TEXT: In continuation of a study by K. S. Chobanyan the author investigates the torsion of compound cylinders with variable cross sections. Only bars and torsional forces of axially symmetrical structure acting upon them are considered. Using the cylinder coordinates r, ϑ, z and introducing a stress function ϕ, the components of the stress tensor have the following form:

$$\tau_{r\vartheta}^{(l)} = -\frac{1}{r^2}\frac{\partial \Phi_l}{\partial z}, \qquad \tau_{\vartheta z}^{(l)} = \frac{1}{r^2}\frac{\partial \Phi_l}{\partial r}.$$

After establishing the general equilibrium and boundary conditions two special cases are dealt with: 1) torsion of a cone-shaped bar with an angle of aperture 2γ: The author obtains the following solution for the stress

Card 1/3

Torsion of compound ...

function in spherical coordinates ξ, ϑ, φ: $\Phi_l = C_l \int_{\gamma_{l-1}}^{\gamma_l} (\sin\beta)^{2+\mu} d\beta \quad (\gamma_0 = 0).$

where μ an experimentally determined material constant $(0<\mu<1)$ and C can be determined from the relation $M = 2\pi \sum_{l=1}^{n} C_l \int_{\gamma_{l-1}}^{\gamma_l} (\sin\theta)^{2+\mu} d\theta \quad (\gamma_0 = 0).$

for the moment of torsion.

$\tau_{\theta\varphi}^{(l)} = 0.$

$\tau_{\beta\varphi}^{(l)} = C_l \frac{(\sin\theta)^{\mu}}{\rho^2}.$

is obtained for the stress tensor. 2) Torsion of a round bar of the radius R: in this case, the author uses cylindrical coordinates and obtains:

$\Phi_l(r) = \frac{B_l}{3+\mu_l} r^{3+\mu_l}$

$M = 2\pi \sum_{l=1}^{n} B_l \frac{1}{3+\mu_l} r^{3+\mu_l}$

The relation
is obtained for the determination of the integration constants B where M is the moment of torsion
are the components of the stress tensor.

$\tau_{\beta\varphi}^{(l)} = 0,$

$\tau_{\theta z}^{(l)} = B_l r^{\mu_l}.$

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89490

S/022/61/014/001/010/010
B112/B202

Torsion of compound ...

There are 3 figures and 3 Soviet-bloc references.

ASSOCIATION: Institut matematiki i mekhaniki AN Armyanskoy SSR (Institute of Mathematics and Mechanics AS Armyanskaya SSR)

SUBMITTED: July 4, 1960

Card 3/3

MANUKYAN, M.M.

Steady-state creep in a conical rod being twisted. Izv. AN Arm. SSR. Ser. fiz.-mat. nauk 14 no.2:149-153 '61. (MIRA 14:4)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR i Yerevanskiy gosudarstvennyy universitet.
(Creep of materials) (Deformations (Mechanics))
(Elastic rods and wires)

ARUTYUNYAN, N.Kh.; MANUKYAN, M.M.

Torsion of a solid of revolution in conditions of steady creep. Izv. AN Arm. SSR. Ser. fiz.-mat.nauk 14 no.4:103-114 '61. (MIRA 14:11)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR i Yerevanskiy gosudarstvennyy universitet.
(Creep of materials)
(Torsion)

MANUKYAN, M.M.

Torsion of prismatic rod with a rectangular cross-section under conditions of unstable creep. Dokl.AN ARM SSR 32 no.2:79-86 '61. (MIRA 14:3)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR i Yerevanskiy gosudarstvennyy universitet. Predstavleno akademimikom AN ArmSSR N.Kh.Arutyunyanom.
(Torsion) (Creep of materials) (Elastic rods and wires)

ARUTYUNYAN, N.Kh. (Yerevan); MANUKYAN, M.M. (Yerevan)

Insertion of a rigid wedge into a semiplane under conditions of steady creep. Prikl. mat. i mekh. 26 no.1:165-169 Ja-F '62. (MIRA 15:1)

(Creep of materials) (Plasticity)

MANUKYAN, M.M.

Torsion of a sectional shaft of variable diameter in nonlinear creep. Izv. AN Arm.SSR.Ser.fiz.-mat. nauk 16 no.5:59-81 '63. (MIRA 16:11)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR i Yerevanskiy gosudarstvennyy universitet.

ACCESSION NR: AP4010024 S/0022/63/016/006/0075/0100

AUTHOR: Manukyan, M. M.

TITLE: Contact problem in the theory of unsteady creep with friction

SOURCE: AN ArmSSR. Izvestiya. Ser. fiz.-matem. nauk, v. 16, no. 6, 1963, 75-100

TOPIC TAGS: equilibrium, stress, strain, plastic deformation, friction, creep

ABSTRACT: The problem of half-plane equilibrium loaded on the surface simultaneously with vertical and horizontal forces, under material creep, is examined, assuming a power law relationship between stress and strain. The stress-strain relationships of plastic deformation are used to derive a Volterra integral equation of the second kind. The effect of friction is added, which reduces the plane contact problem in nonlinear creep theory to the solution of two integral equations:

$$\omega(x, t) - \int_{\tau_1}^{t} \omega(x, \tau) \frac{\partial C(t, \tau)}{\partial \tau} d\tau = |\tau(t) - [E(t) D_\alpha(\tau_1)]^m f_0(x)|^n,$$

$$\int_{s} \frac{[a_2 - \operatorname{sign}(s - x) a_1]^n p(s, t)\, ds}{|s - x|^{1-\gamma}} = \omega(x, t),$$

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ACCESSION NR: AP4010024

where $\omega(x,t)$ indicates the function depending on the parameters x, t, and the unknown function γ, and C is the characteristic creep of the material. The example of an iron press applied on a half-plane is considered under conditions of stable creep with friction, and a numerical solution is presented. Orig. art. has: 118 equations, 4 tables, and 3 figures.

ASSOCIATION: Institut matematiki i mekhaniki AN Armyanskoy SSR (Institute of Mathematics and Physics AN Armenian SSR); Yerevanskiy gosudarstvenyy universitet (Yerevan State University)

SUBMITTED: 27Jul63 DATE ACQ: 03Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 008 OTHER: 000

Card 2/2

ACCESSION NR: AP4015968 S/0040/63/027/005/0813/0820

AUTHORS: Arutyunyan, N. Kh. (Yerevan); Manukyan, M. M. (Yerevan)

TITLE: Contact problem in creep theory with consideration of friction

SOURCE: Prikl. matem. i mekhan., v. 27, no. 5, 1963, 813-820

TOPIC TAGS: contact problem, creep, friction, steady state creep, deformation, plastic heredity, equilibrium, Fredholm integral equation

ABSTRACT: The auth[illegible]lve a plane contact problem in creep theory with consideration of friction. [illegible] the original physical hypothesis they use the theory of steady-state creep, whose equation is expressed by

$$\varepsilon_i = A\sigma_i^m$$

Here ε_i is the intensity of the rate of deformation, σ_i is the stress intensity, m is the exponent of creep, and A is the creep coefficient. The use of the theory of steady-state creep is not essential to the problem; others could also have been used, but the authors use this one for simplicity of presentation. They obtain a singular Fredholm integral equation of first kind as the basic equation for the

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ACCESSION NR: AP4015968

problem, and show the dependence between the intensities of the rate of deformation of stress. They reduce this to an equation which they are able to solve in special cases such as pressure of a rigid stamp on a half-plane under steady-state creep conditions with consideration of friction, and they give a numerical solution. Orig. art. has: 2 tables, 3 figures, and 44 formulas.

ASSOCIATION: none

SUBMITTED: 09Feb63	DATE ACQ: 21Nov63	ENCL: 00
SUB CODE: AP	NO REF SOV: 004	OTHER: 001

Card 2/2

MANUKYAN, M.M.

Insertion of a rigid wedge into a semispace in unsteady creep. Dokl. AN Arm. SSR 37 no.2:55-63 '63. (MIRA 17:2)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR i Yevevanskiy gosudarstvennyy universitet. Predstavleno akademikom AN ArmSSR N.Kh. Arutyunyanom.

ACCESSION NR: AP4002736 S/0252/63/037/004/0177/0184

AUTHOR: Manukyan, M. M.

TITLE: Torsion of a prismatic composite bar with a thin reinforcing cladding under nonlinear creep conditions

SOURCE: AN ArmSSR. Doklady*, v. 37, no. 4, 1963, 177-184

TOPIC TAGS: composed prismatic bar torsion, nonlinear creep, composed bar, prismatic bar, bar reinforcement, elastic cladding, rod torsion, composed prismatic bar, bar torsion, creep subjected rod

ABSTRACT: This paper was presented by N. Kh. Arutyunyan, the academician of the Armenian SSR, on 17 May 1963. Consider a prismatic bar composed of various prismatic substances. Along the lateral surface and the surfaces of lengthwise openings the bar is covered by thin reinforcing layers, whose thicknesses are negligibly small with respect to the dimensions of the transverse section and of the external curvature radii of these layers. According to the author and V. S. Sarkisyan (Izvestiya AN ArmSSR (seriya fiz. -mat. nauk), 3 (1963)) the solution of this problem reduces to determining a stress function $\Phi(x,y,t)$ in the region of the bar's transverse section, satisfying the nonlinear integro-differential equations

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ACCESSION NR: AP4002736

$$\Delta\Phi_l(t) - G_l(t)\int_{\tau_1}^{t}\Delta\Phi_l(\tau)\frac{\partial}{\partial\tau}\left[\frac{1}{G_l(\tau)}\right]d\tau - 3G_l(t)\int_{\tau_1}^{t}\left\{\frac{\partial}{\partial x}\left[F_l(\sigma_l^{(1)})\frac{\partial\Phi_l}{\partial x}\right] - \right. \quad (1)$$

$$\left. + \frac{\partial}{\partial y}\left[F_l(\sigma_l^{(1)})\frac{\partial\Phi_l}{\partial y}\right]\right\}\frac{\partial C_l(t,\tau)}{\partial\tau}d\tau = -2G_l(t)\theta(t), \quad (1)$$

and the following conditions on the contour of the bar and the separation lines

$$\Phi_k(s, \lambda, t) = C_k(t), \quad (2)$$

$$\Phi_k(s, 0, t) = \Phi_l(s, 0, t), \quad (3)$$

$$\frac{1}{G_k}\frac{\partial\Phi_k}{\partial n} = \frac{1}{G_l(t)}\frac{\partial\Phi_l(t)}{\partial n} - \int_{\tau_1}^{t}\frac{\partial\Phi_l(\tau)}{\partial n}\frac{\partial}{\partial\tau}\left[\frac{1}{G_l(\tau)}\right]d\tau - \quad (2)$$

$$- 3\int_{\tau_1}^{t}F_l[\sigma_l^{(1)}(\tau)]\frac{\partial\Phi_l(\tau)}{\partial n}\frac{\partial C_l(t,\tau)}{\partial\tau}d\tau. \quad (4)$$

The author then specializes to some more specific equations which he gets by applying some of his physical assumptions. These are solved by standard techniques. In particular, he treats the case of torsion of a circular bar with a reinforcing

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ACCESSION NR: AP4002736

covering. Orig. art. has: 38 formulas and 2 figures.

ASSOCIATION: Institut matematiki i mekhaniki Akademii nauk Armyanskoy SSR (Institute of Mathematics and Mechanics, Academy of Sciences, Armenian SSR); Yerevanskiy gosudarstvenny*y universitet (Yerevan State University)

SUBMITTED: 00 DATE ACQ: 20Dec63 ENCL: 00

SUB CODE: AP NO REF SOV: 004 OTHER: 000

Card 3/3

MANUKYAN, M.M. (Yerevan)

"Torsion and bending of composite bodies under conditions of non-linear creep".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

MANUKYAN, M.M.

Solution of a two-dimensional contact problem in the theory of creep in the presence of two contact areas. Izv. AN Arm. SSR. Ser. fiz.-mat.nauk 18 no.5:65-73 '65.

(MIRA 18:12)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR i Yerevanskiy gosudarstvennyy universitet. Submitted May 14, 1965.

USSR / Farm Animals. Sheep and Goats Q-3

Abs Jour : Ref hur - Biol. No 10, 1958, No 45214

Author : Martirosyan, M. O.; Manukyan, M. O.
Inst : Not given
Title : Certain Problems Connected with the Further Development of Kolkhoz Sheepbreeding in the Armenian SSR.

Orig Pub : Tr. Arm. n.-i. in-ta zhivotnovodstva i veterinarii, 1957, 2, 33-45.

Abstract : No abstract.

Card 1/1

MANUKYAN, N.

Scientific and technical propaganda center. NTO 3 no.12:37-38 D '61. (MIRA 15:1)

1. Direktor Doma tekhniki nauchno-tekhnicheskikh obshchestv. (Erivan--Technology--Information services)

MANUKYAN, N., inzh.

Mechanizing the removal of metal chips. Prom. Arm. 4 no.7:24-27 Jl '61. (MIRA 14:7)
(Conveying machinery)

MANUKYAN, N., inzh.

"Experimental study on the movement of dislocations in metals" by O.I.Mgebrian. Reviewed by N.Manukian. Prom.Arm. 5 no.3:71-73 Mr '62. (MIRA 15:4)

(Metallography) (Mgebrian, O.I.)

MANUKYAN, N.

Principal trends of our work. Prom.Arm. 5 no.8:56-58 Ag '62.
(MIRA 15:8)

1. Zamestitel' predsedatelya Armyanskogo respublikanskogo Soveta nauchno-tekhnicheskikh obshchestv.
(Armenia--Technology--Societies, etc.)

MANUKYAN, N.

Conference on iron casting. Prom.Arm. 5 no.11:61-63 N '62. (MIRA 15:12)
(Armenia—Iron founding)

MANUKYAN, N., inzh.

Two seminars. Prom.Arm. 5 no.12:62-64 D '62. (MIRA 16:2)
(Armenia—Metallurgical research) (Metals—Welding)

MANVELYAN, M.G.; MIKAYELYAN, G.I.; OGANESYAN, E.B.; OVSEPYAN, E.B.; MANUKYAN, N.A.

Recovery of mineral oils with calcium metasilicate. Khim. i tekh. topl. i masel 8 no.6:33-36 Je '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.
(Oil reclamation)
(Calcium silicates)

L 57731-65 EWT(d)/EWP(e)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(z)/
ACCESSION NR: AR5015165 EWP(b)/EWP(l) Pf-4 JD UR/0137/65/000/005/G036/G036

34
32
B

SOURCE: Ref. zh. Metallurgiya, Abs. 5G213

AUTHOR: Manukyan, N. V.; Kas'yan, M. V.

TITLE: Efficient methods for production of iron powders

CITED SOURCE: Tr. 7 Vses. nauchno-tekhn. konferentsii po poroshk. metallurgii. Yerevan, 1964, 142-159

TOPIC TAGS: powder metal, powder metal production, iron, iron ore, cast iron cuttings

TRANSLATION: New methods have been developed for production of iron powders using cheap starting materials - cast iron cuttings and iron ore concentrates. A hydromechanical method for producing powder consists of the operations of grinding cast iron cuttings, wet magnetic enrichment of the powder obtained, and annealing the powder in a self-reducing atmosphere. Grinding of the cuttings was done in a type M200 vibration mill built by VNIITISM, in a liquid medium in the presence of surface active substances (sodium hydroxide and soda) with a solid-liquid phase ratio equal to 1:0.25. The volumetric ratio of the charge

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ACCESSION NR: AR5015165

of balls and the material being ground was 2.5. Magnetic enrichment was done in a type 120B-SE magnetic drum separator, with a field strength of 400-500 oersteds, a current strength of 4-5 a, and a solid-liquid ratio equal to 1:4. During the separation, free carbon, silicon, and compounds of manganese, sulfur, and phosphorus go into the tailings, while the chemically bound carbon and silicon, dissolved in alpha iron, remain in the powder. The enriched powder contains up to 1% carbon and 5-7% iron oxides. In the annealing, a self-reducing atmosphere is created due to the residual carbon. Annealing is done at 950° for 1 hr, with subsequent slow cooling. The carbon content of the powder after annealing is 0.3% and the total iron is 97.2%. For the use of iron concentrates, an iron ore method is proposed. A mixture of cast iron powder and enriched concentrate (total iron approximately 68%) is subjected to simultaneous reduction, in which the carbon contained in the cast iron powder serves as the reducing agent. Best results were obtained after annealing at 1100° for 2 hrs, with a concentrate to powder ratio equal to 1:4. The speed of reduction depends on the particle size of the starting materials and the quality of the mixing. Along with reduction during annealing, there occurs the formation of silicates and other compounds which go into the tailings during separation. The reduced sponge is ground in the liquid phase, and the pulp is subjected to magnetic separation under the same conditions. The powder is again reduced in hydrogen at 700° with a holding

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ACCESSION NR: AR5015165

time of 30 min. The iron content in the powder is 98.6%. The industrial properties of both powders are practically identical to those of iron powder reduced from rolled sinter, and the density is somewhat higher. The mechanical properties of samples made of the powders produced by the iron ore method are 40-50% higher than those of samples made of reduced powder, which is explained by the presence of bonding elements in the powder. An industrial flow sheet has been worked out for production of the powders, technical and economic calculations have been made, and the equipment has been selected. V. Kvin.

SUB CODE: MM,IE ENCL: 00

Card 3/3

MANUKYAN, N.V.

Processes taking place during the heat treatment of powder materials. Poroshmet. 5 no.12:73-78 D '65.
(MIRA 19:1)

1. Armyanskiy komitet poroshkovoy metallurgii. Submitted March 19, 1965.

L 45903-66 EWP(e)/EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD

ACC NR: AR6016753 SOURCE CODE: UR/0277/66/000/001/0022/0023

AUTHOR: Manukyan, N. V.

TITLE: Investigation of the physical and mechanical properties of iron powders and sintered components

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin, Gidroprivod, Abs. 1.48.142

REF SOURCE: Sb. Poroshk. metallurgiya i metallooobrabotka. Yerevan, 1965, 68-101

TOPIC TAGS: iron powder, powder metal sintering, metal physical property

ABSTRACT: The author studied iron powders prepared by the hydromechanical, iron ore, vortex and electrolytic methods and produced by reduction from scale using gas and solid carbon. It is found that the physical and technological properties of powders prepared by the hydromechanical and iron ore methods correspond to GOST 9849-61 for iron powder produced by the reduction method. Hydromechanical powders have better moldability. The mechanical properties observed for ordinary specimens sintered from iron ore powder are higher by a factor of more than 1.5 than those sintered from hydromechanical powder. Specimens sintered at 1200-1250°C from hydromechanical and reduction powders have identical porosity. However, the ductility of specimens made

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from hydromechanical powder is lower than that of specimens made from reduction powder. The strength of specimens made from hydromechanical powder is higher than that of specimens made from powders produced by the vortex and electrolytic methods. The mechanical properties of specimens sintered at 1150-1200°C are 40-50% higher for iron ore powders than for reduction powders although their plastic properties are close. The maximum tensile and bending strength, hardness and elongation increase with sintering temperature, reaching a maximum at 1200-1250°C. A. Usov. [Translation of abstract]

SUB CODE: 11

Card 2/2 mjs

: USSR

: Cultivated Plants. Commercial. Oleiferous. Sugar-Bearing.

: [illegible]

: Manukyan, O.M.

: ~~Turkmen Agric. Inst.~~

: Experiments on the Agrotechny of Raising Jute.

: Turkm. s.-kh. In-ta, 1957, 2, 87-92

: This two year long experiment in raising jute was conducted at Ashkhabadskiy Rayon on the collection plot of the Institute with "Pervenets Uzbekistana 420" variety. The sowing rate was 1-/ kg/ha. The best results in stalk length and yield were gotten with later sowing. In the 1953 experiment with planting on 19 May only stalks of the first and second varieties (59 and 41%, respectively) were produced. The basic harvest of the

CARD : 1/2

SUBJECT : Cultivated Plants.

SOURCE : R [illegible] -B [illegible]giya No.5 , 1957, No.2, 405

AUTHOR :
INST. :
TITLE :

ABSTRACT :

ABSTRACT : early sowing (24 April) was produced by the poorest kinds of stalks. In 1958 from a sowing made on 15 May, 83.31 cwt/ha of the first quality stalks were gathered and 30.5 cwt/ha of bast, as against 35.69 cwt/ha of stalks and 12.99 cwt/ha of bast gotten from the 24 April planting. The best method of planting is in two strips with 60 cm between the rows. -- O. Yu. Sobolevskaya

CARD : 2/2

USSR

Cultivated Plants. Fodder Grasses and Roots.

SOURCE, JOUR.: Ref Zhur-Biologiya, No. 5, 1959, No. 20378

AUTHOR : Ovezmuradov, S.O.; Manukyan, O.M.

INST. : --

TITLE : Sowing Times for Sudan Grass.

ORIG. PUB.: S. kh. Turkmenistana, 1958, No.3, 41-44

ABSTRACT : No abstract

CARD : 1/1