expansion had been reached, and the contraction of the line of tear was measured. Fig. 1 shows the rate $v_{s.c.}$ of spontaneous contraction as a function of time at a deformation rate 100 mm/min. v_0 was obtained as characteristic value for the relaxation properties of the material by extrapolating for t = 0. Fig. 2 shows values of v_0 as a function of the rate of deformation v_{def}. v_0 increases less and less with increasing v_{def}. Fig. 3 shows v_0 as a function of the expansion ε. The groove at the edge of samples No. 1 leads to a steep rise of v_0. Table 1 gives the values of v_0 at v_{def} = 500 mm/min, t_{def} = 0.2 min, as well as the ratio γ of the additional orientation of the material. $\gamma = \varepsilon_p/\varepsilon$ (ε_p = expansion of sample No. 2 until tearing, ε = expansion of sample No. 1 with equal $v_{s.c.}$). $v_{s.c.}$ increases with rising polarity (higher number of nitrile groups), whereas γ decreases. There are 3 figures, 1 table, and 2 Soviet references.

Study of the Spontaneous Contraction of Polymers With Fully Developed Spatial Structure in the Course of Tearing

S/020/60/133/006/010/016
B004/B064

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Engineering imeni M. V. Lomonosov)

PRESENTED: April 6, 1960, by V. A. Kargin, Academician

SUBMITTED: March 21, 1960

Card 3/3

S/190/62/004/005/003/026
B119/B101

AUTHORS: Gul', V. Ye., Mayzel', N. S., Kamenskiy, A. N., Fodiman, N.M.

TITLE: Electroconducting, polymer-base systems. I. Study of the structure of current conducting compositions on the basis of unhardened resins

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 5, 1962, 642-648

TEXT: The authors studied the structural and mechanical properties, the microstructure (with a [illegible]-2 (D-2) electrostatic electron microscope at 6000-fold electrooptic magnification), and the electrical conductivity of various phenol formaldehyde resins of the resol type (I) or the [illegible]-40 (E-40) epoxy resin type (II) filled with acetylene black. Results: Up to 30% carbon black is contained in the resin in the form of isolated particles; the specific electrical resistance is almost constant in the range of carbon black concentrations (30%. From 30% onward, the carbon black particles of I (grain size: ~25 Å) are contacting one another continuously. Thus, the values of the electrical resistance are much lower than in mixtures containing less carbon black. With II, the grains of carbon black

Card 1/2

S/190/62/004/005/004/026
B119/B101

AUTHORS: Gul', V. Ye., Mayzel', N. S., Kamenskiy, A. N., Fodiman, N.M.

TITLE: Electroconducting polymer-base systems. II. Study of the structure of current-conducting compositions on the basis of hardened resins

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 5, 1962, 649-654

TEXT: The authors studied the structural and mechanical properties (with a combined device consisting of a Polyani dynamometer and a PMT-3 (PMT-3) microhardness tester), the microstructure (with an electron microscope), and the electrical conductivity of various phenol formaldehyde resins of the resol type (I) or the E-40 (E-40) epoxy resin type (II) during and after hardening. Resins with a specific resistance below 10^5 ohm·cm are considered to be current conducting (according to R. H. Norman, Rubber J., 31, 24, 1956). Results: The specific resistance of the resins decreases rapidly at the beginning of the hardening process (up to the fifth to fifteenth minute; especially evident

with a 25% content of carbon black in the resin), then it remains practically constant. The structural examination shows that the increasing steric cross linkage of the resin during hardening causes volume contraction and, consequently, filler accumulation on the one hand, and disintegration and further distribution of carbon-black particles on the other hand. A continuous carbon black structure forms and improves the conductivity of hardened resins. Three-dimensional cross linkage of I, which is greater than that of II, makes all these effects much stronger. P. A. Rebinder and Ya. M. Parnas are thanked for their advice. There are 5 figures.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M. V. Lomonosova(Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov)

SUBMITTED: February 20, 1961

ACCESSION NR: AP4041767 S/0032/64/030/007/0827/0829

AUTHORS: Kamenskiy, A. N.; Fodiman, N. M.

TITLE: Electronmicroscopic investigation of carbon black structures in the mixtures of a polymer with carbon black

SOURCE: Zavodskaya laboratoriya, v. 30, no. 7, 1964, 827-829

TOPIC TAGS: polymer, carbon black, ELMI D2 electron microscope, LKB 3314 ultramicrotome, polyisobutylene carbon black mixture, carbon black structure, polyisobutylene P 118, ultrathin section, acetylene carbon black, electron microphotograph, carbon black, roplica method, pseudoreplica method

ABSTRACT: The investigation involved mixtures of polyisobutylene P-118 with 5-50% (by weight) of acetylene carbon black. It was desired to determine the relation between the distribution of carbon black particles and the method of sample preparation. The "replica method" consisted of applying (under vacuum) carbon dust to a fresh surface of polyisobutylene, and of removing the dust with gelatin or collodion. Another version of this method consisted of coating the surface with a 50-micron layer of aluminum, removing this layer, dusting it on the contact side with carbon black, and dissolving the aluminum in 10% HCl. In the "pseudoreplica

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ACCESSION NR: AP4041767

method", the polyisobutylene surface was moistened with a drop of benzene which caused a slight swelling of the outer layer. Carbon black dust set on films of gelatin, collodion, or copper foil was then applied to the swollen surface for a few seconds. The swollen layer with the imbedded carbon black particles was removed from the polyethylene and was dissolved, and the carbon black particles were transferred to objective grids. The authors also prepared ultrathin sections (1000-1500 Å thick) from carbon-black-coated samples embedded in polymethylmethacrylate. All the mixtures were examined under an ELMI-D2 electron microscope at a magnification of 6000-12 000. It was found that at a 5% concentration the carbon black was distributed in the form of single particles or small aggregates, and that the size of the aggregates in the replicas and pseudoreplicas increased with the growth of carbon black concentration. At a 30% concentration the aggregates exceeded in size their interspaces, which fact may indicate the formation of a space lattice. This view is supported by a sharp drop of sample resistivity when the concentration of carbon black rises from 15% to 30%. Examination of the thin sections did not reveal much change in the character of the carbon black patterns with an increase in its concentration. This the authors attribute to the shortcomings of this method which places only a few carbon black chains in the plane of the section. Orig. art. has: 3 ultramicroscope photographs.

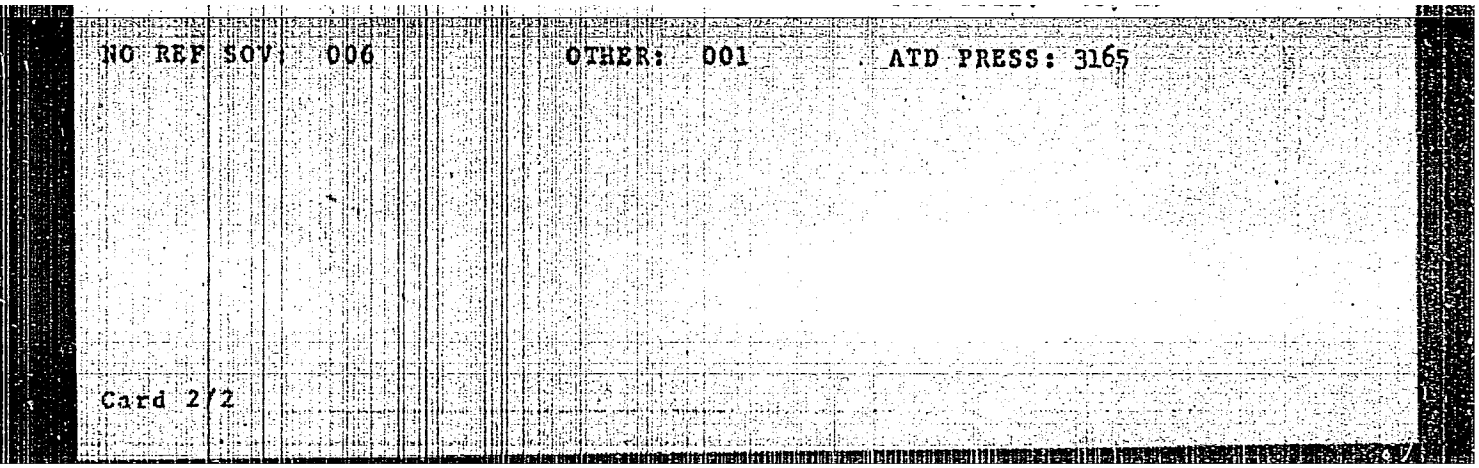
ASSOCIATION: Moscovskiy institut tonkoy khimicheskoy tekhnologii im. M. V.

Card 2/3

L 21091-65

ACCESSION NR: AP5001998

Interdiffusion to such depths was regarded as confirming the role of diffusion phenomena in the formation of strong adhesive bonds between polymers. Orig. art. has: 1 figure.



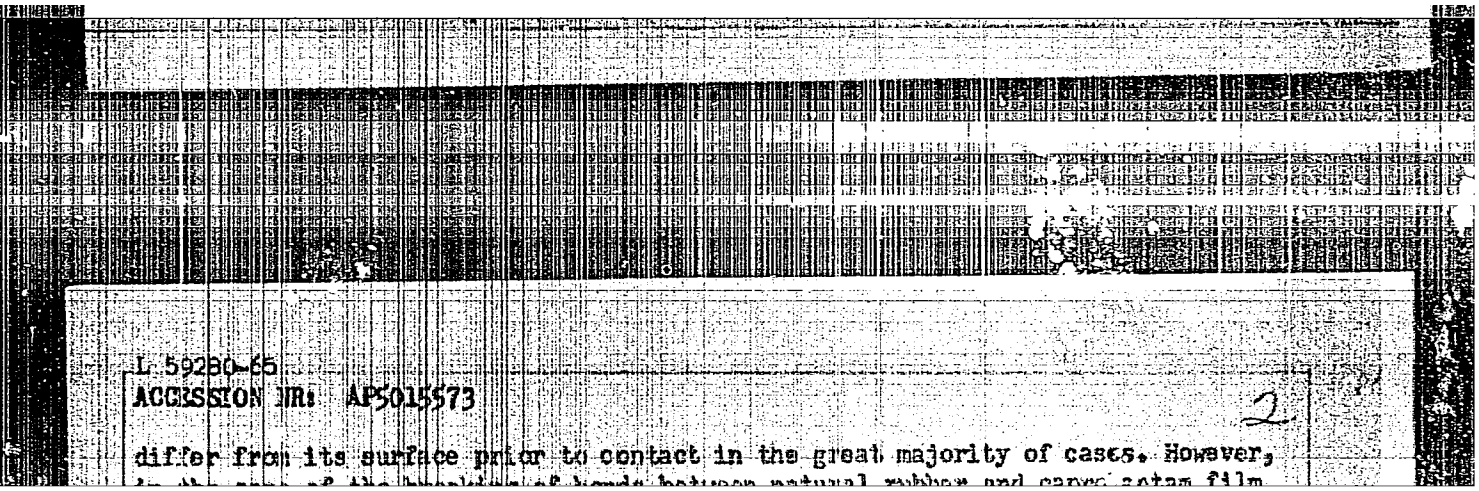
L 51395-65

ACCESSION NR: AP5011251

2

interpenetration of macromolecules to a rather great depth, on the order of hundreds and thousands of angstroms. It is concluded that diffusion is an important factor in the production of adhesive bonding. Orig. art. has: 2 figures (but only 1 sent with the article).

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Engineering)



differ from its surface prior to contact in the great majority of cases. However,

RAYEVSKIY, V.C.; GUL', V.Ye., VOYUTSKIY, S.S.; KAMENSKIY, A.N.; MONEVA, I.

Study of the surface of a caprolactam film. Izv. vys. ucheb. zav.; khim. i khim. tekh. 8 no.1:131-134 '65. (MIRA 18:6)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti i Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.

L 01953-67 EWT(m)/EWP(v)/EWP(j) IJP(c) WW/RM

ACC NR: AP6023398 SOURCE CODE: UR/0374/66/000/003/0446/0452

AUTHOR: Voyutskiy, S. S.; Kamenskiy, A. N.; Fodiman, N. M.

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Direct evidence of self- and interdiffusion in the formation of an adhesive bond between polymers

SOURCE: Mekhanika polimerov, no. 3, 1966, 446-452

TOPIC TAGS: adhesive bonding, physical diffusion, polyvinyl chloride, polymethyl methacrylate, polybutyl methacrylate

ABSTRACT: The paper discusses direct evidence of diffusion of one polymer into another, obtained by the method of tagged atoms and by means of microscopy in ordinary and UV light. It is shown that the diffusion rate in these cases is sufficiently high to explain the formation of autohesive or adhesive bonds by the interweaving of the macromolecules. Electron microscopy followed by microphotometry of the pictures obtained showed the presence of interdiffusion in the systems polymethyl methacrylate (PMM) - polyvinyl chloride (PVC) and polybutyl methacrylate (PBM) - PVC at 160-220°C. It is shown that a temperature increase in the range studied promotes the interpenetration of the polymers. The latter is less in PBM - PVC than in PMM - PVC. This is apparently due to the lesser compatibility of PVC and PBM because of the lower polarity of

Card 1/2 UDC: 678.01.53

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KAMENSKIY, A.S.

Electric heating of GZh-9 vibrating screens. Koks i khim. no.3: 60 '56. (MLRA 9:8)

1. Stalinskiy koksokhimicheskiy zavod.
(Coal preparation)

3(4)

AUTHOR: Kamenskiy, A. S., Engineer SOV/154-59-1-2/19

TITLE: Results of the Scientific-technical Conference in Kiyev on Problems of Projecting and Producing Geodetical Apparatus (Itogi Kiyevskoy nauchno-tekhnicheskoy konferentsii po voprosam proyektirovaniya i proizvodstva geodezicheskikh instrumentov)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"-yemka, 1959, Nr 1, pp 13-16 (USSR)

ABSTRACT: From March 20 to 24, 1958, a conference took place in Kiyev on the planning and producing of geodetical apparatus. Lectures were held by: representatives of the factories projecting and producing such apparatus; representatives of the institutes working at the improvement of these apparatus and releasing them for series production; representatives of the organizations using these apparatus. - It is stated that before World War II 6 different geodetical apparatus were produced, but in 1958 the number of them had increased to 28. They ensure all kinds of field work. It is pointed out that a number of these apparatus are not inferior to foreign products. A drawback of the Soviet apparatus is the insufficient

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quality of the telescope pictures in theodolites, leveling instruments, etc, whereas Karl Zeiss in Germany has attained remarkable success in this respect. A further drawback of the apparatus is the circumstance that the individual structural groups of the same are not interchangeable. The construction of the leveling instrument with an automatically adjusting line of sight has not yet attained the standard aoroad. No stability of temperature has been attained yet for the graduations of graduated circles, scales, etc. High-precision dividing engines are missing. Great success, however, has been reached in the field of high-precision levels. - The measures taken during recent years to improve the quality of geodetical apparatus are pointed out. - The prototypes of new apparatus the manufacture of which is projected are listed. - The resolutions of the Conference in Kiyev are summed up: 1) Establishment of a standard plan for developing the manufacture of geodetical apparatus; 2) Manufacture of theodolites and telescopic-sighting alidades with automatically adjusting alidades of the vertical circle, an optical range finder for a range up to 600 m with a relative error of 1 : 4,000,

manufacture of radio range finders for distances between 100 and 2,000 m with an accuracy of 1 : 25,000, and for 5 to 50 km with 1 : 400,000, manufacture of a leveling instrument for sighting on two boards simultaneously, manufacture of devices with a photoelectric sighting mechanism for the exact measurement of angles and devices for photographic registering. 3) Increase in quality of production. 4) Establishment of a new factory for geodetical apparatus and leveling staffs. 5) Establishment of a coordination center to manage the production of geodetical apparatus. 6) Increase in the exchange of experience and strengthening of relations among individual factories. 7) Increase in the technical information service of the TsNIIGAiK and the MIIGAiK in the field of manufacture of geodetical apparatus.

FREMD. G.M.; KAMENSKIY, A.S.

Upper Paleozoic stratovolcanoes in southern Dzungaria. Trudy lab. paleovulk. Kazakh. gos. un. no.56:157-166 '63.
(MIRA 16:6)

1. Laboratoriya paleovulkanologii Kazakhskogo gosudarstvennogo universiteta.
(Dzungaria—Volcanoes)

KAMENSKIY, A.V., red.; SOROKIN, P.V., red.; CHEREPANOV, V.A., red.; VERSHININ, T.I., red.izd-va; PASTUKHOV, M.A., tekhn. red.

[Twenty-fifth anniversary of the Kama Woodpulp and Paper Combine] Kamskii tsellyulozno-bumazhnyi kombinat; 25 let. Perm', Permskoe knizhnoe izd-vo, 1962. 119 p. (MIRA 16:4)

(Krasnokamsk--Woodpulp industry)

KAMENSKIY, A. V.

"Application of the Capacitive Index to the Synchronization of the APV System," Elek. Stants., No.2, 1948

KAMENSKIY, A. V.

AID P - 621

Subject : USSR/Aeronautics

Card 1/1 Pub. 27 - 25/35

Authors : Istratov, V. N., Kand. of Tech. Sci., and Kamenskiy, A. V., Eng.

Title : Differential protection of airplane D.C. generators (Review of Foreign Periodicals)

Periodical : Elektrichestvo, 8, 86, Ag 1954

Abstract : According to 3 USA sources, summarized by the authors, the increase of generated capacities and complication of airplane D.C. electric installations requires a constant improvement of protection of individual elements. Seven diagrams.

Institution : Not given

Submitted : No date

KAMENSKIY, A.V.

AID P - 1474

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 25/36

Authors : Istratov, V. N., Kand. of Tech. Sci., and Kamenskiy, A. V., Eng.

Title : Parallel operation of aircraft a-c generators

Periodical : Elektrichestvo, 2, 73, F 1955

Abstract : The authors summarize a group of 5 articles on the above subject from volume 72 of the AIEE Transactions, Part II; 1953, 3 diagrams, 5 American references, 1953-55.

Institution: None

Submitted : No date

ISTRATOV, V.N., kandidat tekhnicheskikh nauk; KAMENSKIY, A.V., inzhener.

Protection of aircraft electrical systems. Elektrichestvo no.2: 89-90 F '56. (MLRA 9:5)

(Airplanes--Electric equipment)

KAMENSKIY A.V.

ISTRATOV, V.N., kandidat tekhnicheskikh nauk; KAMENSKIY, A.V., inzhener.

Computing the resistance in aircraft three-phase current circuits.
Trudy MAI no.57:61-70 '56. (MLRA 9:10)

(Airplanes--Electric equipment) (Electric resistance)

KAMENSKIY, A.V., inzhener.

Calculation of conductor inductances by means of Maxwell's equations. Trudy MAI no.66:62-68 '56. (MLRA 9:11)
(Inductance)

INOZEMTSEV, S.P., kandidat tekhnicheskikh nauk; ISTRATOV V.N., kandidat tekhnicheskikh nauk; KAMENSKIY, A.V., inzhener.

Automatic frequency control of airplane a.c. generators operating in parallel. Trudy MAI no.66:69-73 '56. (MLRA 9:11)
(Electric generators)
(Airplanes--Electric equipment)

KAGENSKIY, A.V., inzhener.

Use of "summators" of three-phase current in relay protection systems. Trudy MAI no.66:74-80 '56. (MLRA 9:11)
(Electric filters) (Electric relays)

KAMENSKIY, A.V.

AUTHORS: Kamenskiy, A. V., Rakhmanov, V. F. 119-6-10/16

TITLE: Voltage-Control Relays With Semiconductor Elements (Rele napryazheniya na poluprovodnikovykh elementakh).

PERIODICAL: Priborostroyeniye, 1957, Nr 12, pp. 26-26 (USSR)

ABSTRACT: The semiconductor-diodes and -triodes recently worked out permit to produce a reliable small relay for voltage increase which corresponds to the requirements of the vibration-stability, which does not react to changes of position and acceleration and which possesses advantages over the mechanical and the electron-tube relays. Figure 1 shows the characteristic of a semiconductor-silicon-diode. In the point of break-through the inverse current suddenly increases and is only limited by the circuit-resistance which makes it possible to use the silicon-diode as sensitive indicator of the voltage level. The scheme of the new voltage-increasing relay with the use of semiconductor diodes and triodes is shown in figure 2 and then described in detail. Figure 3 shows the dependence of the voltage on the time in the case of the formation of excessive voltage. The voltage-increasing relay consists of 25 small component

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parts whose total weight does not exceed 400 g. The described relay has great advantages as compared to the mechanical relay, especially in electroinstallations of airplanes. There are 3 figures.

AVAILABLE: Library of Congress

KAMENSKIY, A.V., kand. tekhn. nauk; TER-ZAKHARYAN, V.G., inzh.

Calculating current assymetry at phase failures. Trudy MAI no.85: 89-98 '57. (MLRA 10:9)

(Electric currents)

KAMENSKIY, A.V.
P.4-5

1(1); 28(1) PHASE I BOOK EXPLOITATION SOV/3180

Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze

Elektricheskiye tsepi i elementi avtomaticheskikh ustroystv; sbornik statey. (Electric Circuits and Components of Automatic Systems; Collection of Articles) Leningrad, Sudpromgiz, 1958. 86 p. (Series: Its; Trudy, vyp. 102) Errata slip inserted. 5,100 copies printed.

Sponsoring Agency: U.S.S.R. Ministerstvo vysshego obrazovaniya.

Resp. Ed.: G.I. Atabekov; Ed. (Title page): G.I. Atabekov, Doctor of Technical Sciences, Professor; Ed. (Inside book): V.S. Chichkanova; Tech. Ed.: R.K. Tsal.

PURPOSE: This collection of articles is intended mainly for persons engaged in problems of electrical engineering and automation in aviation.

COVERAGE: The collection contains articles dealing with the analysis

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and design of components of automatic control systems and also with methods of calculating the parameters of the "two wires-frame" aircraft system. The articles are based on the work carried out in 1956 and 1957 by the staff of the Department of Theoretical Electrical Engineering of MAI. This work is characterized by two basic approaches: 1) theoretical and experimental investigation and development of methods of designing the components of automatic control systems and electrical systems of aircraft, 2) theoretical development of methods of calculating electric circuits. Most of the articles in this collection are a continuation of works published in two preceeding collections by the above Department (Trudy MAI, 1956, Nr 66 and 1957, Nr 85, Oborongiz). No personalities are mentioned. References follow most articles.

TABLE OF CONTENTS:

Foreword 4

Rakhmanov, V.F., Engineer. Comparison of Frequency Response Characteristics of Low-frequency Cascade Amplifiers With a Common Emitter and a Common Cathode 5

The author compares theoretically obtained amplitude- and phase-frequency characteristics of a cascade amplifier with common cathode and of a cascade amplifier with common emitter. He finds that these characteristics differ sharply for both types of cascade amplifiers and explains that this difference is caused by the fact that the coefficient (D) for the negative current feedback in the cathode circuit equals zero, while in the emitter circuit $D \gg 0$. The author also compares theoretically obtained curves with those obtained experimentally and finds them in complete qualitative agreement and satisfactory quantitative agreement.

Bibliography 19

Timofeyev, A.B., and V.G. Ter-Zakharyan, Candidates of Technical Sciences. Finding the Optimum Number of Turns of a Current Transformer 20

On the basis of some considerations concerning a simplified vector diagram of a current transformer, the authors obtain simple formulas which help to find with sufficient accuracy

the optimum number of turns when operating current and resistance of the relay are known..

Ter-Zakharyan, V.G. Candidate of Technical Sciences. Grapho-analytical Method of Investigating a "Current Transformer-Relay" System 24

The method suggested by the author may be employed in designing relay protection circuits for aircraft. According to the author, this method does not provide for an accurate quantitative accounting of all effects occurring in the system but makes possible a qualitative evaluation of the designed equipment and the efficient selection of parameters close to the optimal.

Bibliography 33

Kamenskiy, A.V. and V.G. Ter-Zakharyan, Candidates of Technical Sciences. Summators of Three-phase Current 34

The authors tabulate values of the proportionality factor as a function of the transformation ratio for various types of summators. In another table the authors present elementary

circuits of some summators with rectangular magnetic circuits and calculations of their sensitivity. They discuss the characteristic properties of several types of summators and present a method of testing them.

Istratov, V.N., Candidate of Technical Sciences. Electrical Parameters and Calculation of the Transverse Asymmetry of a Two-wire Three-phase Aircraft Electrical "Two-Wire-Frame" System 43
The author investigates the electrical parameters of an asymmetric circuit for various cases of transverse asymmetry and finds their symmetrical components for generator currents.

Bibliography 56

Kamenskiy, A.V., Candidate of Technical Sciences. Electrical Parameters of a "Two-Wire-Frame" System 57
The author presents methods of calculating the following parameters: wire resistance, average values of wire resistance per phase, self-impedances and mutual impedances of separate phases and circuits ("wire-aircraft skin"). He also

presents a method of finding resistances experimentally.

Bibliography 67

Kovzan, A.A., Engineer. Method of Electrical Calculation of Systems: "Two Wire-Aircraft Frame" 68
The author presents his method of calculation.

Bibliography 73

Kovzan, A.A., Engineer. Electrical Calculation of Systems: "Two Wire-Aircraft Frame" With Asymmetric Loads 74
The author outlines his method of calculation and presents a numerical example.

Bibliography 78

Istratov, V.N., Candidate of Technical Sciences. Some Conditions for Optimal Performance of Pulse Protection Against Short-circuits

8(3)

SOV/119-59-4-10/18

AUTHORS: Gutovskiy, M. V., Engineer, Kamenskiy, A. V., Engineer

TITLE: Determination of the Characteristic Constants of Airplane Wiring for Alternating Current (Opredeleniye elektricheskikh parametrov samoletnykh provodov peremennogo toka)

PERIODICAL: Priborostroyeniye, 1959, Nr 4, pp 20-21 (USSR)

ABSTRACT: An analytical determination of the characteristic constants of a.c. wiring is rendered difficult by the influence of the airplane fuselage upon the active and the reactive resistance of the a.c. wiring. It is most expedient to add corrections to the values of the active and reactive resistances, which were derived under the assumption of an ideally conducting fuselage. These corrections should be determined by experiments with model airplanes. Such measurements can be carried out according to a bridge method, or even more accurately, by a compensation method. This article treats of compensation measurements which are a means of determining accurately the characteristic constants of a.c. mains and tap lines in an airplane. The measuring instrument was fed from an airplane generator

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Determination of the Characteristic Constants of Airplane Wiring for Alternating Current

SGS-7,5 (voltage 120, frequency 400 cy) driven by an asynchronous motor. Ailerons with trims were taken as the structural element of the airplane. The wire under investigation had a length of 1 - 2 m, and its position with respect to the fuselage could be changed. The active and the reactive resistances of the wire were measured by comparing the voltage drop in the wire and in the metal fuselage of the airplane with the voltage drop at the control resistances. The authors carried out numerous measurements of the active and the reactive resistance of the airplane wires BPVL, both of single wires and of several (2 - 5) which were either connected in series or parallel. During these measurements the fuselage conducted a current or the neutral conductor was insulated. From the information gained by these experiments it can be readily seen that: 1) the active resistance r and the inductive resistance x of airplane wires is influenced by the type of fuselage, by the clearance between the wire and the fuselage and by the method of installation, either single, branched or

stranded. In the practical design of a.c. wiring in airplanes r and x must be computed according to the following formulas: $r = r_p + \Delta r$; $x = x_p + \Delta x$, where r_p and x_p denote the values of the active and the reactive resistances, respectively, of the wire computed under the assumption of an ideally conducting fuselage, and Δr and Δx the corrections to the active and reactive resistance, respectively, which are to be determined for each type of airplane according to the method discussed in this paper. There is 1 figure.

USPENSKAYA, N.V.; ISTRATOV, V.N., kand.tekhn.nauk; DMITRIYEV, S.N.; SUROV, M.G.; BOGATYREV, O.M.; KUPALYAN, S.D., kand.tekhn. nauk; KAMENSKIY, A.V.; KAMENSKIY, A.V.; TIMOFEYEV, A.B.; KHUKHRIKOV, S.S.; ANTONOVA, S.D., izdat.red.; ZUDAKIN, I.M., tekhn.red.

[Collection of problems pertaining to the theoretical ptinciples in electrical engineering] Sbornik zadach po teoreticheskim osnovam elektrotekhniki. Pod red. V.N.Istratova i S.D.Kupaliana. Moskva, Gos.izd-vo obor.promyshl., 1959. 124 p. (MIRA 13:1)

1. Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze. (Electricity--Problems, exercises, etc.)

30874
S/143/61/000/004/001/005
D223/D301

26.2190

AUTHORS: Gutovskiy, M.V., Engineer, and Kamenskiy, A.V., Candidate of Technical Sciences, Docent

TITLE: On calculating short-circuit currents of 3-phase electrical systems in aircraft

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetyka, no. 4, 1961, 12 - 17

TEXT: For the design of an installation of 400 Kc/s the a.c. network analyzer must be used. Preliminary graphical and analytical work is given. The system has a neutral isolator. The short circuit may affect 2 or 3 phases with equal likelihood. As line impedance is negligible, all generators may be replaced by one. Suggestions are given for the evaluating, by a simplified method, the main parameters: Generator voltage, wire resistance, skin effect and inductance. The s.c. currents are calculated by the method of symmetrical components for all possible cases: ABC 3 phases s.c., AB, BC, CA, 2 phases s.c. AO, BO, CO 1 phase s.c. The influence

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30874
S/143/61/000/004/001/005
On calculating short-circuit ... D223/D301

of the voltage regulator is discussed for Larionov's (3 phase) circuit and bridge methods. The appropriate formulae are given. The conclusions are: 1) Resistances of lines do not affect the magnitude of s.c. current. 2) Influence of load current may be neglected. 3) Stationary s.c. currents are not greater than 1.3 - 2 times the normal one. 4) Only the inductances of the generators and R, Z or X of lines (depending on cross section of wire) are taken into account. 5) The skin effect for 400 Kc/s is perceptible only in wires with cross sections greater than 20 mm^2. 6) The linearized characteristic of the unloaded generator and approximation of nonlinear elements are satisfactory for practical pruposes. 7) The low resistance of cabling allows design of s.c. currents, taking into account the voltage regulator for one generator. There are 8 figures and 2 tables.

ASSOCIATION: Moskovskiy ordena Lenina aviatsionnyy institutim. S. Ordzhanokidze (Moscow Order of Lenin Aviation Institute im. S. Ordzhonikidze)

SUBMITTED: January 29, 1961
Card 2/2

GUTOVSKIY, Mikhail Vasil'yevich; KORSHUNOV, Vladislav Fedorovich; ANDREYEV, V.V., kand. tekhn. nauk, retsenzent; KAMENSKIY, A.V., retsenzent; GRIGORASH, K.I., red.izd-va; ORESHKINA, V.I., tekhn. red.

[Manual on the calculation and design of aeronaticla electrical equipment components and systems] Posobie po proektirovaniiu i raschetu elementov i sistem aviatsionnogo elektrooborudovaniia. Pod red. IU.A.Popova. Moskva, Oborongiz. No.2. [Power electromagnets and contactors] Silovye elektromagnity i kontaktory. 1962. 164 p. (MIRA 15:7)

(Airplanes--Electric equipment)

KAMENSKIY, Andrey Vasil'yevich; KUPTSOV, Ivan Pavlovich; NIKOLAYEVA, T.D., red.; MURASHOVA, V.A., tekhn. red.

[Control and measuring system of the electric section of thermal electric power plants]Kontrol'no-izmeritel'naia sistema elektricheskoi chasti teplovykh elektrostantsii; lektsiia po kursu "Elektricheskaia chast' elektrostantsii i podstantsii" dlia studentov energeticheskogo fakul'teta spetsial'nosti "Elektricheskie stantsii, seti i sistemy." Moskva, Gos.izd-vo "Vysshaia shkola," 1961. 49 p. (MIRA 16:2)
(Electric power plants—Electric equipment)

GITIS, S.S.; KAMENSKIY, A.Ya.

Relationship between color and structure in Ianovskii reaction products. Dokl.AN SSSR 144 no.4:785-787 Je '62. (MIRA 15:5)

1. Novomoskovskiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza. Predstavleno akademikom A.N.Tereninym.
(Nitro compounds--Spectra)

VOSTROKNUTOV, Ye.; KAMENSKIY, B.; KRIVUNCHENKO, I.

Improving the quality of reconditioned tires. Avt. transp. 43 no.1:21-23 Ja '65. (MIRA 18:3)

SOV/138-58-6-7/25

AUTHORS: Vostrokmutov, Ye.G., and Kamenskiy, B.Z.

TITLE: Methods for Increasing the Life of Reconditioned Car Tires (Usloviya povysheniya khodimosti otremontirovannykh avtopokryshek)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 6, pp 25 - 29 (USSR)

ABSTRACT: Some conclusions and recommendations for improving the property of reconditioning materials, and for improving the technological processes for reconditioned tires, are given on the basis of recent investigations. The average wear of car tires reconditioned according to the NIIShP method is 25,000 - 30,000 km, but it is pointed out that the average wear of tires reconditioned in various plants only reaches 10,000 km. The properties of reconditioned tires depend on the composition of the reconditioning stock, and on the properties of the materials used for reconditioning. Results are tabulated for reconditioned tires (260 - 20) after reconditioning of the tread according to the NIIShP method (1956 - 57). Correct vulcanisation of the reconditioned tires is most important. Many reconditioning plants use 'Vitakep' vulcanisation chambers.

Card 1/3

Methods for Increasing the Life of Reconditioned Car Tires

but drawbacks of this method of vulcanisation are pointed out, and it is recommended that car tires of standard dimensions should be vulcanised in individual vulcanisation chambers. Physico-mechanical characteristics of re-conditioning materials tested in the NIIShP are compared with rubbers used in the U.S.A. and Czechoslovakia (Table 2). The tire factories supply various rubbers to the reconditioning plants which range from rubbers based on 100% NK to rubbers based on SKB with increased regenerate content. Various deficiencies in the standard (Gost) for reconditioning materials are pointed out. The authors recommend that the existing standard for reconditioning materials be revised, and that the period of storing of the reconditioning materials before use should be shortened considerably. The methods for reconditioning should take into account the required improved qualities of the materials. The bonding between the materials and the casing of the tire should be increased by using adhesives filled with carbon black. Polyvinyl chloride,

Methods for Increasing the Life of Reconditioned Car Tires

polyethylene, etc. and other plastics should be tested for use as new packing materials.

There are 3 tables, and 5 references (English)

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (The Research Institute of the Tire Industry)

1. Tires---Processing 2. Tires---Life expectancy

Card 3/3

S/138/60/000/006/003/008
A051/A029

AUTHORS: Koshelev, F.F., Fedyukina, L.P., Melamed, T.I., Kamenskiy, R.Z., Vostroknutov, Ye.G.

TITLE: On the Development of Self-Vulcanizing Materials for the Repair of Pneumatic Tires

PERIODICAL: Kauchuk i Rezina, 1960, No. 6, pp. 27 - 29.

TEXT: The recent development and application of self-vulcanizing materials in tire repair and the cold vulcanization method is pointed out. Due to the introduction of tubeless tires in the last few years, the interest in self-vulcanizing materials has grown, as well as research work in this field. The principles of production of Soviet self-vulcanizing rubbers, pastes and cements based on natural rubber and Soviet ingredients for use in tire repairs by the cold vulcanization method are outlined. The production of these materials began in 1959 by the MITKhT im. Lomonosov in cooperation with the NIIShP. These principles are also applicable to synthetic rubbers (butadiene-nitrile СКН-26 (SKN-26) and СКН-40 (SKN-40), carboxylic СКС-30-1 (SKS-30-1) rubbers, etc. Thus, the composition of a

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S/138/60/000/006/003/008
A051/A029

On the Development of Self-Vulcanizing Materials for the Repair of Pneumatic Tires

cement was developed for use in the cold repair of rubber articles with a sufficiently high adhesiveness and a satisfactory thermostability at 100°C. In order to avoid gelatination during the production and storage of the pastes and cements, two solutions of the cement and the paste were developed which are mixed together prior to their application. In order to find the most active ultra-accelerators of vulcanization at low temperatures, Zn, Pb, Al, Bi, Cd and Sb salts of dialkyldithiocarbamine acids were studied. It was found that the zinc salt has a higher level of vulcanization. Various epoxide resins were tested for the purpose of increasing the adhesiveness of the cements to vulcanized rubber and fabrics. It was established that the partial replacement of the epoxide resin with phenolformaldehyde increases the stability of the cement during storage. Gas channel carbon black and mineral fillers (colloidal silica УК-333 (UK-333) and УС-170 (US-170), powered silica gel, the silicates of calcium, zinc, etc.), were tested as fillers for increasing the mechanical resistance of the layers of the adhesive. Tests were performed on the tube and casing rubbers.

Card 2/3

S/138/60/000/006/003/008
A051/A029

On the Development of Self-Vulcanizing Materials for the Repair of Pneumatic Tires

It was established that liquid cement, which is part of the cement composition, can be applied independently during the joining of non-vulcanized articles of complex profile with subsequent vulcanization. The authors recommend these cements, pastes and rubber mixtures for the repair of tubes, casings, tubeless tires, belts, sleeves, various rubber footwear and the rubberizing of various chemical apparatus, as well as the cementing of leather to rubber and a number of other materials. There are 3 tables and 15 references: 6 Soviet, 7 English and 2 German.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova i nauchno-issledovatel'skiy institut shinnoy promyshlennosti, (The Moscow Institute of Fine Chemical Technology imeni M.V. Lomonosov and the Scientific Research Institute of the Tire Industry)

Card 3/3

S/138/59/000/012/006/006

AUTHORS: Vostroknutov, Ye. G., Smirnov, A. F., Kamenskiy, B. Z.

TITLE: An Instrument for the Control of Moisture in Automobile Tread Casings

PERIODICAL: Kauchuk i Rezina, 1959, No. 12, pp. 47-49

TEXT: The moisture of the tire casings, which impedes repair work, can be determined by the electrical resistance of the casing, which decreases with an increase in the moisture of the cord. The German patent No. 936480, 1955, the design of which is based on the above-mentioned principle is discussed. It has two steel needles attached to the handle, which act as the electrodes. These needles are introduced into the casing of the tread. The functioning principle is explained. The disadvantage of the instrument is the impossibility of a quantitative evaluation of the moisture content. The Kiyevskiy shinoremontnyy zavod (Kiyev Tire Repair Plant) developed a special method using the ordinary type megohmmeter (Ref. 3) for the quantitative determination of the relationship between the electrical resistance and the moisture of the casing. The tests showed that this method could be used for detecting tires in need of drying.

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S/138/59/000/012/006/006

An Instrument for the Control of Moisture in Automobile Tread Casings

Casings with a moisture content of 5% or more after vulcanization were shown to undergo lamination on the sides. The moisture-meter and the megohmmeter were used to determine why the lamination took place on the sides rather than in the crown of the casing. It was found that more moisture accumulated at the sides due to less heating of these parts during performance of the tire. The application of the moisture-meter and the megohmmeter showed that these instruments had also various disadvantages. The handle of the megohmmeter had to be turned manually during the measurements. Further investigations resulted in the development of a moisture-indicator for determining the moisture of the casings under repair. The instrument proved satisfactory in every respect. The principle of its design is given as being based on the change in the switch-on voltage of the neon bulbs depending on the value of the shunting resistance. The new instrument is used both for the quantitative and qualitative determination of the moisture content. Fig. 1 is the circuit diagram of the instrument, where three neon bulbs are seen to be connected. Fig. 3 is a diagram of the instrument with all its component parts. MH-6 (MN-6) neon bulbs are used. The average degree of accuracy of the instrument is 15-20%. The experimental instrument was tested at the Moskovskiy vulkanizatsionny zavod

Card 2/3

An Instrument for the Control of Moisture in Automobile Tread Casings

(Moscow Vulcanization Plant) and at the Kiyev Tire Repair Plant. As many as 45 casings of various sizes were tested and the results are given in the table. The casings with a high moisture content after vulcanization were laminated. The authors state that the principle of this instrument can be applied to designing similar instruments for moisture determination in other articles of materials, such as the ingredients of rubber mixtures, organic solvents or textiles. The circuit diagram can be changed accordingly in each case. For example, by using alternating resistance for shunting an instrument can be made with a continuous moisture-indicating scale and with only one bulb-indicator. There are 1 table, 3 figures and 4 references: 3 Soviet and 1 Polish.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific-Research Institute of the Tire Industry)

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S/138/60/000/008/002/015
A051/A029

AUTHORS: Shvartz, A.G.; Kamenskiy, B.Z.; Eytingon, I.I.

TITLE: The Vulcanization of Rubbers Using Synthetic Resins

PERIODICAL: Kauchuk i Rezina, 1960, No. 8, pp. 5 - 9

TEXT: Based on previously successful attempts at vulcanizing natural rubber with synthetic resins, such as those described in Refs. 1 - 13, the authors investigated the possibilities of using Soviet-produced resins for vulcanizing butyl rubber, natural rubber, СКС-30АМ (SKS-30AM) and СКН-26 (SKN-26), where the industrial resin 101 was chosen as the vulcanizing agent. The latter is the product of the alkaline condensation of n-tertiary butylphenol and formaldehyde. Amberol СТ -137 (ST-137), the condensation product of n-octylphenol and formaldehyde was taken as the second vulcanizing agent for comparative purposes. The practical application of the alkylphenolformaldehyde resins as vulcanizing agents of butadiene-nitrile rubber was introduced only recently and is described in the works of A.S. Novikov, I.A. Skub and K.F. Kaluzhenina (Works of the NIIRP, No. 3, Goskhimizdat 1956,). The improvement in the qualities of the vulcanizates obtained by using the resins in vulcanizing butyl rubbers is explained by the formation of transverse

Card 1/3

The Vulcanization of Rubbers Using Synthetic Resins

bonds of the -C-C- and -C-O-C- type, which are more resistant to thermomechanical action than the -C-S-C- and -C-S-C- bonds (Ref. 6). Data already available showed that rubber vulcanized with alkylphenolformaldehyde resins as a result of their high thermal stability of the transverse bonds formed do not exhibit a tendency to vulcanization reversion and changes in the values of the residual expansion in aging, neither in prolonged vulcanization periods nor at temperature increases. These latter qualities render the rubber applicable to manufacturing goods which maintain constant dimensions at high temperatures. The results of the authors' experiments using these resins showed that the alkylphenolformaldehyde resins of alkaline condensation could be used for vulcanizing various rubbers. The rubbers obtained by this vulcanization were found to be more resistant to thermomechanical action than those vulcanized with sulfur in the usual way. In using the resin 101 as the vulcanizing agent, chlorine compounds were applied as activators. Rubbers based on natural rubber oil butadiene-styrene (SKS-30AM) and butadiene-nitrile (SKN-26) rubbers, vulcanized with alkylphenolformaldehyde resins, were also found to have a higher aging resistance than those vulcanized with sulfur. Their dynamic properties do not drop and the stability of adhesion at the interface of doubled rubber increases. Finally, the latter rubber has more resistance to creeping than those vulcanized with sulfur. It was also concluded that the properties of

MALKINA, Kh.E.; VOSTROKNUTOV, Ye.G.; KAMENSKIY, B.Z.

Conference on tire recapping. Kauch. i rez. 20 no.10:54-57 O '61.
(MIRA 14:12)

(Tires, Rubber)

SHVARTS, A.G.; KAMENSKIY, B.Z.

Rubber vulcanization with phenol alkyl formaldehyde resins.
Kauch.i rez. 22 no.2:8-14 F '63. (MIRA 16:2)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Phenol condensation products)
(Vulcanization)

KOSHELEV, F.F.; KAMENSKIY, B.Z.; YURGENSON, M.P.; VOSTROKNUTOV, Ye.G.

Rubber patches for on-the-road repairing of tire tubes.
Kauch.i rez. 21 no.12:43-45 D '62. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Tires, Rubber--Repairing)

VOSTROKNUTOV, Ye.G.; KAMENSKIY, B.Z.

Basic results of the work conducted in the field of tire reclaiming and repairing, and trends in its furhter development. Kauch. i rez. 22 no.5:6-10 My '63. (MIRA 16:7)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Tires, Rubber--Repairing)

REZNIKOVSKIY M.M.; KAMENSKIY, B.Z.

Time dependence of the binding stength of the adhesion of rubbers.
Dokl. AN SSSR 155 no. 4:924-926 Ap '64. (MIRA 17:5)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
Predstavleno akademikom V.A.Karginym.

ACCESSION NR: AP4043973 S/0138/64/000/008/0035/0040

AUTHOR: Kamenskiy, B. Z., Vostroknutov, Ye. G., Reznikovskiy, M. M.

TITLE: Effect of the surface state and bonding conditions on the bond strength between vulcanized and unvulcanized rubbers

SOURCE: Kauchuk i rezina, no. 8, 1964, 35-40

TOPIC TAGS: rubber, vulcanization, aging, adhesion, bonding, bond strength, contact surface, rubber surface

ABSTRACT: The effect of aging of the vulcanizates on the bond strength between vulcanized and unvulcanized rubber mixtures from NK was studied before and after vulcanization of the bonded samples and with or without roughening of the vulcanized surface. The results shown in the Enclosure demonstrate the importance of mechanical surface treatment to remove the oxidized layer. Aging, on the other hand, had an unfavorable effect on the bond strength of vulcanized rubber. Pictures of surfaces processed by different methods are shown and their effect on the bond strength is evaluated. Since an increase in contact area increases the bond strength, the possibility of increasing the surface area by mechanical treatment is studied for different types of geometric relief. The concept of "order of roughening" is developed and it is shown that for each type of relief, the true

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ACCESSION NR: AP4043973

(geometrical) contact area can be determined by simple calculations using Maxwell's equation. The coefficients of increase in geometrical surface area are given for different models and formulas are developed for determining the coefficient of true contact area. This coefficient is a complicated function of time and normal load. Finally, the dependence of bond strength between vulcanized and unvulcanized rubbers on the amount of pressure (for 3 min.) and on bonding time (at 12 atm.) is plotted. The expression calculated for this relationship makes it possible to describe the experimental data approximately without using the theory of layer-to-layer molecular diffusion. Orig. art. has: 7 formulas and 6 figures.

ASSOCIATION: Nauchno issledovatel'skiy institut shinnoy prom*shlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: 00 ENCL: 01

SUB CODE: MT NO REF SOV: 007 OTHER: 000

Card 2/3

ACCESSION NR: AP4043973

ENCLOSURE: 01

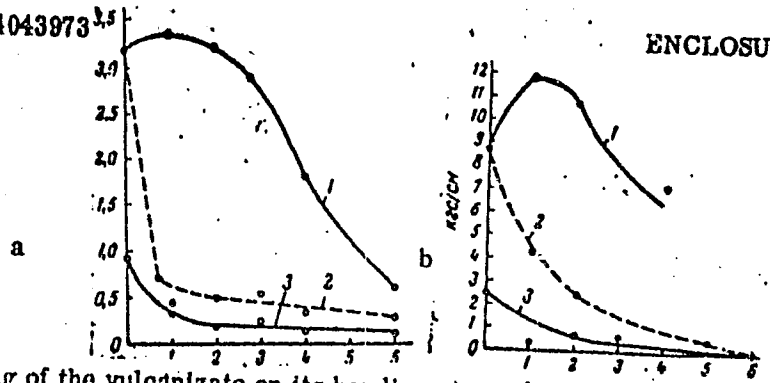

Fig. 1. Effect of aging of the vulcanizate on its bonding strength with an unvulcanized rubber mixture of NK, before (a) and after (b) vulcanization of the bonded samples: 1 - roughening of the vulcanizate surface after aging; 2 - roughening of the vulcanizate surface before aging; 3 - without roughening of the vulcanizate surface. Ordinate = bond strength in kg. s/cm; abscissa = aging time in days.

Card 3/3

VOSTROKNUTOV, Ye.G.; VOLKOVA, S.V.; KAMENSKIY, B.Z.

Statistical methods for establishing the guaranty norms for the service life of reconditioned tires. Kauch. i rez. 24 no.2:35-37 F '65. (MIRA 18:4)

1. Opytnyy zavod po vosstanovleniyu shin Nauchno-issledovatel'skogo instituta shinnoy promyshlennosti.

KANEVSKIY, F.

This is how the chemists of Yaroslavl work. Okhr. truda i sots. strakh. 3 no.8:31-34 Ag '60. (MIRA 13:9)

1. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye strakhovaniya," g.Yaroslavl'.
(Yaroslavl Province--Chemical industries--Hygienic aspects)

KAMENSKIY, F.

It is too early to end the case! Okhr. truda i sots. strakh. 4 no.5:34-36 My '61. (MIRA 14:5)
(Stupino District--Farm mechanization--Safety measures)

KAMENSKIY, F.

"SS in action." Edited by M.IU.Raginskii. Reviewed by Kamenskii.
Voen.-med. zhur. no.8:87-90 Ag '60. (MIRA 14:7)
(NATIONALSOZIALISTICHE DEUTSCHE ARBEITER-PARTEI--PARTY WORK)
(RAGINSKII, M.IU.)

KAMENSKIY, F.

Electronic "detectives." NTO 4 no.1:60-61 Ja '62. (MIRA 15:1)
(Electronic instruments)

KAMENSKIY, F.

Cancer, science and equipment. NTO 4 no.11:60-61 N '62.
(MIRA 16:1)

(Cancer research)

KAMENSKIY, G. ; KLIMENTOV, P. ; OVCHINIKOV, A.

Calculation of the flow of water into a shaft. Tr. from the Russian.

P. 129, (Rudy) Vol. 5, no. 4, Apr. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

KAMENSKIY, G.A.

Asymptotic behavior of solutions for linear differential equations of the second order with a retarding argument. Uch.zap.Mosk.un. 165:195-204 '54. (MLRA 8:2)
(Differential equations)

KAMENSKIY, G.A.

Existence of singular solutions for difference equations of the neutral type. Uch. zap. Mosk. un. no.181:83-89 '56. (MLRA 10:4)
(Difference equations)

KAMENSHIY, G.A., Cand Phys-Math Sci--(diss) "Certain problems of the general theory of differential equations with deviating argument. (Theorems of existence, uniqueness and the boundary problem)." Mos, 1958. 7 pp

(Min of Higher Education USSR. Mos Order of Lenin and of Labor Red Banner State U im M.V. Lomonosov), 110 copies (KL,26-58,107)

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16(1)

AUTHOR: Kamenskiy, G.A. SOV/155-58-2-12/47

TITLE: Boundary Value Problem for Nonlinear Equations With a Deviating Argument (Krayevaya zadacha dlya nelineynykh uravneniy s otklonyayushchimsya argumentom)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Piziko-matematicheskiye nauki, 1958, Nr 2, pp 60-66 (USSR)

ABSTRACT: Starting from the extremal problem of a functional the author obtains the equation

$$y''(x) = f(x,y(x),y'(x),\ldots,y(x-\Delta_i(x)),\ldots,y'(x-\Delta_i(x)),\ldots. \ldots,y''(x-\Delta_i(x)),\ldots,), \qquad \Delta_i(x) \geqslant 0.$$

The boundary conditions are given by a function $\varphi(x)$ two times continuously differentiable on the set $E_o = \bigcup_{i=1}^{n} E_o^i$, $E_o^i =$

$E\left\{x-\Delta_i(x),\ x-\Delta_i(x) \leq A,\ x \geqslant A\right\} \cup A$, as follows:

$y(x-\Delta_i(x)) = \varphi(x-\Delta_i(x))$, $y'(x-\Delta_i(x)) = \varphi(x-\Delta_i(x))$,

$y''(x-\Delta_i(x)) = \varphi''(x-\Delta_i(x))$ for $x-\Delta_i(x) \in E_o$ and $y(B) = y_1$

Card 1/2

AUTHOR: Kamenskiy, G.A.

TITLE: On the General Theory of Equations With Deviating Argument (K obshchey teorii uravneniy s otklonyayushchimsya argumentom)

20-120-4-3/67

PERIODICAL: Doklady Akademii nauk SSSR,1958,Vol 120,Nr 4,pp697-700(USSR)

ABSTRACT: The author considers differential equations

$$F\left[x,y(x),\ldots,y^{(m_0)}(x),\ y(x-\Delta_1(x)),\ldots,y^{(m_1)}(x-\Delta_1(x)),\ \ldots\ldots\ y(x-\Delta_n(x)),\ldots,y^{(m_n)}(x-\Delta_n(x))\right] = 0$$

under the assumption that they are solvable with respect to $y^{(m_0)}(x)$. Let $\mu = \max_{1\leqslant i\leqslant n}[m_i]$ and $\lambda = m_0 - \mu$. The author distinguishes the cases $\lambda > 0$ (lagging argument), $\lambda = 0$ (neutral type), $\lambda < 0$ (leading type). The author considers the existence, uniqueness and smoothness of the solutions as well as their continuous dependence on the initial conditions. He assumes the applicability of the method of successive in-

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On the General Theory of Equations With Deviating Argument 20-120-4-3/67

tegration. In the cases where the method is not applicable the author restricts himself to the consideration of the same questions for differential equations of neutral type. Altogether four long theorems are formulated.
There are 2 Soviet references.

PRESENTED: January 22, 1958, by I.G. Petrovskiy, Academician

SUBMITTED: January 17, 1958

1. Mathematics

Card 2/2

KAMENSKIY, G.A.

Equations with deviating arguments. Uch.zap.Mosk.un. no.186[a]: 205-209 '59. (MIRA 13:6)
(Differential equations)

ZVERKIN, A.M.; KAMENSKIY, G.A.; NORKIN, S.B.

Formulation of the initial problem for a differential equation with a leading argument. Usp. mat. nauk 15 no. 6:133-136 N-D '60. (MIRA 14:2)
(Differential equations--Graphic methods)

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B112/B104

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AUTHOR: Kamenskiy, G. A. (Moscow)

TITLE: Existence, unambiguity, and continuous dependence on the initial conditions of the solutions to systems of differential equations of the neutral type with deviating argument

PERIODICAL: Matematicheskiy sbornik, v. 55(97), no. 4, 1961, 363 - 378

TEXT: The following and two analogous theorems are demonstrated: If y'_A is a real root of the algebraic equation $z = f(A, y_A, y_A, \ldots, y_A, z, \ldots, z)$, if the function $f(u_1, u_2, \ldots, u_{2m+2})$ satisfies a Lipschitz condition with respect to $u_1, u_2, \ldots, u_{2m+2}$ with the constants $p, q, r_1, r_2, \ldots, r_m, s_1, s_2, \ldots, s_m$ in a certain neighborhood G of the point $(A, y_A, y_A, \ldots, y_A, y'_A, \ldots, y'_A)$, and if there is a ξ with $\mu^i_\xi = \inf_{A \leq \xi \leq x} D\Delta_i(x) > 0$ and $\max_{1 \leq i \leq m} s_i(1 - \mu^i_\xi) < 1/m$ $(i = 1, 2, \ldots, m)$, then there exists an unambiguous, continuously differentiable

Card 1/2

16.3400

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C111/C222

AUTHOR: Kamenskiy, G.A.

TITLE: A two-point boundary value problem for a non-linear second-order differential equation and some theorems on intermediate values

PERIODICAL: Akademiya nauk SSSR. Doklady, v.139, no.3, 1961, 541-543

TEXT: The author considers the boundary value problem

$$y'' = F(x, y, y') \quad , \tag{1}$$

$$y(x_0) = y_0 \quad , \quad y(x_1) = y_1 \quad , \tag{2}$$

where $F(x,y,v)$ is continuous in $D\{x_0 \leq x \leq x_1 \; , \; -\infty < y,v < +\infty\}$. Let $y(x, \alpha)$ be a solution of (1) with the initial conditions $y(x_0, \alpha) = y_0$, $y'(x_0, \alpha) = \alpha$; let $y(x,\beta)$ be a solution of (1) with the initial conditions $y(x_1,\beta) = y_1$, $y'(x_1,\beta) = \beta$. Let $x_2 = 1/2(x_0 + x_1)$, $\varphi(\alpha) = y(x_2,\alpha)$, $\gamma(\beta) = y(x_2,\beta)$, $f(\alpha,\beta) = y'(x_2,\alpha) - y'(x_2,\beta)$. It is said

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that $\varphi(\alpha)$ on $[\alpha_0, \alpha_1]$ satisfies the condition (E) if $\varphi(\alpha_c) < \varphi(\alpha) < \varphi(\alpha_1)$ (or $\varphi(\alpha_0) > \varphi(\alpha) > \varphi(\alpha_1)$) holds for $\alpha_0 < \alpha < \alpha_1$.

Theorem 1 :
1) Let the boundary value problem (1) - (2) be solvable for $x_1 - x_0 \leq d$ and arbitrary y_0 and y_1.
2) Let exist numbers t_0, t_1, α_0, α_1, β_0, β_1 so that $\varphi(\alpha_0) = \psi(\beta_0) = t_0$, $\varphi(\alpha_1) = \psi(\beta_1) = t_1$, for $\varphi(\alpha)$ and $\psi(\beta)$ the condition (E) is satis-fied on $[\alpha_0, \alpha_1]$ or $[\beta_0, \beta_1]$, and the values $f(\alpha_0, \beta_0)$ and $f(\alpha_1, \beta_1)$ have contrary signs.
Then for arbitrary y_0 and y_1 (1) - (2) is solvable for $x_1 - x_0 \leq 2d$.

Theorem 2 :
1) Let (1) - (2) be solvable for $x_1 - x_0 \leq d$ and arbitrary y_0 and y_1.
2) Let exist numbers t_0, t_1, α_0, α_1, β_0, β_1 so that $\varphi(\alpha_0) = \psi(\beta_0) =$

$= t_0$, $\varphi(\alpha_1) = \psi(\beta_1) = t_1$, the functions $\varphi(\alpha)$ and $\psi(\beta)$ are defined on $[\alpha_0, \alpha_1]$, $[\beta_0, \beta_1]$, and for arbitrary α', α'' of $[\alpha_0, \alpha_1]$, β', β'' of $[\beta_0, \beta_1]$ which satisfy the conditions $\varphi(\alpha') = \psi(\beta') = t_0$, $\varphi(\alpha'') = \psi(\beta'') = t_1$, the values $f(\alpha', \beta')$ and $f(\alpha'', \beta'')$ have contrary signs.
Then (1) - (2) is solvable for arbitrary y_0, y_1 and $x_1 - x_0 \leq 2d$.

Theorem 3 : Let $F(x,y,v)$, F_y and F_v continuous in D ; let exist constants $M>0$ and $K>0$ so that

$$|F_y(x,y,v)| < M \quad , \quad |F_v(x,y,v)| < K$$

holds in D ; let the condition a) or the two conditions c) and e) be satisfied :

a) there exists an $m>0$ so that $F_y \geq m$ in D .

c) there exists an $m>0$ so that $F_{vvv} \leq -m$ in D .

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e) there exists an $L>0$ so that $F(x,y,0)>0$ for $y>L$ and $F(x,y,0)<0$ for $y<-L$.

Then (1) - (2) is solvable for arbitrary x_0, x_1, y_0, y_1.

Theorem 4 : Let exist positive constants A and B so that $|F(x,y,v)| < Av^2 + B$ in D. Then there exists a $d>0$ so that (1) - (2) is solvable for $x_1 - x_0 \leq d$ for arbitrary y_0, y_1.

On $[\alpha_0, \alpha_1]$ and $[\beta_0, \beta_1]$ let be given $\varphi(\alpha)$ and $\psi(\beta)$. Let $G(\varphi,\psi)$ denote the set of the points of the rectangle $B\{\alpha_0 \leq \alpha \leq \alpha_1 ; \beta_0 \leq \beta \leq \beta_1\}$, where $\varphi(\alpha) = \psi(\beta)$.

Theorem 5 : Let $f(\alpha,\beta)$ be continuous on B, let $\varphi(\alpha)$ and $\psi(\beta)$ be continuous on $[\alpha_0, \alpha_1]$ and $[\beta_0, \beta_1]$, for $\varphi(\alpha)$ and $\psi(\beta)$ let the condition (E) be satisfied on these intervals, let $\varphi(\alpha_0) = \psi(\beta_0)$, $\varphi(\alpha_1) = \psi(\beta_1)$. Then there exists a component of $G(\varphi,\psi)$ which connects the points (α_0, β_0) and (α_1, β_1).

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A two-point boundary value problem ...

Theorem 6 : On B let be given the continuous function $f(\alpha,\beta)$; on $[\alpha_0, \alpha_1]$ and $[\beta_0, \beta_1]$ let be given continuous functions $\varphi(\alpha)$ and $\psi(\beta)$; let $\varphi(\alpha_0) = \psi(\beta_0) = t_0$, $\varphi(\alpha_1) = \psi(\beta_1) = t_1$. Then on B there exist points (ξ_0, η_0) and (ξ_1, η_1) so that $\varphi(\xi_0) = \psi(\eta_0) = t_0$, $\varphi(\xi_1) = \psi(\eta_1) = t_1$, and that in those points (α,β) of the rectangle $B_1 \{ \xi_0 \leq \alpha \leq \xi_1 , \eta_0 \leq \beta \leq \eta_1$, where $\varphi(\alpha) = \psi(\beta)$, the function $f(\alpha,\beta)$ assumes values lying between $f(\xi_0, \eta_0)$ and $f(\xi_1, \eta_1)$.

The author mentions S.N. Bernshteyn and Z.F. Surikova. There are 3 Soviet-bloc and 1 non-Soviet-bloc reference.

ASSOCIATION: Moskovskiy aviatsionnyy institut imeni Sergo Ordzhonikidze (Moscow Aviation Institute imeni Sergo Ordzhonikidze)

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Card 5/5

KAMENSKIY, G.A.

Boundary value problem for a nonlinear differential equation with deviating argument of the neutral type. Trudy. Sem. po teor. diff. urav. s otklon. arg. 1:47-51 '62. (MIRA 16:12)

ZVERKIN, A.M.; KAMENSKIY, G.A.; NORKIN, S.B.; EL'SGOL'TS, L.E.

Differential equations with deviating argument. Usp.mat.nauk. 17 no.2:77-164 Mr-Ap '62. (MIRA 15:12)
(Differential equations)

16.3500

S/039/63/060/001/001/001
B112/B102

AUTHOR: Kamenskiy, G. A. (Moscow)

TITLE: Intermediate-value theorems and boundary-value problem for a second-order nonlinear differential equation

PERIODICAL: Matematicheskiy sbornik, v. 60(102), no. 1, 1963, 3 - 16

TEXT: The author premises for his investigation of the boundary-value problem $y'' = F(x,y,y')$, (1) $y(x_0) = y_0$, $y(x_1) = y_1$ $(x_0 < x_1)$ (2) the general theorem that a function $z = f(x(t), y(t))$, for which $f(x(t_0), y(t_0)) = z_0$ and $f(x(t_1), y(t_1)) = z_1$, assumes in a certain sense all values between z_0 and z_1 over the interval $[t_0, t_1]$, if $f(x,y)$ is continuous, and $x(t)$ and $y(t)$ are not continuous but inverse of continuous functions. With the help of this theorem conditions for the solubility of the system (1), (2) are derived which are valid for $x_1 - x_0 \leq 2d$ and for arbitrary y_0, y_1, and in certain cases even for arbitrary x_0, x_1, y_0, y_1. There is 1 figure.

SUBMITTED: February 12, 1961

Card 1/1

ZVERKIN, A.M.; KAMENSKIY, G.A.; [illegible]

Differential equations with delay. Part 2. Trudy Sem. po teor. diff. urav. s otklon. arg. 2:3-49 '63.

[illegible]

KAMENSKIY, G.A.

Solutions to a second order linear homogeneous differential equation of the unstable type with delay. Trudy Sem. po teor. diff. urav. s otklon. arg. 2:82-93 '63. (MIRA 18:2)

KAMENSKIY, G.A.

Boundary value problem for a nonlinear differential equation of the first order with deviating argument of the neutral type. Trudy Sem. po teor. diff. urav. s otklon. arg. 3:39-46 '65. (MIRA 19:1)

ACC NR: AR6020781 SOURCE CODE: UR/0044/66/000/002/B091/B091

AUTHOR: Kamenskiy, G. A.

TITLE: Boundary problem for the nonlinear first order differential equation with varying argument of neutral type

SOURCE: Ref zh. Matem, Abs. 2B310

REF SOURCE: Sb. Tr. Seminara po teorii differents. uravn. s otklon. argumentom. T. 3. M., 1965, 39-46

TOPIC TAGS: nonlinear differential equation, first order differential equation, boundary value problem

ABSTRACT: For the case of equations of neutral type

$$y'(x)=f(x, y(x), \ldots, y(x-\Delta_1(x)), \ldots \quad (1)$$
$$\ldots, y'(x-\Delta_1(x))\ldots)$$

the author investigates the following boundary problem: Over the initial set E_A a family of initial functions $\phi_\alpha(x)$ depending on a single parameter is given, and one should choose from the family $\phi_\alpha(x)$ a function which determines the solution with a given value at the point B. The theorem concerning the continuous dependence on the solution on α and the possibility of a continuation of such solutions is first proved under certain limitations. Assuming that the principle of maximum is applicable for

Card 1/2 UDC: 517.949.2

KAMENSKIY, G. G.

KAMENSKIY, G. G. -- "The Hydrological and Soil-protecting Features of the Ural Mountain Forests in the Koyva River Basin." Min Higher Education USSR, Ural Forestry Engineering Institute, Sverdlovsk, 1956. (Dissertation for the Degree of Candidate of Agricultural Sciences)

SO: Knizhnaya Letopis' No 43, October 1956, Moscow

KAMENSKIY, G.G.

USSR/Soil Science - Soil Genesis and Geography. J-2

Abs Jaur : Ref Zhur - Biol., No 5, 1958, 20038

Author : Kamenskiy, G.G.
Inst :
Title : The Mountain Forest Soils of the Central Urals.

Orig Pub : Uch. zap. Ural'skogo un-ta, 1957, vyp. 15, 142-158

Abstract : The morphological features and conditions are considered of the deposit of mountain tundra fine coarsely structured skeleton soils, sod meadow finely skeletoned clay soils, sod mountain forest thin clay soils, the mountain forest brown soils on limestone, the mountain podzolic soils on clay and crystalline shales, sandstones and igneous rocks. The mountain sod-podzolic soils are found on slopes with average steepness in the complexes containing mountain podzols. At the run-offs of the ground water one finds mountain turf, podzolic glays, and at the depressions between mountains peat gleys, along the river valleys

Card 1/2

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Forest areas of the Kama River basin. Zap. Sverd. otd. VBO no.2:125-132 '62. (MIRA 16:8)

KAMENSKIY, G.G.

Use of the industrial wastes of the Urals for the fertilization of soil. Zap. Sverd. otd. VBO no.3:163-166 '64 (MIRA 18:2)

KAMENSKIY, I.I. [Kamens'kyi, I.I.]

On samples of two general sets and tests of hypotheses connected with them. Dop.AN URSR no.2:150-155 '60. (MIRA 13:6)

1. Khar'kovskiy gosudarstvennyy universitet. Predstavleno akademikom AN USSR B.V. Gnedenko [B.V.Hniedenko].
(Aggregates)

KAMENSKIY, I.N. DECEASED 1962/4
c1960

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MEDICINE

DANTSIN, M.I.; KONSHIN, N.P.; LEBEDEV, G.A.; ROZEN, O.B.; KAMENSKIY, I.V., nauchnyy red.; GUZMAN, M.A., red.izd-va; MEDVEDEV, L.Ya., tekhn.red.; SIROTINSKAYA, Ye.A., tekhn.red.

[Linoleum; production and use] Linoleum; proizvodstvo i primenenie. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 238 p. (MIRA 13:5)

(Linoleum)