

KLAUFEN, A.I., inzh., red.; SILAYEV, A.P., kand.tekhn.nauk, red.; MANAKIN,
S.V., red.isd-va; SHIGIN, S.T., tekhn.red.

[Improving the quality of steel castings; papers of an All-Union
conference] Uluchshenie kachestva stal'nykh otlivok; trudy Vsesoiuzno-
go soveshchaniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.
lit-ry, 1958. 214 p. (MIRA 11:4)

1. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlen-
nosti. Liteynaya sektsiya. Komitet stali.
(Steel castings)

SHKLENNIK, Ya.I.; BARANOV, A.V.; IVANOV, V.N.; KAZENNOV, S.A.; KURCHMAN,
B.S.; LYASHCHENKO, N.N.; MARULIDI, R.A.; MILITSIN, G.K.;
OZEROV, V.A.; SITNICHENKO, A.I.; TELIS, M.Ya.; KHENKIN, M.L.;
TITOV, V.D., kand.tekhn.nauk, retsensent; KLAUZEN, A.I., inzh.,
retsensent; MARKIZ, Yu.L., inzh., red.; TIKHANOV, A.Ya., tekhn.red.;
CHERNOVA, Z.I., tekhn.red.; EL'KIND, V.D., tekhn.red.

[Precision casting] It'e po vyplavliaemym modeliam. Leningrad,
1961. 455 p.

(Precision casting)

(MIRA 15:2)

KLAUZEN, A.I.

Results of the All-Union Conference on the Economy of Metal. Lit.
proisv. no.9:45-48 8 '62. (MIRA 15:11)
(Founding—Congresses)

I 12051-66 EBT(m)/BP(1)/T LJP(a) W/EM

ACC NR AP8011231 (A) SOURCE CODE: UR/0413/66/000/004/0073/0073

INVENTOR: Klausner, G. M.; Sedymova, L. P.; Murasev, M. V.

ORG: none

TITLE: Method of hardening "Arzamit" paste. Class 39, No. 179916

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki, no. 8, 1966

TOPIC TAGS: phenolformaldehyde, resin, nitric acid/
Arzamit paste

ABSTRACT: An Author Certificate has been issued for a method of hardening "Arzamit" paste with a base of modified phenolformaldehyde resins by gluing them at room temperature and followed by step-by-step heat treatment. To obtain a material resistant to the effect of oxidation agents such as 60% nitric acid, the heat treatment is carried out first at about 100C, then about 140C, and finally about 170C over a period of 1-3 hr. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 19Jan65/

Card 1/1 af

UDC: 678.632.028:66.046.4

S/844/62/000/000/095/129
D204/D307

AUTHORS: Dogadkin, B. A., Tarasova, Z. N., Kaplunov, N. Ya., Kozlov, V. T., Klauzen, I. A. and Matveyev, V. S.

TITLE: The interactions of sulfur with polymers under the action or irradiation

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 554-562

TEXT: The interactions of S with natural rubber, 1,4-cis-polybutadiene, butadiene-styrene and butyl rubber was studied, under irradiation from a Co^{60} source. S added on to natural rubber at 25 - 100°C and to butadiene-styrene rubber and polyethylene at 25°C, under argon, in amounts increasing with the dose (0 - 120 Mr), the rate of addition being faster at higher temperatures. At room temperature the amount of S added on is independent of the initial S-content in the starting mixture (1 - 10% by weight). The addition

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was promoted by C_2Cl_6 . The presence of S hindered the development of structurization, which was, however, promoted by raising the temperature from -80 to $100^\circ C$. Pure natural rubber developed cross-linking only up to $\sim 50^\circ C$, above which temperature the process was reversed; this reversal was not observed in the presence of 2% S, up to $100^\circ C$. The presence of 1 - 4% S in *CKC-30AM* (SKS-30AM) butadiene-styrene rubber led only to a slight reduction in the degree of cross-linking on irradiation. The loss of unsaturation and $-CH_2-$ groups on irradiation was studied (by ir spectroscopy) on natural rubber both in the presence and absence of S, and was found to be greater in the latter case. The S adds on in a form capable of isotopic exchange with elemental sulfur. Initially 70% of the added sulfur may be exchanged in natural and butadiene-styrene rubbers; this value falls with irradiation to a constant 40% at 50 - 120 Mr. Radiational vulcanizates of natural rubber exhibit increased tensile strength when the polymer contains 2% S, particularly at $100^\circ C$; in general, the strength increases with the dose of irradiation. The best strengths were obtained for a mixture of

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The interactions of ...

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natural rubber, S, and C₂O₁₆. The sulfur is believed to interact with the polymeric radicals⁶ (formed on irradiation by C-C fission) to form polysulfides which (a) lower the thermomechanical stability, and (b) prevent recombination reactions and reactions of radicals formed with C=O, thus hindering the development of branched structures. There are 12 figures.

ASSOCIATION: NII shinnoy promyshlennosti (NII of the Tire Industry)

Card 3/3

KLAUZEN, N.A. DOGADKIN, B.A.

Spectroscopic investigation of the cis-trans isomerization
of rubber in the process of its vulcanization. Zav.lab. 28
no.4:438-440 '62. (MIRA 15:5)

1. Nauchno issledovatel'skiy institut shinnoy promyshlennosti.
(Vulcanization) (Isomerization)
(Spectrum analysis)

KLAUZEN, L. L., ed.

Sovremennaiia tekhnologiia vyplavki stali dlia fazonnogo lit'ia / Modern
technology of steel smelting for use in form casting / . Moskva,
Mashgiz, 1953. 204 p.

SO: Monthly List of Russian Acquisitions, Vol. 7 No. 2 May 1954.

KLAUZEN, N.A.

7111
1877. Investigation of change of structure and properties of sodium butadiene rubber under the influence of molecular oxygen at vulcanization temperature. H. A. DOZARSKII, A. I. SMIRNOVA, and N. A. KLAUZEN. (Moscow Kharshkov, U.S.S.R.)
Paper presented at V. N. Ruzhichukov Conference, 1950. The structure-
-ing influence of oxygen during vulcanization is
studied by the infrared spectrum absorption
method. There are 3 references and the discussion
is reported. 22101-512

KM
MT

KLAUSEN, H., TOLSTUKHINA, F., DOBROMISLOVA, A., DOCADIN, B. A., and SALONOVA, E.

"Structure and properties of different butadiene polymers,"
a paper presented at the 9th Congress on the Chemistry and Physics of High
Polymers, 28 Jan-2 Feb 57, Moscow, Rubber Research Inst.

B-3,004,395

KLANKER, M.

PRIKHOT'KO, A F

24(7)

13

PHASE I BOOK EXPLOITATION NOV/1965

L'vov. University

Materialy i Vnesenyuznogo sovetskoye po spektroskopii. 1. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1977. 199 p. 4,000 copies printed. (Series: 118: Fizicheskaya khimiya, 779. 1/4/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Sazon, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Lavitskiy, G.S.; Academician (Resp. Ed., Deceased), Suprun, B.S., Doctor of Physical and Mathematical Sciences, Priblinskiy, I.L., Doctor of Physical and Mathematical Sciences, Fabelinskiy, V.A., Doctor of Physical and Mathematical Sciences, Korotkiy, V.S., Candidate of Technical Sciences, Raynskiy, S.M., Candidate of Physical and Mathematical Sciences, Kisevskiy, L.N., Candidate of Physical and Mathematical Sciences, Kiliyevskiy, V.S., Candidate of Physical and Mathematical Sciences, and Glazerman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Novak, I.I., and Ye. S. Salov'yev. Rotational Isomerism and the Effect of Temperature on the Infrared Absorption Spectra of Some Paraffins

119

Pestovskaya, A.P., I.A. Salimov, A.S. Kuz'minskiy, and V.M. Tutovskiy. Variation in Structure of Sodium Butadiene Rubber in the Process of Light Oxidation

123

Klausen, H.A., and D.A. Bogadkin. Infrared Spectroscopy Used to Study the Interaction of Rubber and Sulfur

128

Klovatova, N.A. Study of the Chemical Variations of Tetrafluoroethylene ("teflon") Under the Influence of Ionizing Radiation by Means of Infrared Spectroscopy

130

Mel'kon, E.V., and I. Ya. Fedukov. Spectroscopic Study of the Microstructure of Some Glass Polymers

133

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KLAUZEN, N.A., Cand Chem Sci -- (diss) "Spectrographic
study of the reaction of rubber with sulfur and oxygen."

Mos, 1958, 9 pp (Min of Higher Education USSR, Inst of
improvement of State Committee of the Council of Ministers USSR for Chemistry)
Fine Chem Technology, Sci Res Inst of ~~the~~ Tire Industry)

150 copies (KL, 32-58, 106)

69-20-3-2/24

AUTHORS: Dogadkin, B.A.; Tarasova, Z.N.; Kaplunov, M.Ya.; Karpov, V.L.;
Klauzen, N.A.

TITLE: The Structure and Properties of Rubbers Produced in Irradiation
Vulcanization (Struktura i svoystva rezin, poluchennykh pri
radiatsionnoy vulkanizatsii)

PERIODICAL: Kolloidnyy zhurnal, 1958, vol XX, Nr 3, pp 260-271 (USSR)

ABSTRACT: The vulcanization of rubber products by different nuclear
radiation sources has aroused great interest in the last
years. The irradiated rubber products usually show better
mechanical and chemical properties than those vulcanized by
present methods. Rubbers of the types SKS-30A, SKI, SKB,
and natural rubber were tested. The samples were irradiated
in an atomic reactor or by a Co^{60} source with a dose of
 10^7 - 10^8 r. The investigation of the infrared absorption
spectra has shown that in the 5.8μ field a broad absorption
band corresponds to the carbonyl groups of acids, aldehydes,
and ketones. In the 2.8μ field the absorption band of
the hydroxyl groups is shown. The density of the network
formed during irradiation vulcanization is determined by
the energy dose absorbed, by the type and the composition

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The Structure and Properties of Rubbers Produced in Irradiation Vulcanization

of the rubber, carbon black and antioxidant, as well as by the irradiation conditions. The number of cross bonds per 100 eV in an air medium is; 12 in extracted butadienstirol rubber; 4 in extracted natural rubber; 2.5 in technical SKS-30A. The structurization effect is increased by an increase in temperature, and decreased in the presence of an inhibitor (phenyl- β -naphthylamin). A correlation has been found between the relative rate of chemical stress relaxation and the density of the vulcanizate network which is due to the formation of C-C bonds during irradiation. The degree of crystallization in the rubber decreases when the irradiation doses are increased. At a dose of $20-30 \cdot 10^6$ r the crystallization is the same as in sulfur vulcanizates of similar network density. Compared with sulfur vulcanizates, the irradiation samples show an aging resistance 4-5 times higher at 130°C, a lower residual deformation, a low hysteresis, a high temperature resistance, etc. There are 12 graphs, 6 tables, and 8 references, 5 of which are Soviet and 3 English.

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69-20-3-2/24

The Structure and Properties of Rubbers Produced in Irradiation Vulcanization

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

SUBMITTED: October 30, 1957

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1. Rubber--Vulcanisation 2. Rubber--Properties 3. Rubber
--Radiation--Applications

KLAUZEN, N.A.

5(4)

207/69-11-4-13/22

AUTHORS: Bogdanin, S.A., Krivonoz, I.I., Pol'shteyn, N.I., Farnswey Z.S.,
Gur'yanova, Ye. A., Lin Yang Ch'ih, Klenov, S.A. and Ievanov,
S.A.

TITLE: Vulcanization of Rubber in the Presence of Aminoethyl Derivatives of 2-Mercaptobenzothiazole

PERIODICAL: Kolloidny Zhurnal, 1959, Vol XII, No 4, pp 427-433 (USSR)

ABSTRACT: The authors synthesized a number of compounds, condensation products of 2-mercaptobenzothiazole and formaldehyde with various amines, to test them as accelerators of vulcanization in mixtures of synthetic and natural rubbers. According to the data of spectral analysis, the chemical structure of these 2-mercaptobenzothiazole derivatives is characterized by the presence of a -CH₂-N- group. The experiments proved that aminoethyl derivatives of 2-mercaptobenzothiazole are effective accelerators of the vulcanization process. Figure 3 (graph) shows the vulcanizing activity of these derivatives in comparison with

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the effect of sulfonamide accelerators. It was further found that vulcanization of rubber mixtures with aminoethyl derivatives is characterized by higher rates in the initial period as compared with vulcanization of mixtures containing sulfonamide accelerators. In comparison with the latter, aminoethyl derivatives enter into isotopic exchange with di-2-benzothiazolyl disulfide at lower temperatures (graphs 6 and 7). Aminoethyl derivatives of 2-mercaptobenzothiazole do not exert an independent structuring (vulcanizing) effect on rubber (table 3). In this respect they differ from the sulfonamide compounds. There are 7 graphs, 3 tables and 7 Soviet references.

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

SUBMITTED: 23 December, 1958
Card 2/2

DOGADKIN, B.A.; BYTINGON, I.I.; FEL'DSHTEYN, M.S.; TARASOVA, Z.N.;
TUR'YANOVA, Ye.N.; LIN'YAN. TSIN'; KLAUZEN, N.A.; PEVZNER, D.M.

Vulcanisation of rubber in the presence of aminomethyl derivatives
of 2-mercaptobenzothiazole as accelerators. Koll.shur. 21 no.4:
427-435 J1-Ag '59. (MIRA 13:8)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti,
Moskva.

(Vulcanization)

(Benzothiazole)

86295

S/190/60/002/008/007/017
B004/B054

15.9120

2209, 1403, 1138 only

11.2210

AUTHORS:

Tarasova, Z. N., Kaplunov, M. Ya., Kozlov, V. T.,
Klauzen, N. A., Dogadkin, B. A.

TITLE:

Interaction of Sulfur With Natural Rubber Under the Action
of Ionizing Radiation

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 8,
pp. 1201-1206

TEXT: The authors study the problem of production of radiation-resisting rubbers, the conditions for a common vulcanization of irradiated and sulfurated rubbers, and the modification of rubbers treated with radiation. The present paper gives the first informative results of investigation of the effect of radiation by Co^{60} on rubber in the presence of sulfur. A considerable sulfur addition occurred at 25°C , and was accelerated by an increase in the radiation dose and temperature, particularly by addition of hexane chloro ethane. In thermal vulcanization, the admixture of chloro derivatives showed no effect on sulfur addition. The presence of sulfur delays the structuration as compared with rubber without sulfur admixture.

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Interaction of Sulfur With Natural Rubber Under S/190/60/002/008/007/017
the Action of Ionizing Radiation B004/B054

But structuration increases also here between -80°C and $+100^{\circ}\text{C}$ with increasing temperature. Pure rubber showed at 50°C a reversion of the structuration process, which was not observed in the presence of sulfur in the temperature range investigated. A study of the infrared spectra in argon of irradiated rubbers with and without sulfur showed a decrease in intensity of the 840 cm^{-1} band due to a reduced degree of nonsaturation. This effect was more intense in the presence of sulfur. The decrease in intensity of the 2940 and 1450 cm^{-1} bands due to a reduced number of CH_2 groups or ring formation was, however, more intense in the presence of sulfur. An investigation of the sulfur exchange at 120°C in irradiated rubber tagged with radioactive sulfur, carried out by a method described in Ref. 7, showed that about 40% of sulfur is exchangeable. This amount does not depend on the radiation dose (up to 100 megaröntgens). The high degree of exchangeability is ascribed to a formation of polysulfide groups. Sulfurous rubbers with addition of hexachloro ethane showed, on irradiation with 20 megaröntgens, maximum values of tensile strength (about 130 kg/cm^2) and of elongation. When irradiating pure rubber, a maximum (about 100 kg/cm^2) is only attained at 50-70 megaröntgens. Sulfurous irradiated vulcanizates showed a faster stress relaxation than irradiated vulcanizates free from

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sulfur. The authors assume that sulfur addition leads to a more homogeneous and regular structure since secondary reactions causing chain ramification are inhibited. There are 7 figures and 7 references: 3 Soviet, 3 US, and 1 British.

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

SUBMITTED: March 24, 1960

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23765

S/190/61/003/006/008/019
B110/B216

11.2210

AUTHORS: Drosdovskiy, V. F., Shokhin, I. A., Klauser, N. A.TITLE: Decomposition of butyl rubber and its vulcanizates under
the influence of Co^{60} γ -radiation

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 6, 1961, 852-860

TEXT: In the absence of oxygen, butyl rubber and its vulcanizates decompose under the influence of ionizing radiation (Co^{60} γ -radiation) similarly to polyisobutylene. The present study deals with the decomposition of butyl rubber and its filled sulfuric and unfilled sulfur-free vulcanizates under the action of Co^{60} γ -radiation in presence and absence of oxygen, the influence of radical acceptors on this process and the plastic-elastic and physicochemical properties of the radiation regenerate. Irradiation was performed at 25°C in air and in vacuo in flat ampoules (150-14-1 mm) by a method described by the last-mentioned author (Ref. 8: Kolloidn. zh., 20, 260, 1958). Composition and properties of the vulcanizates studied are listed in Table 1. Sulfuric vulcanized rubber was swelled in solutions containing 0.238 mole/l phenyl β -naphthylamine and m-dinitro

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Decomposition of butyl rubber and its...

benzene, 0.238 and 0.12 mole/l butylphenyl disulfide, 0.17 mole/l tri-chloro-phenyl disulfide and 0.12 mole/l tetramethylthiuram disulfide. The sulfur-free vulcanizate was swelled in benzene containing 0.134 mole/l butylphenyl disulfide. Decomposition was determined by measurement of the relative viscosity change in 0.5 % benzene solutions. Infrared spectra₆ in the 10-13 μ range were taken before and after irradiation with $50 \cdot 10^6$ r in air and in vacuo. After irradiation, the authors carried out osmotic and viscosimetric molecular weight measurements, and determined the modulus at 300 and 500 % elongation, the break resistance, relative elongation, and the swelling₆ maximum in m-xylene and chloroform extract. After irradiation with $20 \cdot 10^6$ r, the sulfuric vulcanized rubber, with and without butylphenyl disulfide, was extracted with acetone and analyzed quantitatively for bound sulfur. The quality of the regenerate was tested by means of Co^{60} γ -radiation, after swelling, and its plastic-elastic properties by rolling for 2 min each in refining and mixing rolls. The value of η_{spec}/c decreases during irradiation of benzenic rubber solutions in air and in vacuo (Fig. 1). Irradiation with $20 \cdot 10^6$ r reduces the viscosimetric molecular weight, calculated according to Fox (Ref. 10: T. G. Fox, P. J. Flory: J. Phys. Coll. Chem., 53, 197, 1949), from

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Decomposition of butyl rubber and its...

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264,000 to 41,000. In practice, the decomposition of butyl rubber does not differ from that in oxygen. Irradiation of unfilled sulfuric and sulfur-free vulcanizates with 10 , 15 , and $20 \cdot 10^6$ r lowers their break resistance and somewhat increases their relative elongation. The sulfur-free vulcanizate is decomposed more rapidly than the sulfuric vulcanizate. Irradiation of filled vulcanizates leads to a lower modulus, break resistance and slightly lower relative elongation. The swelling maximum in m-xylene and chloroform extract increases. The property changes during radiation of the sulfur-free vulcanizate are very rapid. Butylphenyl disulfide had a greater influence on the decomposition of the sulfuric vulcanizate than on that of the sulfur-free vulcanizate. The presence of oxygen affects all the properties of the filled sulfuric vulcanizate more than the vacuum. In the presence of 0.238 mole/l sulfide, the sulfur content of sulfuric vulcanizate irradiated with $20 \cdot 10^6$ r increased by 0.35% relative to vulcanizate irradiated in the absence of sulfide. A regenerate with good plastic-elastic and physicomachanical properties was obtained from vulcanizate swelled in a solution containing 0.238 mole/l sulfide and irradiated with $25 \cdot 10^6$ and $49 \cdot 10^6$ r. In practice, oxygen does not accelerate decomposition, but only affects the chemical character

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Decomposition of butyl rubber and its...

of the decomposition products. Owing to formation of vinylidene groups, $RR'C=CH_2$, the infrared spectrum exhibited a band at 11.27μ . The decomposition mechanism of butyl rubber by ionizing radiation resembles that of polyisobutylene. Sulfur-free vulcanizates decompose faster than sulfuric vulcanizates, and unfilled vulcanizates much more rapidly than filled ones. The presence of free-radical acceptors (e.g. disulfides) accelerates the decomposition of filled vulcanizates. The increased content of bound sulfur shows that addition of sulfur atoms to irradiated vulcanizate takes place. The sulfide reacts more effectively with radicals possessing free electrons at the sulfur atoms instead of the carbon atoms. Oxygen has a slight influence on the decomposition of sulfuric vulcanizates by γ -radiation. Decreased formation of branched structures in the presence of disulfide (free-radical acceptor) is assumed to be the cause of the difference in the physicochemical properties, at equal plastic-elastic properties, of regenerates subjected to varying radiation doses. Irradiations were performed by V. T. Kozlov, coworker at the physics and chemical laboratory of the NIIShP, in the K-18000 (K-18000) apparatus of the Institute imeni Karpov. M. A. Arkhangel'skaya carried out the osmotic molecular weight determinations. There are 7 figures, 3 tables,

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Decomposition of butyl rubber and its...

and 10 references: 2 Soviet-bloc and 8 non-Soviet-bloc. The three references to English-language publications read as follows: Ref. 4: R. Harrington, Nucleonics 14, No 9, 70, 1956. Ref. 5: R. L. Johnson, H. E. Adams, M. Barzan, Rubber World, 137, 73, 83, 90, 1957. Ref. 6: R. Harrington, Rubber Age, 83, 472, 1958.

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

SUBMITTED: July 28, 1960

Table 1: Composition and properties of unfilled and filled butyl rubber vulcanizates. 1) composition and properties of the vulcanizates; 2) sulfuric vulcanizates; 3) sulfur-free vulcanizates; 4) unfilled; 5) filled; 6) butyl rubber; 7) stack soot; 8) furnace soot; 9) zinc oxide; 10) petrolatum; 11) stearic acid; 12) tetramethylthiuram disulfide; 13) mercapto benzothiazole; 14) p-quinone dioxime; 15) dibenzothiazole disulfide; 16) sulfur; 17) vulcanization at 151°C, min; 18) modulus at 500 % elongation, kg/cm²; 19) break resistance, kg/cm²; 20) relative elongation, %; 21) swelling maximum in m-xylene, %; 22) swelling maximum in benzene, %.
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DROZDOVSKIY, V.F.; SHOKHIN, I.A.; KLAUZEN, N.A.

Co^{60} gamma rays induced degradation of butyl rubber and its vulcanizates. Vysokom.sped. 3 no.6:852-860 Je '61. (MIRA 14:6)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Butyl rubber) (Gamma rays)

TARASOVA, Z. N.; KAPLUNOV, M. Ia.; KOZLOV, T. V.; KLAUZEN, N. A.; DOGADKIN, B.A.

Interaction of sulphur and natural rubber under ionizing radiation.
Chem prum 11 no.11:601-604 N '61.

1. Vyskumny ustav prumyslu pneumatik, Moskva.

35674
S/032/62/028/004/005/026
B101/B113

15.90°

AUTHORS: Klauzen, N. A. and Dogadkin, B. A.

TITLE: Spectroscopic study of cis-trans-isomerization of rubber during vulcanization

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 4, 1962, 438-440

TEXT: The authors studied the change in infra-red spectra during vulcanization of natural rubber (I), polybutadiene rubber (SKD) (II) containing 80% cis-configurations, and polybutadiene rubber (SKBM) (III) containing 65% trans-configurations. Vulcanization was conducted at

143°C with sulfur in the presence of diphenyl guanidine. Results obtained for I: Already after 40 min heating (when only 2-2.5% sulfur was added), the intensity of the 840 cm^{-1} and 1130 cm^{-1} bands decreased, and a new 965 cm^{-1} band became visible, the intensity of which increased with increasing amount of bound sulfur. At the same time, the intensity of the 1640 cm^{-1}

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band increased, which is characteristic of the stretching vibrations of C atoms in trans-substituted ethylene groups. This suggests migration of the double bond from $R_1R_2C=CHR_3$ groups with formation of $R_1CH=CHR_2$ groups.

Vulcanization of II caused a decrease of the 730 cm^{-1} band and an increase in intensity of the 965 cm^{-1} band. It was calculated that only 25-30% of the double bonds of cis-configurations was converted to trans-configurations. No new bands were observed in III which contained trans-configurations only. These results indicate that the migration of double bonds and the conversion to trans-configuration are characteristic of the vulcanization of rubbers of very different types. Thus, the physicochemical properties of vulcanizates do not only depend on the type and density of the network but also on what part of the double bonds is converted from cis- to trans-configuration. The present paper was read at the Conference on Spectroscopy, Cor'kiy, July 5-12, 1961. There are 3 figures and 5 non-Soviet references. The four most recent references to English-language publications read as follows: H. E. Rallsback, J. E. Haws, C. R. Wilder. Rub. World, 142, no.2, 67 (1960); P. J. Linnig, J. E. Stewart. J. Res. Nat. Bur. Stand., 60,

Card 2/3

TARASOVA, Z. N.; DOGAIKIN, B. A.; LYKIN, A. S.; KAPLUNOV, M. Ya.; KHOZAK, V. K.;
KOZLOV, V. T.; SOBOLEV, V. S.; KLAUZEN, N. A.

"Struktura i svoystva vulkanizatorov, poluchennykh kombinirovannym deystviem
sery i ioniziruyushchikh izlucheniy."

report submitted for 35th Intl Cong, Industrial Chemistry, Warsaw, 15-19
Sep 64.

Nauchno-issledovat'skiy institut shinnoy promyshlennosti, Moscow.

KLAUZEN, N.A.; SEMENOVA, L.P.; SLOVOKHOTOVA, N.A., red.

[Atlas of the infrared spectra of rubbers and of some ingredients of rubber compounds] Atlas infrakrasnykh spektrov kauchukov i nekotorykh ingredientov rezinovykh smesei. Moskva, Khimiia, 1965. 127 p. (MIRA 18:9)

CHMIELOWA, Maria; KLAUZINSKI, Romuald

Functional megacolon with involuntary defecation. *Pediat. Pol.*
40 no.8:865-867 Ag '65.

1. Z II Kliniki Pediatricznej AM w Poznaniu (Kierownik: prof. dr.
med. O. Szozepeki).

Z/011/62/019/001/003/017
E073/E136

AUTHOR: Klauzová, V.

TITLE: Automatic computer Ural

PERIODICAL: Chemie a chemická technologie. Přehled technické a
hospodářské literatury, v.19, no.1, 1962, 21,
abstract Ch 62-292. (Chem. Stroj. Stav. přístř.
Techn., no.11/12, 1960.)

TEXT: Information for a wider range of readers on the
essential problems relating to the computer Ural and the
possibilities of its application. The basis of optimum and
modern computing methods in the chemical industry is close
co-operation between the specialized technical groups and the
computer-programmers. ✓

[Abstractor's note: Complete translation.]

Card 1/1

06367-01 ENI(d)/FSS-2 OD

ACC NR: AT6015365

SOURCE CODE: UR/0000/65/000/000/0111/0119

AUTHOR: Karachentseva, N. Ya.; Frantsuzova, K. D.; Klavanskaya, F. G.

ORG: none

TITLE: The use of communications channels for data transmission

SOURCE: AN BSSR. Institut tekhnicheskoy kibernetiki. Vychislitel'naya tekhnika (Com-
puter engineering). Minsk, Nauka i tekhnika, 1965, 111-119

TOPIC TAGS: air communication, wire communication, pulse communication, radio communi-
cation, communication channel, communication coding, communication equipment, communi-
cation link, communication network, communication system, data transmission, transmis-
sion line

ABSTRACT: The authors describe various communication channels for data transmission in
the Soviet Union and discuss their reliability. The development of a large network of
information processing and computing centers in the Soviet Union has led to the utili-
zation of existing and new communication channels for the transmission of digital data.
The reliability requirements for such transmission are much more stringent than for the
transmission of verbal data since the digital numerical information is not naturally
redundant. The following communication links are used at present: municipal automatic
telephone networks, automatic teletype networks, semi-automatic and automatic inter-
city telephone networks, voice frequency-carrier telegraph links, and supersonic

Card 1/2

L 06367-67

ACC NR: AT6015365

telegraphy. An increase in transmission speed can be achieved either through the use of parallel telegraph-channels or through telephone communication links which have a greater bandwidth. When audio-carrier telegraph is used, the speed of transmission is comparable to the speed of information recording on a punched tape or cards. The information received in this manner is first recorded on an intermediate medium (punched or magnetic tape) and then fed into the computer at a much higher speed. Various transmission channels were evaluated for their reliability using standard test information blocks consisting of 1000 to 2000 digits in the International Code No. 2 and various combinations of correcting codes "2 out of 5" and "3 out of 5". The average errors for various communication modes were as follows: voice frequency carrier telegraph (underground cable)-1 in 16,000; voice frequency carrier telegraph (overhead line)-1 in 14,600; supersonic telegraph (overhead line)-1 in 10,000. The authors include the tables of the test results for the individual communication lines, as well as the calculations of statistical error probabilities. Orig. art. has: 4 figures and 3 tables.

SUB CODE: 17/ SUBM DATE: 15Dec65/ ORIG REF: 000/ OTH REF: 000

Card 2/2 *12h*

KLAVANSKAYA, P.O.; UZHANSKAYA, S.M.

The VOHPD-59 equipment for transmission of selective ringing on high-frequency channels. *Biul. tekhn.-ekon. inform.* no.10:66-68 '59.

(MIRA 13:3)

(Railroads--Signaling)

KLAVDIN, Boris Vasil'yevich; MEL'NIKOVA, Zh.M., red.

[Irrigation technique] Tekhnika orosheniia. Moskva, Izd-vo
"Znanie," 1964. 31 p. (Novoe v zhizni, nauke, tekhnike.
IV Seria: Tekhnika, no.7) (MIRA 17:5)

KLAVDIN, B. SALIMOV, Ye.

Millions are within reach. Znan.-sila 37 no.6:1-3 Je '62.
(MIRA 15:9)
(Technological innovations)

KLAVDIN, B., inzh.

Soil plus electricity. IUn. nat. no. 4:4-5 p '63. (MIRA 16:7)

(Electricity in agriculture)
(Whale oil)

KLAVDIYENKO, I. K.
SPEKTROV, L.A.; KLAVDIYENKO, I.K.; POGULYAYEVA, A.I.

Effect of some substances contained in the assay on the intensity
of molybdenum, indium and thallium spectral lines. Izv. AN SSSR
Ser. fis. 19 no.1:122-123 Ja-F '55. (MLBA 8'9)

1. Kirgizskiy gosudarstvennyy universitet
Spectrum analysis: (Spectrometer)

Klavdiyenko, I. K.

USSR/Analytical Chemistry - General Questions

G-1

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4692

Author : Spektorov, L.A., Klavdiyenko, I.K., Pozulyayeva, A.I.

Inst : Academy of Sciences USSR

Title : Correction to the Paper: "Effect of Some Substances Present in the Sample on Intensity of the Lines of Molybdenum, Indium and Thallium".

Orig Pub : Izv. AN SSSR, ser. fiz., 1956, 20, No 3, 377; RZhKhim, 1956, 19534.

Abstract : In the paper and abstract (5-th line from beginning) in lieu of "Alkali metals increase the intensity of Mo lines, other elements decrease it. Lines of In and Tl are also intensified by K, Na and Li, while other metals do not alter their intensity"; there should be: "Alkali metals increase the absolute intensity of the lines of Mo, Sn and Tl. Addition of K and Na causes practically no change in the intensity of analytical lines of In".

Card 1/1

- 18 -

~~APPROVED FOR~~ RELEASE: 06/19/2000

CIA-RDP86-00513R000723010005-

Semiautomatic production line for processing window sashes.

Sbor.vnedr.rats.pred. v les. i meb.prom. no.2:22-24 '59.

(MIRA 13:8)

1. Dubrovskiy domostroitel'nyy kombinat.

(Windows)

(Woodworking machinery)

KLAVEROV, M.I., inshener.

Some shortcomings of the FO-22 gas relay. Elek.sta. 24 no.8:56-57 Ag '53.
(MIRA 6:8)
(Electric relays)

KLAYDIN, B.

"Use of electronic in the Bureau for procurement and sales."
Znan. sila 38 no.9:47 8 '63. (MIRA 16:12)

KLAVDIN, B.

Inventors give to the earth. Znan.-sila 38 no.4:32-33
Ap '63. (MIRA 16:8)

L 38955-66 EWT(m)/EWT(1) WW
ACC NR: AT6018517 (N) SOURCE CODE: UR/3186/65/000/140/0026/0030

AUTHOR: Klaven, A.B.

ORG: none

TITLE: Laboratory investigation of the structure of the bottom layer

SOURCE: Leningrad. Gosudarstvennyy gidrologicheskiy institut. Trudy, no. 120, 1965.
Issledovaniya usloviykh protsessov, 25-30

TOPIC TAGS: fluid flow, uniform flow, flow kinetics, flow analysis, underwater photography,
photographic processing, *HYDROLOGY*

ABSTRACT: The author describes experiments carried out at the Channel Laboratory of GEB GGI (Ruslovaya laboratoriya GEB GGI) in 1963 to elicit the kinematic structure of the bottom layer of an open flow with a smooth bottom. The experiments were carried out in a flume with an undeformed smooth bottom under steady, uniform flow conditions. Flows within Reynolds numbers from 300 to 3000 and Froude numbers from 0.1 to 0.5 were used in the experiment. The following quantities were measured for each flow condition: inclination of the bottom, inclination of the free surface, working depth (depth of flow in the middle of the experimental section), and water temperature. The experimental section, 1 m long, was situated in the middle of the flume which ensured a minimal effect of the inflow and overflow

Card 1/2

L 38955-66

ACC NR: AT6016517

of the water from the flume. By measuring the length of streaks left on photographic film by particles moving in the flow and by knowing the exposure time, the author calculates the value of the instantaneous velocities. The velocity field of the flow was photographed at a rate of about 150 frame/sec at an exposure time from 0.0074 to 0.0094 sec. The camera, together with a shutter, was installed on a carriage which moved on rails along the flume at a constant speed. The material obtained by photographing the velocity field by a traveling camera yields a visual representation of channel turbulence and can be useful when developing theoretical schemes of turbulence. This experimental method must be perfected in order to analyze the complex internal structure of vortex formations elicited by traveling photography. Orig. art. has: 2 figures.

SUB CODE: 08, 20, 14/ SUBM DATE: 00/ ORIG REF: 002

Card 2/2

KIAVIN, N.

For those who are preparing for a flight. Grazhd. av. 22 no.8:
4-5 Ag '65. (MIRA 18:8)

1. Spetsial'nyy korrespondent zhurnala "Grazhdanskaya aviatsiya".

AUTHOR: Klavin, N. SOV/ 84-58-3-32/52
TITLE: New Developments on an Old Route (Novoye na staroy trasse)
PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 3, pp 24-27 (USSR)
ABSTRACT: The article, written mostly in story form, relates impressions of the author on a flight on a Tu-104a airliner from Moscow to Khabarovsk and back. The author reviews all the progress made in flight equipment, flight density, ground equipment and airfields, feeder services, communications and navigation equipment, as well as the construction work along the longest domestic air artery. The description is general in character. Four photographs accompany the text.

1. Aviation--Development

Card 1/1

SOV/84-58-4-23/48

AUTHOR: Klavin, N.

TITLE: Classes Are Going On (Idut zanyatiya)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 4, p 26 (USSR)

ABSTRACT: The article reports on current activities in the Training Unit of the Ukrainian Territorial Administration of the GVP. During a period of 4 to 6 weeks, various specialists, like pilots, flight mechanics, radio operators, navigators are prepared for use as crew members in different types of aircraft, like the Il-14, An-2, Mi-1 and the Ka-15. In the main, the author is concerned with the preparatory training of crews for the An-10 turboprop airliner, which is expected to arrive in the unit in the near future. Some items of maintenance equipment have already been received. The necessary training aids, manuals, etc. are still missing. Local Territorial Administrations and certain Directorates of the Main Administration are criticized for lagging in providing the necessary conditions for a timely understanding of the new flying equipment. A photograph showing the wing flaps of the An-10 accompanies the article.

Card 1/1

1. Aviation personnel--Training

KLAVIN, N.; MARKOV, A.; IVANOV, A.I.; LESHUKOV, Yu.

For spring-summer navigation. Grazhd. av. 19 no.5:4-5 My '62.
(MIRA 18:6)

1. Spetsial'nyy korrespondent zhurnala "Grazhdanskaya aviatsiya"
(for K'avin). 2. Glavnyy inzh. Khabarovskikh lineynykh ekspluata-
tsionno-remontnykh masterskikh (for Markov). 3. Nachal'nik Mga-
danskogo aeroporta (for Ivanov). 4. Komandir Yuzhno-Sakhalinskogo
aviatsionnogo podrazdeleniya (for Leshukov).

KLAVIN, N.

Search, findings, losses. Grazhd. av. 21 no.10:6-7 0 '64.
(MIRA 18:3)
1. Spetsial'nyy korrespondent zhurnala "Grazhdanskaya aviatsiya."

32(1)

SOV/84-59-10-38/53

AUTHOR:

Klavin, N.

TITLE:

New Routes for the An-10

PERIODICAL:

Grazhdanskaya aviatsiya, 1959, Nr 10, p 27 (USSR)

ABSTRACT:

As of September 1959, An-10 airliners were put into service on the air route Moscow-Stalino-Moscow. The 1,100-km long trip takes only 1 hour 40 minutes. En route from Moscow to Stalino, the An-10 carries not only passengers but also 5-6 tons of mail and newspapers. The author notes that Vnukovo and Stalino airports failed to provide sufficient loads for the first trips, and the An-10 flew underloaded. Stewardess Lida Kolesnik and aircraft captain Viktor Fedorovich Semenov are mentioned in the text. There is 1 photograph.

Card 1/1

KLAVIN, N.

Reflexions at a dispatcher's desk. Grazhd. av. no.3:29-30 Mr '61.
(MIRA 14:3)
(Novosibirsk—Airports)

KLAVIN, N.; GRIGOR'YEV, G.; MEKHED, V.

Millionaires take council. Grashd.av. 20 no.2:18-24 F '63. (MIRA 16:3)
(Air pilots) (Aeronautics, Commercial)

KLAVIN, N.

Moscow - Sochi. Grazhd. av. 19 no.314 Mr '62. (MIRA 15:5)
(Moscow--Airlines)

KLAVIN, N. (Tashkent)

← The main conclusion. Grashd.av. 18 no.10:2-4 0 '61.

(MIRA 15:5)

(Aeronautics, Commercial)

KLAVIN, N.

Search, findings, losses. Grazhd. av. 21 no.9:6-7 S '64.

(MIRA 17:10)

1. Uzbekskoye territorial'noye upravleniye Aeroflota; spetsial'nyy
korrespondent zhurnala "Grazhdanskaya aviatsiya".

KLAVINA, G.

Development of the exhibits of pine and pine-spruce forests at the
Section of Local Flora of the Botanical Garden of the Academy of
Sciences of the Latvian S.S.R. Izv. AN Latv.SSR no.9:76-82 '63.
(MIRA 16:12)

1. Latvijas PSR Zinatnu akademijas Botaniskais darsis.

BERTSE, Visbul [Berce, Visbulis]; KLAVIDA, L., red.; JEGERS, A. [Jegers, A.], red.; SPORANE, V., tekhn. red.

[An editorial staff on wheels; a reportage from the Far East] Redakcija uz riteniem; reportaza no Talamjiem Austrumiem. Riga, Latvijas Valsts izdevnieciba, 1961. 216 p. [In Latvian] (MIRA 14:12)
(Soviet Far East--Description and travel)

CEKULINA, A.; LASIS, A.; SKARDS, V.; TILAKS, S.; INTAITIS, E.;
KELPIS, E.; SALMANIS, A.; REINIKOVS, I.; KARKLINS, J.;
ABOLINS, J.; KULA, P.; TIMSANS, S.; JESPERANS, J.;
HESIS, R.; KLAVINS, E., eds.

[Overall mechanization of dairy farms] Piena lopu farmu
kompleksa mehanizacija. Riga, Latvijas Valsts izdev-
nieciba, 1964. 309 p. [In Latvian] (MIRA 18:7)

KLAVINS, J.; SPRIVULIS, Z., red.

[Improve the herd; Lenina Collective Farm of the Valmiera
Agricultural Collective and State Farm Administration as a
purebred cattle station] izkopsim ganampulku: Valmiera
kolhozu un padomju saimniecibu razosanas parvalde Lenina
kolhozsakirnes lopu nudzetava. Riga, Latvijas Valsts izd-iba,
1964. 21 p. [In Latvian] (MIRA 17:7)

GUTNIK, M.A.; BORISOV, L.F.; NOVIKOV, I.K.; SPASSKIY, N.N.; OVCHINNIKOV,
A.N.; STOLYAROV, A.B.; KLAVIR, A.V.; GALKINA, V.I.; SHALFYEYEV,
V.I.

Overall mechanization of decorative grinding and polishing operations. Prom. energ. 17 no.9:6-8 3 '62. (MIRA 15:8)
(Grinding machines)

KLAVKIN, I.M.

Dynamics of the functional state of the stomach in chronic gastritis and peptic ulcer under the effect of aprophen.

Sovet. med. 27 no.6:38-43 Je'63

(MIRA 17:2)

1. Iz kafedry terapii dlya usovershenstvovaniya vrachey (nachal'nik - prof. P.I.Shilov) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

KLAVS, Vladimir, ing. (Ljubljana, Zarnikova 6)

Directives for the further development of our machine and electrical industries with regard to the Five-Year Plan.
Tehnika Jug 17 no.4:699-701 Ap '62.

1. Pomocnik glavnog direktora za tehnicka pitanja Zavoda za automatizaciju, Ljubljana.

NAME II
KRZYSZTOPORSKI, S.; KLAWA, H.; TURCZYNSKI, T.

Antistin in obstetrics (with exception of abortions). Polski tygod.
lek. 5 no.41:1433-1435 9 Oct 50. (GLML 20:6)

1. Of the Clinic of Obstetrics and Female Diseases of the Wroclaw
Medical Academy (Head--Prof.S. Krzysstoporski,M.D.) and of the Insti-
tute of Medical Microbiology of Wroclaw Medical Academy (Head--Prof.
L.Hirsfeld,M.D.). Work done for the Research Center on the Pathol-
ogy of Pregnancy, Wroclaw.

HIRSZFELD, L.; KRZYSZTOPORSKI, S.; KLAWA, H.; TURCZYNSKI, T.; OSINSKA, M.;
STOCHOWA, K.; LIBERSKA, H.

Further studies on the action of antiallergic drugs on
pathological manifestations in pregnancy, with special
reference to habitual abortions. Polski, tygod. lek. 6
no.25-26:786-795 25 June 51. (CINL 21:1)

1. Of the Research Center for the Pathology of Pregnancy
of the Obstetric-Gynecological Clinic in Wroclaw and of
the Institute of Medical Microbiology.

Klawa, H.
HIRSZFELD, L.; KRZYSZTOPORSKI, S.; KLAWA, H.; TURCZYNSKI, T.

Conservative therapy and prevention of blood groups incompatibility.
Med. dozw. mikrob., Wars. 4 no. 3:339 1952. (OIML 23:3)

1. Summary of work progress presented at 11th Congress of Polish
Microbiologists held in Krakow May 1951. 2. Wroclaw.

KLAVE, Henryk

Cesarean section in Neugebauer Hospital during 1951-55.
Polski tygod. lek. 11 no. 30:1324-1326 23 July 56.

1. Z Miejskiego Szpitala Ginekologiczno-Położniczego im. L.
Neugebauera we Wrocławiu; dyrektor: dr. med. Henryk Klave
Wrocław, Miejski Szpital Ginek. -Położn., im. L. Neugebauera.
(CESAREAN SECTION, statistics,
hosp. report (Pol))

KLAWE, Henryk

Endoscopy of the small pelvis through the posterior vaginal vault.
Polski tygod. lek. 11 no.31:1385-1387 30 July 56.

1. Z Miejskiego Szpitala Ginekologiczno-Położniowego L. Neugebauera
we Wrocławiu; dyrektor: dr. med. Henryk Klawe. Wrocław, ul. Norwida
11.

(DOUGLAS POUCH,
endoscopy (Pol))

(ENDOSCOPY,
Douglas pouch (Pol))

KLAWA, Henryk

Immediate results after hysterectomy during 1952-1959. Polski
tygod.lek. 15 no.40:1529-1532 3 0 '60.

1. Ze Szpitala im. Neugebauera we Wrocławiu; dyrektor: dr med.
H.Klawe

(HYSTERECTOMY statist)

DOROBISZ, Tadeusz; JANIAKOWA, Alina; KLAWE, Henryk; MATCZUK, Walenty

On the problem of early diagnosis and therapy of acute afibrinogenemic syndrome in obstetrics. Ginek. Pol. 33 no.1:9-18 '62.

1. Ze Stacji Krwiodawstwa we Wroclawiu Dyrektor: doc. dr T. Dorobisz
Z III Kliniki Chorob Wewnętrznych AM we Wroclawiu Kierownik: prof. dr
E. Szczeklik Z Miejskiego Szpitala Ginekologiczno-Położniczego im.
L. Neugebauera we Wroclawiu Dyrektor: dr H. Klawe.

(AFIBRINOGENEMIA in pregn) (PREGNANCY compl)

KLAWE, Henryk

Maternal mortality in the Neugebauer obstetric hospital during the period of 1951-1961. Pol. tyg. lek. 17 no.32:1262-1265 6 Ag '62.

1. Ze Szpitala im. Neugebauera we Wroclawiu; dyrektor: dr med. H. Klawe.

(MATERNAL MORTALITY)

POLAND

KLAWE, Henryk, Dr. med., Director of Hospital of Gynecology
and Obstetrics (Szpital Ginekologiczny-Polozniczy) im. L.
Neugebauera in Wroclaw

"Damage to the Posterior Fornix of the Vagina."

Warsaw-Krakow, Przegląd Lekarski, Vol 19, Ser II, No 5, 22
May 63, pp 254-256

Abstract: The author reviews the literature on injury to
the posterior fornix of the vagina during and following inter-
course, its possible causes, contributing factors, and modes
of treatment, and also analyzes the cases observed at the
clinic. There are 18 references, of which about two (2)
each are Polish and German, and the other Western.

1/1

RUDOWSKI, Witold, prof. dr; KLAWE, Zdzislaw, dr

Transplantation of the heart in man. Problemy 20 no.11:696 '64.

KIAME, Zdzislaw

Surgical treatment of coronary vessel diseases. Polski tygod. lek.
13 no.43:1669-1674 27 Oct 58.
(CORONARY DISEASE, surg. (Pol))

WIECHNO, Wojciech; KLAWE, Zdzisław

Indications for section of sphincter of Oddi. Polski przegl.
chir. 33 no.7/9:981-983 '61.

1. Z Oddziału Chirurgicznego Szpitala Miejskiego Nr 7 w Warszawie
Ordynator: doc. dr W. Wiechn.
(BILE DUCTS surg)

FLAUNDAIN J.

"Communications Markers of the League of Nations: Principles in the Peace
Context", P. 3, (RADIO AMATOR, Vol. 1, No. 5, August 1953, Warsaw, Poland)

30: Monthly List of East European Accessions (REAI), LC, Vol. 4, No. 3,
March 1955, Uncl.

1. THE UNITED STATES OF AMERICA

"Television Reception of Great Range in Warsaw", *P. 4*, (Radio AMERICA, Vol. 2, No. 8, August 1963, Warsaw, Poland)

SC: Monthly List of East European Acquisitions (EAM), 16, 22, 7, 11, 2,
March 1955, Uncl.

DOBZYNSKI, Stanislaw, mgr inz.; Klawinski, Jozef, inz.

Thin-walled bearing sleeves for traction engines. Pt.1. Techn
motor 15 no.3:72-77 Mr '65.

KLAYBL, Karel [Kleibl, Karol]

Significance of tularemic epizootics in the spread of infections caused by *Trichophyton gypsum*. Vest. dermat. 1 vol. 37
no.7:32-35 J1'63 (MIRA 16:12)

1. Kozhnoye otdeleniye (sav. K.Klaybl) bol'nitsy v Skalits, Chexhoslevakiya.

KLAYCHKIN, A. L.

PA 2407107

USSR/Physics - Piezoelectric Ceramics
Polytropic Flow

Dec 52

"Letters to the Editor"

"Zhur Tekh Fiziki" Vol 22, No 12, pp 2061-2066

S. V. Romanenko: "Concerning A. L. Klaychkin's
article Polytropic Gas Flow" (ZhTF 21, 9, 1951).
T. N. Verbitskaya: "Concerning Piezoelectric Ce-
ramics."

2407107

KLAYMAN, R. P.

USSR / Pharmacology and Toxicology. Analgesics.

V-4

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 80541

Author : Klayman, R. P.

Inst : Not given

Title : Influence of Promedol on the Secretory Function of the Stomach During Treatment of Stomach Ulcers and Duodenal Ulcers

Orig Pub : Materialy po bor'be so zlokachestv. opukholyami. Ufa., 1958, vyp. 10, 41-44

Abstract : During treatment of 80 patients with ulcers by subcutaneous injections of a 1% solution of promedol, a tendency toward normalization of acidity was noted in patients with changed acidity of the stomach contents and even with achylia. Simultaneously, some decrease of stomach acidity was observed in the secretions of an empty stomach. Closure and decreased dimensions of the crater was combined in a

Card 1/2

- 2 -

SAYEV, G.K.; MARKOV, K.Iv.; KIAYH, S.B.; MONOV, A.P.

Phosphatase and dehydrogenase activity in sensitive and resistant to penicillin staphylococci. Antibiotiki 4 no.4:91-95 J1-Ag '59. (MIRA 12:11)

1. Kafedra biokhimii i kafedra mikrobiologii pri Vysshem meditsinskom institute v Sofii, Bolgariya.

(PENICILLIN pharmacol)

(STAPHYLOCOCCUS metab)

(PHOSPHATASES metab)

(DEHYDROGENASES metab)

KLAYN, V. [Klyne, W.]; KIRYUSHKINA, A.A. [translator]

Optical rotatory dispersion. Usp.khim. 31 no.3:385-396 Mr '62.
(Optical rotation) (Dispersion) (MIRA 15:3)

KLAYSHEVICH, G. I.: Master Had Sci (diss) -- "Protein and protein fractions in the blood serum in rheumatism of children". Moscow, 1958. 16 pp (Min Health USSR, Central Inst for the Advanced Training of Physicians), 200 copies (KL, No 8, 1959, 138)

KLAYSHEVICH, G.I.

KLAYSHEVICH, G.I.

Dynamics of protein and protein fractions in the active phase of
rheumatic heart disease in children [with summary in English].
Pediatrics 36 no.1:68-76 Ja '58. (MIRA 11:2)

1. Is kafedry pediatrii TSentral'nogo instituta usovershenstvovaniya
vrachev (sav. - deyatel'nyy chlen AMN SSSR prof. G.N.Speranskiy)
na baze Detskoy bol'nitsy imeni F.N.Dzerzhinskogo (glavnyy vrach
A.N.Kudryashova)

(RHEUMATIC HEART DISEASE) (PROTEIN METABOLISM)

KLATSHVICH, G.I.

"Nocturnal enuresis" by V.A. Smirnov. Reviewed by G.I. Klatshovich.
Pediatrics 36 no.5:83-84 My '58 (MIRA 11:6)
(URINE--INCONTINENCE)
(Smirnov, V.A.)

KLAY SHEVICH, G.I.

ВОПРОСЫ МЕДИЦИНЫ Sec 7 Vol 13/7 Pediatrics July 60

1518. PROTEIN FRACTIONS OF THE BLOOD SERUM IN HEALTHY CHILDREN
ACCORDING TO DATA OF PAPER ELECTROPHORESIS (Russian text) -
Klaychevich G.I. - PEDIATRIYA 1960/7 (59-64) Tables 2

The results in 25 healthy children aged 4 to 14 yr. of age are reported after a detailed description is given of the method of examination (modified paper electrophoresis according to Holt and associates, with simplified colorimetric technique). The individual protein fractions are seen to fluctuate relatively widely. The relative albumin, with respect to the total protein (refractometric measurement), lies between 56.58 to 65.43% (average value 59.76%); α_1 -globulin 1.49 to 5% (average value 3.19%); α_2 -globulin 8.76 to 11.97% (average value 9.4%); β -globulin 8.98 to 14.57% (average value 11.82%); γ -globulin 11.75 to 19.48% (average value 15.3%). The albumin-globulin coefficient was 1.3 to 1.89 (average 1.47). The author started from the principle that after the 2nd to 4th year of life the individual protein fractions no longer differ much from each other with respect to the individual stages of life. It is pointed out that the albumin/globulin coefficient gives no indication of the mutual relation of the individual globulin fractions. Comparison of the present results with the results of other, foreign, authors shows large scale agreement of the values. Finally, a wider application of paper electrophoresis in paediatrics is recommended, since the indicated method requires only a small amount of blood from the fingers.

Hanseler - Regensburg (VII, 1)

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(RHEUMATIC FEVER)

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Formation of aortic valve insufficiency in rheumatic children.
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VASHENIN, M., nachal'nik (Kiyev); SOKHATSKIY, V., predsdatel' (Tashkent);
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3. Oblastnyy orgkomitet Vsesoyuznogo obshchestva sodeystviya aviatsii (for
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(Military education)

KLAZ, Il'ya Semenovich; DUDOVIK, P., red.; KALECHYTS, G., tekhn. red.

[Anatol' Shabuniasu, a locomotive engineer] Mashynist Anatol' Shabuniasu; narys. Minsk, Dziarsh.vyd-va BSSR. Red. masava-palit.lit-ry, 1961. 30 p. (MIRA 15:1)
(Locomotive engineers)

KLAZ, M. Yu.

AUTHOR: Klaz, M. Yu.

138-1-13/16

TITLE: Super Elastic Coupling (Periflex). (Superelasticheskaya mufta (Periflex).

PERIODICAL: Kauchuk i Rezina, 1958,¹⁷ Nr.1. pp. 39-40. (USSR).

ABSTRACT: This material is made by Klockner - Humbolt Dentz AG Köln. Descriptions of the method of making same, and its uses (source of translation not quoted) are given. This is a translation from German.

AVAILABLE. Library of Congress.

Card 1/1

AUTHOR: Klaz, M. Yu.

SOV/138 -58-4-5/13

TITLE: Pneumatic Bag Clutches, Their Characteristics and Application (Shinno-pnevmaticheskiye mufty, ikh osobennosti i primeneniye)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 4, pp 14-20 (USSR)

ABSTRACT: The pneumatic, or air bag clutch is particularly suitable for couplings transmitting high power, and finds application in drives for conveyors, cranes, mine hoists, rubber and paper rolls, and calenders and marine transmissions. They can also be used as brakes. In the USSR petroleum industry, these clutches have been used extensively on drilling rigs, and with considerable reduction in maintenance. Clutches on roll and calender drives, and on rubber mixers, at the Leningrad tyre factory have been converted to the air bag type, and have eliminated breakdowns and bearing and motor failure by virtue of the elastic nature of this type of coupling. Experience at this factory confirms the reliability of these clutches. Air bag clutches may be either expanding or contracting type. Fig.5 shows the former and Fig.3 the latter type. Card 1/8 A section of the air bag itself is shown in Fig.7. It is

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built up like a tyre with reinforcing cords within the rubber. The bag is attached to a flanged rim on the driven shaft by bolts going through the rim into tapped holes in inserts vulcanized into the periphery of the bag. The friction shoes are secured to the inner periphery of the bag. Fig.4 shows a variation where a thin steel strap is used to retain the friction shoes. One end of the strap is anchored to the flanged rim on the driven shaft, the other end is free. The normal gap between the shoes and the drum when the clutch is disengaged is 6-7 mm. With the contracting type of clutch, centrifugal force tends to decrease the pressure between the friction shoes and the drum. With the expanding type, centrifugal force augments this pressure and the clutch will remain in engagement until the speed of the driven shaft decreases sufficiently for the bag to contract to its uninflated shape. In the U.S.S.R. contracting type clutches are more generally used. Fig.6(a) shows a direct method of feeding air to the clutch through a packed gland. Fig.6(b) shows a relay method where air is admitted to the bag only while the control lever is held open. When the control is

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returned to the neutral position, the relay valve seals the inlet to the bag and then no air pressure is exerted upon the packed gland. Operation of the control valve in the opposite direction permits the bag to exhaust to atmosphere. It has not been found easy to make the relay system sufficiently tight to ensure reliable operation. Many clutches fitted originally with the relay system of air feed have been converted to direct air feed. The following advantages are listed for air bag clutches:

1. Possibility of remote control.
2. Smooth engagement and disengagement.
3. Ability to accept up to 3 mm axial displacement of the shaft.
4. Ability to limit maximum torque by regulation of air pressure.
5. Torsional vibrations are damped.
6. Isolation of noise transmitted through the drive.
7. Ability to accommodate misalignment (out of parallelism) of shafts to the extent of 2 mm in 1 meter length of shaft.

Card 3/8 8. Flexibility and reduction of mechanical shocks.

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9. Will operate satisfactorily in damp conditions.
10. Can be used as a brake.
11. Relatively low cost.

Drawbacks are:

1. Transmitted torque is reduced if the friction surfaces become greasy.
 2. The temperature range, throughout which the clutch will work satisfactorily, is lower than with metallic clutches.
 3. The relay type cannot be controlled as regards air pressure in the bag when shut off from the air line.
- Table I shows dimensions and details of standard clutches. The figures at the head of the vertical columns are, respectively, the diameter of the friction drum and the width of the friction shoes. The figure at the foot of the columns (not given in three cases) is the rated torque in kg metres. The clutches are rated for working temperatures from -30°C to 50°C . At 70°C the effective torque is not diminished but clutch life is limited. Rubber bags can be provided for temperatures down to -45°C . Formula (1) gives maximum torque. It incorporates

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coefficients β and γ for the relation between the internal diameter of the bag and the diameter of the friction drum, and for the relation between the width of the bag and the width of the friction shoes. The coefficient of friction f for the shoes is given as 0.25 to 0.35. The term within brackets is the sum of the internal pressure and the equivalent pressure due to centrifugal force. The latter takes a negative sign for contracting shoe clutches. The formula ignores the pressure required to deflect the bag - this amounts to 0.4 to 0.7 kg/cm². Working pressures for clutches are generally between 5 and 9 kg/cm². (70 - 130 psi). Rated torque takes into account fading through grease, temperature rise, and wear and is also factored to allow for torsional oscillations. Rated torque, as quoted in the table, is taken as maximum torque (as assessed by formula (1)) divided by 2.5 or 3. Formula (2) shows how the equivalent pressure, due to centrifugal force, is derived. Formula (3) gives an approximation for available torque and allows for centrifugal force, but not for other dynamic effects. Fig. 8 relates air pressure in the bag in kg/cm² (on the ordinate) to available torque in

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