

USSR/Human and Animal Physiology (Normal and Pathological).
Sense Organs. Vision.

T-11

Abs Jour : Ref Zhur - Biol., No 16, 1958, 75197

was not established. Anetropia is favorable ground for the development of strabismus, but its reason is included in factors which impair the reflex of binocular vision and is connected with the conditions of child development. With observance of proper regime for visual work in the children's home which were examined, impairments of binocular vision comprised 11%, and in school children who lived home - 37%. Prophylactic improvement for prevention of development of disorders of binocular vision is recommended to be carried out before 6 years of age, when the process of formation and strengthening of the reflex of binocular vision occurs. -- Y. M. Belostotskiy.

Card 2/2

- 96 -

DOBROMYSLOV, A.N.

BELOSTOTSKIY, Ye.M.

"Conditioned reflex therapy for concomitant strabismus" by A.N.
Dobromyslov. Reviewed by E.M. Belostotskii. Vest. oft. 70 no.1:60-62
Ja-F '57 (MIRA 10:5)

(CONDITIONED RESPONSE) (STRABISMUS) (DOBROMYSLOV, A.N.)

~~DOBROMYSLOV, A.N.~~

Origin and conditioned reflex treatment of concomitant strabismus.
Probl.fiziol.opt. 12:443-449 '58 (MIRA 11:6)

1. Kishinevskiy meditsinskiy institut.
(STRABISMUS)

DOBROMYSLOV, A.N.

Electroencephalography in disorders of binocular vision. Zdravookh-
ranenie 2 no.4:43-45 J1-Ag '59. (MIRA 14:6)

1. Iz kafedry glaznykh bolezney (zav. - zasluzhennyy deyatel' nauki
prof. I.N.Kurlov) i kafedry normal'noy fiziologii (zav. - prof.
A.A.Zubkov) Kishinevskogo meditsinskogo instituta.
(ELECTROENCEPHALOGRAPHY)
(EYE--DISEASES AND DEFECTS)

DOBROMYSLOV, A.N., dots.

Relation of therapeutic effectiveness in concomitant strabismus
to the child's age and to the time of appearance of strabismus
[with summary in English]. Vest.oft. 72 no.1:14-18 Ja-F '59.
(MIRA 12:2)

1. Glaznaya klinika (dir. - zasluzhennyi deyatel' nauki prof.
i.n. Kurlow) Kishinevskogo meditsinskogo instituta.
(STRABISUMUS, ther.
concomitant, eff. of child's age & time of appearance
of strabismus in effectiveness (Rus))

DOBROMYSLOV, A.

Professor B.K. Poliak; on his sixtheth birthday. Vest.oft. 72 no.5:
62 S-0 '59. (MIRA 13:3)

(BIOGRAPHIES)

DOBROMYSLOV, A.N., dotsent

Concomitant strabismus in adults and its pathogenesis. Oft.zhur.
15 no.2:59-60 '60. (MIRA 13:5)

1. Iz kliniki glansykh bolezney (direktor ZDN prof. I.N. Kurllov
[deceased]). (STRABISMUS)

DOBROMYSLOV, A. N., dotsent

Ophthalmological aid in the Democratic Republic of Vietnam. Vest. oft.
no.5:73-74 '61. (MIRA 14:12)

1. Klinika glaznykh bolezney Kishinevskogo meditsinskogo instituta.
(VIETNAM, NORTH—OPHTHALMOLOGY)

DOBROMYSLOV, A.N.

Experimental strabismus in monkeys. Fiziol. zhur. 47 no.10:1260-1266
0 '61. (MIRA 15:1)

1. From the Ophthalmologic Department of the Kishinev Medical Institute.
(STRABISMUS)

DOBROMYSLOVA, A. N.

Dissertation defended for the degree of Candidate of Philological Sciences
at the Institute of Slavic Studies

"History of Declension in the Russian Language."

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

DOBROMYSLOV, A.N., prof.; ZUBKOV, A.A., zasl. deyatel' nauki,
prof., red.; SYRTSOVA, S., red.

[Concomitant strabismus; experimental and clinical studies]
Sodruzhestvennoe kosoglazie; eksperimental'nye i kliniche-
skie issledovaniia. Kishinev, Kartia moldoveniaske, 1965.
227 p.
(MIRA 18:10)

ACC NR: AP6032622

(N)

SOURCE CODE: UR/0126/66/022/003/0424/0431

2

AUTHOR: Buynov, N. N.; Dobatkin, V. I.; Rakin, V. G.; Romanova, R. R.; Shashkov, O. D.; Dobromyslov, A. V.

ORG: Institute of Metal Physics, AN SSSR (Institut fiziki metallov, AN SSSR)

TITLE: Investigation of the structure of ATsM and V92 heat-treatable aluminum alloys

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 3, 1966, 424-431

TOPIC TAGS: metal aging, aluminum base alloy, aluminum zinc magnesium alloy, aluminum alloy aging, aluminum alloy structure/ATsM aluminum alloy, V92 aluminum alloy

ABSTRACT: Aging-induced structural changes and the kinetics of aging in aluminum-base alloys ATsM (4.72% zinc, 1.84% magnesium, 0.69% manganese, 0.35% zirconium, 0.03% titanium, and 0.5% copper) and V92 (3.34% zinc, 4.48% magnesium 0.8% manganese, and 0.005% beryllium) have been studied by means of electron microscopy and x-ray diffraction analysis. The aging kinetics were found to be the same in both alloys. The decomposition of solid solution begins with the formation of Guinier Preston zones with a high density of vacancies, which serve as nuclei for the precipitation of MgZn₂-phase and play an important part in the age hardening of the alloys. The temperature and duration of aging has little or no effect on the size of Guinier Preston zones, but a considerable effect on their composition. V92 alloy age hardens

Card 1/2

UDC: 546.3-19'621'47'46 : 548.0

ACC NR: AP6032622

more intensively than ATsM does owing to a higher total zinc and magnesium content of the former. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: 27Dec65/ ORIG REF: 008/ OTH REF: 007

Card 2/2

DOBROMYSLOV, B.Sh.

Attachments for chamfering and aligning small-diameter pipes.
Stroi. truboprov. 7 no.5:19-20 My '62. (MIRA 16:6)

(Pipe fitting)

DOBROMYSLOV, B.

Labour protection museum. Prem. keep. no. 10:57-58 0 '55.

(MLRA 9:4)

1. Zamestitel' nachal'nika otdela okhrany truda Vsekepre-
strakhsevyta.

(Safety museums)

DOBROMYSLOV, B.

Encouraging results. Prom. koop. 12 no. 7:36 J1 '58. (MIRA 11:8)

1. Zamestitel' nachal'nika otdela okhrany truda Rospromstrakhsoveta.
(Industrial safety)

DOBROMYSLOV, B. (g.Perovo)

Patrolmen of industrial hygiene. Okhr.truda i sots.strakh.
no.3:52-54 Mr '59. (MIRA 12:4)
(Moscow--Woodworking industries--Safety measures)

DOBROMYSLOV, B. (g. Ocher, Permskoy oblasti)

Shortage or bad management From.koop. 13 no.2:34 F '59.

(MIRA 12:4)

(Perm Province--Machinery industry--Equipment and supplies)

DOEROMYSLOV, B. (Moskva)

By a joint effort. Prom. koop. 13 no.7:34 JI '59.

(MIRA 12:10)

(Moscow--Cooperative societies--Industrial hygiene)

KIRYUSHCHENKO, A.; DOBROMYSLOV, B.

This is not the way to take care of industrial hygiene. Prom.koop.
14 no.9:4 S '60. (MIRA 13:9)

1. Zamestitel' predsedatelya pravleniya Rospromstrakhsoveta
(for Kiryushchenko). 2. Zamestitel' nauchal'nika otдела okhrany
truda Rospromstrakhsoveta (for Dobromyslov).
(Industrial hygiene)

DOBROMYSLOV, B. (g. Moskva)

Excellent working conditions. Mest.prom. i khud.promys. 2
no.5:15 My '61. (MIRA 14:5)
(Moscow--Industrial hygiene)

DOBROMYSLOV, I.I., inzh.

Large power rectifying unit for aluminum electrolysis. Elektra.
tekhnika 35 no.2:64 F '64. (NIRA 17:3)

DOBROMYSLOV, I.I.; TVERDIN, L.M.; ARUGLYANSKIY, I.M.

Scientific and technical seminar "Semiconductor power converters
and their use in present-day automated production processes."
Elektrichestvo no.5:91-93 My '65.

(MIRA 18:6)

L 11050-66

ACC NR: AP6004793

SOURCE CODE: UR/0105/65/000/005/0091/0093

AUTHOR: Dobromyslov, I. I.; Tverdin, L. M.; Kruglyanskiy, I. M.

ORG: none

TITLE: Scientific and technical seminar on semiconductor power converters and their application in modern automated industry

SOURCE: Elektrichestvo, no. 5, 1965, 91-93

TOPIC TAGS: electric engineering conference, electric power engineering, industrial automation, semiconductor device, automation equipment, rotary electric power converter

ABSTRACT: The article reports on the proceedings at the seminar held on 1-3 October 1964 at the VDNKh SSSR (Exposition of the Achievement of the National Economy USSR). Twenty-five reports were made by representatives of over ten scientific and industrial organizations in the electric power field. The opening remarks dealt with the progress and status of semiconductor techniques in power system applications and the prospects for the future. The next subject was the effect of physical phenomena accompanying various semiconductor manufacture techniques on the parameters of the circuit components (rectifiers). There followed several papers on power conversion, from one frequency to another, from single-phase to three-phase or to D.C., motor-generator systems, and rectifiers. A few papers were devoted to the application of thyristors to electric to electric drive systems for speed control of D.C. and A.C. asynchronous (induction) motors. Static converters and inverters were considered next and some

Card 1/2

UDC: 621.314.632

L 11050-66

ACC NR: AP6004793

papers were presented on various industrial applications of power conversion systems, e.g. in the chemical and metallurgical industry, in machine tool operation; and also on the application of pulse-time and pulse-width control methods. While the seminar was being conducted, the participants had an opportunity to see a special exhibition prepared by the VDNKh. A resolution recommending further development in the field of semiconductors for power drives was adopted at the conclusion of the seminar. [JPRS]

SUB CODE: 09, 13 / SUBM DATE: none

Cord 2/2

L 36068-66 EMT(1) WH

ACC NR. AR6017171

SOURCE CODE: UR/0058/65/000/012/A010/A010

AUTHOR: Koshkin, N. I., Dobromyslov, N. A. 45
B

TITLE: Measurement of ultrasonic-wave velocity and absorption
(laboratory study) 9M

SOURCE: Ref. zh. Fizika, Abs. 12A96

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 107-111

TOPIC TAGS: ultrasonic wave velocity, ultrasonic wave absorption,
ultrasonic wave propagation, ACOUSTIC EQUIPMENT 2

ABSTRACT: The device consists of a square-wave generator whose output is fed into an emitter to produce mechanical vibration of intrinsic frequency in the plate. The ultrasonic waves, having passed through the test medium are received by another plate and converted into electric pulses, which are then amplified and fed into an oscillograph. Individual components of the apparatus are described, and design equations are given in the original article. B.V. [Translation of abstract] [KP]

SUB CODE: 20/

SUBM DATE: none

Cord 1/1 vab

DOBROMYSLOV, N.S.

FRENKEL', I.M., kand. tekhn. nauk; MIRONOV, S.A., doktor tekhn. nauk, prof.; BARANOV, A.T., kand. tekhn. nauk; BUZHEVICH, G.A., kand. tekhn. nauk; MIKHAYLOV, K.V., kand. tekhn. nauk; MULIN, N.M., kand. tekhn. nauk; KHAYDUKOV, G.K., kand. tekhn. nauk; KORNEV, N.A., kand. tekhn. nauk; TESLER, P.A., kand. tekhn. nauk; BERDICHEVSKIY, G.I., kand. tekhn. nauk; VASIL'YEV, A.P., kand. tekhn. nauk; LYUDKOVSKIY, I.G., kand. tekhn. nauk; SVETOV, A.A., kand. tekhn. nauk; CHINENKOV, Yu.V., kand. tekhn. nauk; BELOBROVYY, K., inzh.; KLEVTSOV, V.A., inzh.; DOBROMYSLOV, N.S., arkh.; DESOV, A.Ye., doktor tekhn. nauk, prof.; LITVER, S.L., kand. tekhn. nauk; PISHCHIK, M.A., inzh.; SKLYAR, B L., inzh.; POPOV, A.P., kand. tekhn. nauk; NEKRASOV, K.D., doktor tekhn. nauk, prof.; MILOVANOV, A.F., kand. tekhn. nauk; TAL', K.E., kand. tekhn. nauk; KALATUROV, B.A., kand. tekhn. nauk; KARTASHOV, K.N., red.; MAKARICHEV, V.V., kand. tekhn. nauk, red.; YAKUSHEV, A.A., inzh., nauchnyy red.; BEGA, B.A., red. izd-va; NAUMOVA, G.D., tekhn. red.

[Reinforced concrete products; present state and prospects for development] Zhalezobetonnye konstruktsii; sostoianie i perspektivy razvitiia. Pod obshchei red. K.N.Kartashova i V.V.Makaricheva. Moskva, Gosstroizdat, 1962. 279 p.

(MIRA 15:8)

(Continued on next card)

FRENKEL', I.M. --- (continued) Card 2.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Kartashov). 3. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Mironov). 4. Gosudarstvennyy institut tipovogo proyektirovaniya i tekhnicheskikh issledovaniy (for Berdichevskiy, Vasil'yev, Lyudkovskiy, Svetov, Chinenkov, Belobrovyy, Klevtsov, Dobromyslov). 4. Vsesoyuznyy gosudarstvennyy projektno-konstruktorskiy institut (for Desov, Litver, Pishchik).

(Precast concrete)

DOBROMYSLOV, N.S., arkhitektor; OSTROVSKIY, M.Ye., arkhitektor.

New type of ventilating clerestory. Stroi.prom. 31 no.6:19-21 Je '53.
(Metallurgical plants--Heating and ventilation) (Roofs) (MIRA 6:7)

~~DOBROMYSLOV, N.S.~~

BAGUZOV, N.P., arkhitekt; ~~DOBROMYSLOV, N.S., arkhitekt~~; LUBNIN, A.I.,
inzhener.

Wall and floor design for basic steel works. Stroi.prom. 32 no.12:
17-21 D'54. (MIRA 8:3)

(Metallurgical plants)(Walls)(Floors)

DOBROMYSLOV, N.S.; OSTROVSKIY, M.Ye.; VAYNTRAUB, I.M.

The Giprota clerestory windows. Rats.i izobr.predl.v stroi. no.73:30-35 '54.
(MLRA 7:6)

(Factories--Lighting) (Windows)

KOSTYUKOVSKIY, M.G., kandidat tekhnicheskikh nauk; DOBROMYSLOV, N.S., arkhitekter;
USHAKOV, N.A., kandidat tekhnicheskikh nauk.

Unified construction parameters and dimensions for shop buildings of steel
plants. Strel.prom.34 no.7:27-30 J1 '56. (MIRA 9:9)

1.Giprotis (for Dobromyslov). 2. Gipromex (for Ushakov).
(Factories--Design and construction)

~~DOBROMYSLOV, N.S.~~, arkh.; SHATSKIY, M.M., inzh.

Limitation of types and standardization of sizes of air vents and skylights. Limitation of types and standardization of sizes of air vents and skylights. Prom. stroi. 36 no.12:13-16 D '58.

(MIRA 12:1

(Ventilation) (Skylights)

DOBROMYSLOV, N.S., arkhitekto^r; SOLYUS, Yu.M., inzh.; BARKO, A.S., arkhitekto^r

A new series of unified elements of panel walls. Prbm. stroi, 42 no.8:
15-18 '65. (MIRA 18:9)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy
institut promyshlennykh zdaniy i sooruzheniy.

CHERTKOV, B.A.; RAMM, V.M.; DOBROMYSLOVA, N.S.

Absorption of NH_3 by water and sulfuric acid. Zhur.prikl.khiz.
36 no.9:1972-1980 S 165.

Absorption of SO_3 by sulfuric acid monohydrate. Ibid.:1980-
1987 (MIRA 18:11)

DOBROMYSLOV, P.A.

Homemade trap for rodents. Biol. v shkole no.3:89 Hy-Je '62.

(MLRA 15:7)

1. Leninabadskiy pedagogicheskiy institut.
(Trapping)

DOEROMYSLOV, P.^{IV}, TEPLYAKOV, V. A., ZUBEKOV, I. A.

Tomatoes

More about the wonder-tomato. Sad i og. No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

DOBROMYSLOV, P. N.

"Degree of Infection with Bunt of Spring Wheat Grown in Ridges as Against Flat Rows," in Diseases of Grain Crops, Siberian Scientific-Research Institute of Cereal Economy, Omsk, 1932, pp. 72-79. 464.02 M93

So: SIRA- 21 -90-53, 15 Dec. 1953

DoB Romyslov, V.

DOBROMYSLOV, V.

Preventing injuries from electricity. Prom. koop. 12 no.1:38 Ja '58.
(Electricity, injuries from) (MIRA 11:1)

RUMYANTSEV, S.V.; DOBROMYSLOV, V.A.; SHTAN', A.S.; KULISH, Ye.Ye.

Radiation characteristics of γ -sources from Sm^{145} and
enriched Se^{75} . - Atom. energ. 15 no.6:511-514 D '63.
(MIRA 17:1)

DOBRONISLOV, V.A.

Why do we write and why do we pronounce it this way? Nauk i
zhizn' 29 No.6:109 Je '62. (MIRA 15:10)

1. Chlen korrespondent Akademii pedagogicheskikh nauk RSFSR.
(Russian language—Word formation)

DOBROMYSLOV, V.A.

How to speak correctly. Why this spelling? Nauka i zhizn' 29
no.7:54 JI '62. (MIRA 16:6)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR.
(Russian language—Words)

DOBROMYSLOV, V.A.

How to speak and write correctly? Nauka i zhizn' 29
no.10:93 0 '62. (MIRA 15:12)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk
RSFSR.

(Russian language—Grammar)

DOBROMYSLOV, V.A.

How to speak correctly. Nauka i zhizn' 29 no.11:88-89 N
'62. (MIRA 16:1)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR.
(Russian language--Prepositions)

DOBROMYSLOV, V.A.

More on the choice of words and phrases in compositions. Nauka
i shizn' 30 no.1:82-83 Ja '63. (MIRA 16:4)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR.
(Russian language--Style)

DOBROMYSLOV, V.A.

Do avoid cliches. Nauka i zhizn' 30 no.5:46 My '63. (MIRA 16:10)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR.

DOBROMYSLOV, V.A.

Typical mistakes. Nauka i zhizn' 30 no.6:51-52 Je '63.
(MIRA 16:7)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR.
(Russian language--Idioms, corrections, errors

DOBROMYSLOV, V.

Is it necessary to know grammar? Nauka i zhizn' 30 no.9:96-
97 S '63. (MIRA 16:10)

1. Rukovoditel' seminara po russkomu yazyku; chlen-korrespondent
Akademii pedagogicheskikh nauk RSFSR.

DOBROMYSLOV, V.I. (Dnepropetrovsk, ul. Plekhanova, d.40, kv. 8)

Technic of transplanting Filatov's flap in congenital palate defects by means of a new set of instruments. Vest. khir. 82 no.6: 124-128 Je '59.
(MIRA 12:8)

1. Iz gosspital'noy khirurgicheskoy kliniki (zav. - prof. T.Ye. Gnilorybov) i stomatologicheskogo otdeleniya (zav. - dotsent Ye.S. Malevich) Dnepropetrovskogo meditsinskogo instituta.
(PALATE, CLEFT) (SURGICAL INSTRUMENTS AND APPARATUS)

Dobromyslov, V. V.

Antibacterial activity of some carotenoids derived from microorganisms. A. M. Bezborodov and V. V. Dobromyslov (Chem.-Pharm. Inst., Leningrad). *Mikrobiologiya* 24, 607-9 (1985). Carotenoids extd. from *Torula rosea*, *Sporobolomyces roseus*, and *Micrococcus pyogenes* var. *aureus* by McOll were bactericidal in doses from 1:600 to 1:4000, and bacteriostatic in doses from 1:1000 to 1:16000 (tests in vitro). Carotenoids extd. by petr. ether were in general somewhat less active. The tests did not show promise of obtaining therapeutically useful carotenoids by this route. Test organisms included *Bacillus subtilis*, *B. mycoides*, *Escherichia coli*, *M. pyogenes* var. *albus*, *M. pyogenes* var. *aureus*, and a diphtheroid bacterium. Julian P. Smith

(2)

DOBROMYSLOV V.V.

USSR/Microbiology - General Microbiology.

F-1

Abs Jour : Ref Zhur - Biologiya, No 7, 1957, 26178

Author : Dobromyslov, V.V.

Inst :

Title : The Finding of a Synthetic Solution Suitable for Growing Dermatophytes.

Orig Pub : V sb.: Eksperimt. i klinich. issledovaniya. II, L., Medgiz, 1956, 55-57

Abst : Synthetic nutrient of the following composition is recommended for the cultivation of dermatophytes: 30 grams glucose, 30 grams mannite, 1 gram KH_2PO_4 , 2.5 grams $(\text{NH}_4)_2\text{H}_2\text{PO}_4$, 0.5 grams of MgSO_4 , NaCl and CaCl_2 each, and 0.0001 grams of CuSO_4 , KMnO_4 , FeSO_4 , SrCl_2 and $\text{K}_2\text{H}_4\text{C}_4\text{O}_6$ each, and 1 liter of distilled water.

Card 1/1

DOBROMYSLOV, V. V.,

USSR/ Microbiology. Antibiosis and Symbiosis.
Antibiotics

F-2

Abs Jour: Ref Zhur - Biol., No 6, 1958, 24154

Author : Dobromyslov, V. V., Sokolov, B. V.

Inst : Not given

Title : Data on Modification of Yeast-Like Fungi of the
Genus Candida in the Process of Adaptation to
Antibiotics.

Orig Pub: V sb.: Eksperim. i klinich. issledovaniya. II.
L., Medgiz, 1956, 107-109

Abstract: Fifteen cultures of yeast-like fungi of the Candida
and Debaryomyces genuses were cultivated on media
with increasing concentrations of 3 antibiotic
preparations of actinomycete origin. Not all the
species studied acquired resistance to antibiotics
at the same rate. The strain most resistant to the

Card 1/2

USSR/ Microbiology. Antibiosis and Symbiosis.
Antibiotics

F-2

Abs Jour: Ref Zhur - Biol., No 6, 1958, 24154

Abstract: preparations in question, *C. krusei*, and the most sensitive strains of *C. pseudotropicalis*, adapted themselves more slowly and increased their resistance weakly. In the process of adaptation a decrease of biochemical activity and pathogenicity was noted, and an increase of sensitivity to some other antibiotics and antiseptics. In the cultures a gradual transition was noted from smooth to rough forms, and in relation to this there was a change in the type of growth and the cell sizes and forms. In transferring on media without antibiotics, the adapted cultures acquire anew the original properties.

Card 2/2

DOBROMYSLOV, V.V.

USSR/Microbiology - General Microbiology.

F-1

Abs Jour : Ref Zhr - Biologiya, No 7, 1957, 26224

Author : Kondratyeva, A.A., Dobromyslov, V.V.

Inst :

Title : A Study of the Carbolytic Activity of Yeast-Like Fungi
of the Genus CAndida.

Orig Pub : V. sb.: Eksperim. i klinich. issledovaniya, II, L.,
Medgiz, 1956, 115-116

Abst : The carbolytic activity of 15 strains of various species
of Candida was studied. The fungi were obtained from
patients with yeast mycoses. All strains effectively
fermented glucose, but were less effective on galactose
(some species failed to do so altogether). Disacchari-
des ferment less than monosaccharides, while certain
species of fungi (C. krusei and C. parakrusei) ferment
neither maltose, nor saccharose. The only species to
ferment lactose is C. pseudotropicalis, and this may

Card 1/2

USSR/Microbiology - General Microbiology.

F-1

Abs Jour :. Ref Zhur - Biologiya, No 7, 1957, 26224

have diagnostic use. Polysaccharides and alcohols are not fermented. The greatest fermentative activity occurs among *C. albicans* and *C. pseudotropicalis*, while *C. krusei* and *C. parakrusei* are the least active.

Card 2/2

F

USSR/Microbiology - General Microbiology,
Variability and Heredity.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99254

Author : Dobromyslov, V.V., Sokolov, B.V.

Inst : Leningrad Chemicopharmaceutical Institute

Title : On the Variability of Microbes in the Process of
Adaptation to Certain Antibiotics.

Orig Pub : Sb. nauchn. tr. Leningr. khim.-farmatsevt. in-t, 1957,
3, 129-138

Abstract q : Studies were made on the properties of the cultures of
Staphylococcus albus and Staph. aureus, Streptococcus
hemolyticus and diphtheroids, which acquired in the pro-
cess of subinoculations on media, containing antibiotics
(setosine from Ascomycetes and 5 preparations from meta-
bolic products of Actinomycetes), resistance to agents

Card 1/2

- 9 -

· · USSR/Microbiology - General Microbiology,
Variability and Heredity

F

Abs Jour : Ref Zhur Biol., No 22, 1958, 99254

utilized. General characteristic signs for all variants obtained were: change of morphology, tinctorial, culture, and biochemical properties, and pathogenicity. Noted was a rise in sensitivity of the resistant cultures to the action of various chemical antiseptics - formalin, phenol, rivanol, and boric acid. The acquired resistance became lower during reseeding on media not containing the appropriate antibiotics, whereupon a partial reduction of the properties of the original cultures was noted. -- V.G. Petrovskaya

Card 2/2

COUNTRY USSR
 CATEGORY Microbiology
 ARG. JOUR. Ref Zhur-Biologiya, No.4, 1959, No. 14790
 AUTHOR Sokolov, B.V.; Dobromyslov, V.V.
 INST. Leningrad Chem. Pharmaceutical Inst.
 TITLE Variability of Yeast-like Fungi of the Candida Genus under the Influence of Several Antibiotics.
 ORIG. PUB. Sb. nauchn. tr. Leningr. khim.-farmatsevt. in-t, 1957, 3, 188-194
 ABSTRACT : Yeast and yeast-like fungi were repeatedly subcultured on nutrient media with increasing concentrations of antibiotic No. 15 of actinomycetes origin, obtained at the Institute of Microbiology of the Academy of Sciences of the USSR. The initial concentration of antibiotic was 1/3 the bacteriostatic dosage. An increase in resistance to the antibiotic depended on the initial sensitivity of the cultures and the number of transfers. After

CLASS:

1/3

COUNTRY :
CATEGORY :

ABS. JOUR. :

Vol. 14790

AUTHOR :
INST. :

TITLE :

REG. PUB. :

ABSTRACT : 30 subcultures resistance increased 8 - 32-fold. At the same time there was an increase in resistance to other antibiotics of actinomyces origin and in sensitivity to gramicidin and chemical agents. Adaptation was accompanied by the appearance of rough colonies, different varieties of morphological cells, weakening of biochemical activity, reduction and loss of pathogenicity, and decrease of antigenic specificity. With sub-

CARD:

2/3

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ABS. JOUR.

AUTHOR
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No. 14790

TITLE

ORIG. PUB.

ABSTRACT : culture on media without antibiotics the original characteristics of the cultures were partially restored. -- M.I. Nakhimovskaya

CARD:

3/3

DOBROMYSLOV, V.V.

Fermentative activity of pathogenic fungi under the influence of antibiotics. Trudy Len.khim.-farm.inst. no.13:102-112 '62.

(MIRA 15:10)

1. Kafedra mikrobiologii (zav. prof. P.N.Kiselev) Leningradskogo khimiko-farmatsevticheskogo instituta.

(DERMATOPHYTES) (ANTIBIOTICS) (ENZYMES)

DOBROMYSLOV, V.V.; DROZDOV, A.I.; KONEV, Yu.Ye.

Experimental superficial dermatomycosis in guinea pigs and rabbits. Vest. dermat. i ven. 38 no.8:21-25. Ag '64.

(MIRA 18:8)

1. Laboratoriya meditsinskoy mikologii (zav. A.A. Kondrat'yeva)
Leningradskogo instituta antibiotikov.

DOBROMYSLOV, V.V.; MEDVEDKOVA, A.A.; FROLOVA, M.A.

Characteristics of the development of dermatophytes on chick
embryos. Zhur. mikrobiol., epid. i immun. 41 no.4:131-135
Ap '64. (MIRA 18:4)

1. Leningradskiy nauchno-issledovatel'skiy institut antibiotikov
Ministerstva zdravookhraneniya RSFSR.

DOBROMYSLOV, V.V.; DROZDOV, A.I.; KONEV, Yu.Ye.

Experimental model of visceral mycosis in mice and rats. Eksp. i
klin. issl. po antibiot. 1:192-196 '58. (MIRA 15:5)
(MYCOSIS)

DOBROMYSLOV, V.V.; KONEV, Yu.Ye.; DROZDOV, A.I.

Producing a model of experimental onychomycosis in animals.
Eksp. i klin. issl. po antibiot. 1:197-202 '58. (MIRA 15:5)
(MYCOSIS) (NAILS (ANATOMY)—DISEASES)

BYSTROVA, V.V.; DOBROMYSLOV, V.V.; YELINOV, N.P.; ZAIKINA, N.A.; KONDRAT'YEVA,
A.A.; MEDVEDKOVA, A.A.; SILUYANOVA, N.A.; PROLOVA, M.A.

Study of the antifungal properties and chemotherapeutic activity of
antibiotic 26/1. Eksp. i klin. issl. po antibiot. 2:289-295 '60.
(MIRA 15:5)

(ANTIBIOTICS)

DOBROMYSLOV, Yu., instruktor

A week's assignment finished in five days. Sov.profsoiuzy 7 no.3:9-10
F '59. (MIRA 12:3)

1. Kuznetskiy raykom Kommunisticheskoy Partii Sovetskogo Soyuza, g.
Stalinsk.

(Kuznetskiy District--Mining engineering)

DOBROMYSLOVA, A., BALANDINA, W. and BEREZAN, K.

"The polymerization of butadiene in emulsions", I. Description of the process,"
Bull, Acad. Sci USSR, Cladde Sci Nath Nat., Ser. Chi, pp 397-407, 1936.

409-22

423-33

NOTE: See car d for BALANDINA, V. for abstract.

10

The determination of active hydrogen in organic substances. B. Ya. Shtuber and A. V. Dobrovolskaya. *J. Applied Chem.* (U. S. S. R.) 11, 704-6 (1938).—The Chugaev-Zerevitinov method (cf. C. A. 2, 2810; 5, 1285) was used. The method can be used with good results for the detn. of active H in naphthols and aromatic amines, if the detns. are carried out in a N atm. and xylene is used as a solvent. A. A. Podgorny

DOBROMYSLOVA, A.

"Research in the Field of the Vulcanization of Rubber: VII, Effect of Organic Accelerators on the Kinetics of Vulcanization and Properties of Vulcanized Rubber from Natural Rubber, " Kolloid. Zhur., 10, No. 4, 1948. Sci. Res. Inst. of Tire Ind.; Moscow Inst. of Fine Chem. Tech. M V. Lomonosov, -1947-.

DOBROMYSLOVA, A.

USSR/Chemistry - Rubber; Istopes 1 Sep 53

Phenomena of Polymerization during the Vulcanization Process,
"B. Dogadkin, M. Fel'dshteyn, A. Dobromyslova, V. Shkurina, and
M. Kaplunov, Moscow Inst of Fine Chem Technol im M. V. Lomonosov

DAN SSSR, Vol 92, No 1, pp 61 - 64

Established that polymerization with rubber of radicals derived from accelerators takes place in vulcanization processes occurring in the presence of accelerators of the dibenzothiazoldisulfide and benzothiazoldiethylsulfenamide class. Used radioactive S^{35} in the vulcanization agent to trace the course of the vulcanization. Presented by Acad B. A. Kazanskiy 16 Jun 53.

274T6

ДОБРОМЫСЛОВ, А.

✓ 1959. Theory of vulcanisation and of the action of accelerators. B. DOBROMYSL, V. SELUKOVA, Z. DOBROMYSLA, A. DOBROMYSLA, M. FEL'DENTSEV, M. KUDENOV, *Journal of S.S.R.*, 1959, 17.

199-210. English translation. Vulcanisation of rubber by dibenzothiazyl disulphide (without sulphur) is a radical-type reaction. Kinetic curves were obtained for the conversion of dibenzothiazyl disulphide into mercaptobenzothiazole and the addition to the rubber molecules. Changes in molecular weight were followed during vulcanisation of rubber solutions. Vulcanisation trebled the molecular weight. Vulcanisates were found to contain transverse C-C bonds between the molecular chains of rubber and the presence of benzothiazyl groups in the vulcanisate structure was proved. The kinetics of the vulcanisation of rubber by sulphur in the presence of dibenzothiazyl disulphide was studied. Seventeen references are given.

35728

DOBROMYSLOVA, A.

1. Theory of vulcanization and the action of accelerators. B. A. Dobromyslova, V. S. Solovkova, Z. Tarasova, A. Dobromyslova, M. P. Pashchenko, and M. S. Kalashnikov (Inst. Fine Chem., U.S.S.R. Acad. Sci., Moscow). *Kolloid Zhur.* 17, 215-29 (1955); cf. *C.A.* 48, 1037c. Na-butadiene rubber (I) was vulcanized by heating at 143° with (e.g., 8%) benzothiazolyl disulfide (II) in toluene in N₂; e.g., after heating for 8 hrs., the mol. wt. was 300,000 when the initial mol. wt. was 100,000, and the S content was 0.4%; about 40% of the initial II was decompd., and about 0.6 the decompd. II was transformed into mercaptobenzothiazole. An analogous vulcanization in the solid state gave, in 8 hrs., a product with elasticity modulus E of 5 kg./sq. cm. The rate of stress relaxation of these vulcanizates was increased by substituting S for a part of II; this showed that, in the reaction between I and II, more stable C—C bonds form, while the reaction between I and S results in less stable S—S— bonds. The no. of bonds produced by 1 mol. of II attached to I was 1.1-5.1. The mechanism of this bond formation is discussed. Heating of isoprene (III) with II at 125° caused about 30% polymerization of III. When I was vulcanized with a mixt. of S and II, the rate of reaction increased linearly with the ratio of II to I. The increase of E with the S content of the vulcanizate was greater, the greater the proportion of the 1,4-isomer in I. The S of the vulcanizate, by using S²⁺, was shown to exchange with the S in II or with free S. The reactions of the α -CH₃ group of rubber chains are very important for vulcanization. J. J. Bikerman

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and Sci. Res. Inst. Tire Ind.

DOBROMISLOVA, A., DOGADKIN, B. A., TOLSTUKHINA, F., KLAUSEN, N., and SAMSONOVA, N.

"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-3,084,395

DOBROUTS L-VII A-V

Effect of structure on the chemical activity and vulcanization

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000410620005-3

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000410620005-3"

DOGADKIN, B.A.; BELYATSKAYA, O.N.; DOBROMYSLOVA, A.V.; FEL'DSHTEYN, M.S.

Vulcanization of rubber in the presence of N,N-diethyl-2-benzothiazylsulfenamide as accelerator. Vysokom. soed. 1 no.6:878-888 Je '59.
(MIRA 12:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. Lomonosova.
(Vulcanization)

S/190/60/002/004/006/020
B004/B056

AUTHORS: Dogadkin, B. A., Shershnev, V. A., Dobromyslova, A. V.
TITLE: Reversion Phenomena in the Vulcanization of Rubber With
Tetramethylthiuramdisulfide
PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 4,
pp. 514-517

TEXT: The authors investigated the vulcanization of natural rubber and CKM (SKI) isoprene rubber with tetramethylthiuramdisulfide at 143°C in the absence or in the presence of oxides of zinc, magnesium, or calcium in air and argon. Fig. 1 shows the change in the steric network in SKS rubber in air and argon as function of the duration of vulcanization; Fig. 2 shows the kinetics of sulfur accumulation, and Fig. 3 shows the change in the steric network in natural rubber as a function of the duration of vulcanization. Addition of phenyl-β-naphthylamine-1 increases the cross-linking. A decrease of the density of the steric network, i.e., a reversion of vulcanization was observed when natural

Reversion Phenomena in the Vulcanization of
Rubber With Tetramethylthiuramdisulfide

S/190/60/002/004/006/020
B004/B056

rubber or SKI-rubber was vulcanized with tetramethylthiuramdisulfide without metallic oxides or in the presence of magnesium- or calcium oxides (Table 1). In this case, the dimethyldithiocarbamic acid decomposes into hydrogen sulfide and dimethylamine. Although this decomposition was observed also in argon, no reversion occurred. In the presence of ZnO, reversion occurs neither in air nor in argon, because the dimethyldithiocarbamic acid is bound as zinc salt. Zinc increases also the stability of the vulcanizate to aging (Table 2). The authors explain the reversion of rubber vulcanization by destructive oxidation processes which are intensified by the decomposition products of dimethyldithiocarbamic acid, but are prevented by the binding of this acid with zinc. There are 3 figures, 2 tables, and 3 references: 1 Soviet. ✓

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

SUBMITTED: December 24, 1959

Card 2/2

DOGADKIN, B.A.; DOBROMYSLOVA, A.V.; BELYATSKAYA, O.N.; GYUL'-NAZAROVA, T.A.

Investigation of the premature vulcanization (scorching) of rubber mixtures. Part 1: Structural changes in unfilled and filled mixes during heating. Vysokom.soed. 3 no.4:497-504 Ap '61.

(MIRA 14:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Vulcanization)

S/190/61/003/004/001/014
B101/B207

AUTHORS: Dogadkin, B. A., Dobromyslova, A. V., Belyatskaya, O. N.,
Gyul'-Nazarova, T. A.

TITLE: Study of the early vulcanization (scorching) of rubber mix-
tures. 1. Structural changes of non-filled and filled mix-
tures when heated

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 4, 1961,
497-504

✓

TEXT: The present study deals with the structural changes occurring in the scorching of rubber mixtures as well as with the effect of various factors upon this process. The investigation was conducted by means of a plastometer of the NIISHP (Scientific Research Institute of the Tire Industry) at 120°C. The mixtures were heated in the plastometer for seven minutes and then, at constant pressure, pressed through a capillary; every two minutes, the quantity leaving the capillary was weighed. The moment at which no more mixture left the capillary, was defined as scorching point. Preliminary tests proved that the data obtained by means of the plastometer are in good

Card 1/7

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Study of ...

S/190/61/003/004/001/014
B101/B207

agreement with those obtained by the BP-1 (VR-1) viscosimeter. Moreover, the kinetics of sulfur addition and the change of the solubility in benzene were tested. A) Non-filled mixtures. The experiments were made with a mixture of (in weight %) 100 CKC-30A (SKS-30A) rubber, 3 sulfur, 1.2 N,N-diethylbenzothiazyl sulfenamide, 1.2 dibenzothiazyl disulfide; 2 zinc oxide, 2.0 stearic acid. Fig. 1 shows the results obtained. The curve of S addition does not go through the origin of coordinates, since the initial rubber contains already 0.2% S. In the scorching point, the S addition amounts to about 0.5%. B) Filled mixtures. Carbon black served as filler. The mixture consisted of (in weight %) 100 SKS-30A rubber, 3.0 sulfur, 1.2 sulfenamide ET (BT), 1.2 altax, 5.0 ZnO, 1.0 colophonium, 3.0 rubrax, 1.0 stearic acid, 5.0 polydienes, 40 spray burner black, 15.0 carbon black. The results are listed in Fig. 2. In the presence of highly surface-active carbon black, the scorching point occurred already after the addition of 0.25-0.30% sulfur, while in the presence of coarse-disperse carbon black, 0.4-0.5% S is added. C) The authors studied the effect exerted by various types of carbon black the properties of which are listed:

Card 2/7

Study of ...

S/190/61/003/004/001/014
B101/B207Table 1.

Type of carbon black	pH of the carbon black suspension in water-alcohol mixture	specific surface m ² /g	scorching time min
Carbon black	3.2 - 3.3	90	94
Carbon black, reduced	8.4 - 8.6	-	62
Chimney soot	8.0 - 8.2	30	62
Chimney soot oxidized	6.2 - 6.4	-	98
Spray burner black	7.4 - 7.6	25	70
Thermal carbon black	7.4 - 7.6	15	76

Fig. 4 shows the effect of the pH of carbon black upon the sulfur addition. The effect of the degree of dispersion of carbon black manifested itself by the fact that carbon black, already when masticated with rubber, forms rubber - black gel (approximately 42%), while in the case of coarse-disperse

Card 3/7

S/190/61/003/004/001/014
B101/B207

Study of ...

chimney soot this effect was not observed. Heating of carbon black in N₂ to eliminate the oxygen-containing groups, had no effect upon this phenomenon, led, however, due to the pH increase, to a quicker sulfur addition. The network formation with fine-disperse carbon black was also observed in mixtures with natural rubber. Thus, scorching is caused by interaction of rubber with sulfur and other vulcanizing substances. The only means of a successful elimination is an inhibition of the mentioned processes. V. A. Zhukova participated in the experiments. There are 6 figures, 2 tables, and 14 references: 2 Soviet-bloc and 12 non-Soviet-bloc. The 2 references to English language publications read as follows: M. L. Studebaker, L. G. Nabors, Rub. Age 80, 5, 837, 1957; W. H. Watson, Industr. and Engng. Chem. 47, 1281, 1955.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M. V. Lomonosova (Moscow Institute of Fine Chemical
Technology imeni M. V. Lomonosov). NII shinnoy
promyshlennosti (Scientific Research Institute of Tire Industry)

SUBMITTED: June 10, 1960

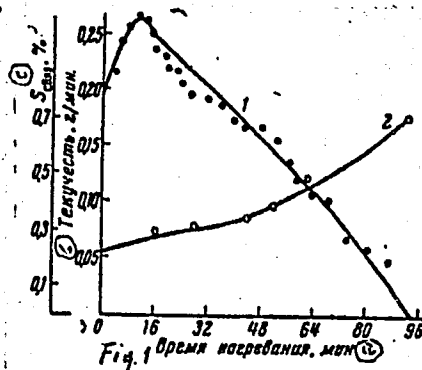
Card 4/7

Study of ...

S/190/61/003/004/001/014
B101/B207

Fig. 1: Change of the flow and the amount of bound sulfur when heating non-filled butadiene-styrene rubber to 120°C.

Legend: 1) flow; bound sulfur; a) time of heating, min; b) flow; c) bound sulfur, %.

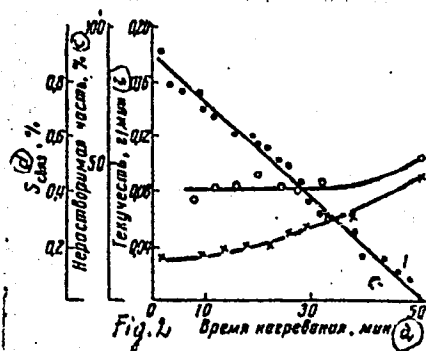


Card 5/7

Study of ...

S/190/61/003/004/001/014
B101/B207

Fig. 2: Change of the flow, solubility and amount of bound sulfur when heating filled rubber to 120 °C.
Legend: flow; 2) solubility; 3) bound sulfur; a) time of heating, min; b) insoluble portion; c) bound sulfur.



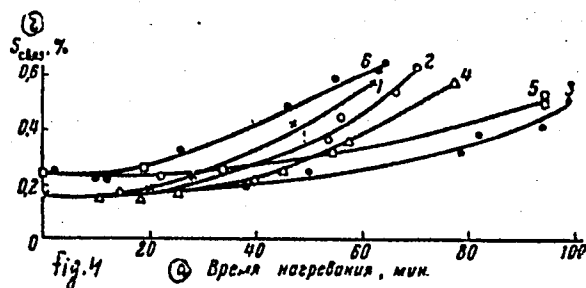
Card 6/7

S/190/61/003/004/001/014
B101/B207

Study of ...

Fig. 4: Kinetics of the sulfur addition to rubber mixtures.

Legend: 1) chimney soot (pH = 8);
2) spray burner black (pH = 7.4);
3) chimney soot oxidized (pH = 6.2);
4) thermal carbon black (pH = 7.4);
5) carbon black (pH = 3.2);
6) carbon black reduced (pH = 8.4);
a) time of heating; b) bound sulfur.



Card 7/7

28187

S/190/61/003/010/017/019

B124/B110

// 2211.

AUTHORS: Dogadkin, B. A., Dobromyslova, A. V., Belyatskaya, O. N.

TITLE: Study of premature vulcanization (scorching) of rubber mixtures. II. Effect of inhibitors (antiscorchers) on the kinetics of sulfur addition to rubber

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 10, 1961, 1572-1579

TEXT: The authors studied the effect of the best-known antiscorching agents (benzoic and phthalic acids, phthalic anhydride, and N-nitrosodiphenyl amine (NDPA)) on the vulcanization rate of rubber mixtures with sulfur. The rubber mixtures, filled later with carbon black, consisted of 100 parts by weight of styrene butadiene rubber CKC-30A (SKS-30A), 3.0 sulfur, 1.2 N,N-diethyl-amino-benzothiazole sulfenamide, 1.2 di-benzothiazyl disulfide, 5.0 ZnO, 2.0 stearic acid, and 1 part by weight of the antiscorchers mentioned. Table 1 shows the effect of the inhibitors examined on the time of scorching and the addition rate of sulfur to rubber. All antiscorchers prolong the time of liquid state of the mixture.

Card 1/6

28187

S/190/61/003/010/017/019
B124/B110

Study of premature vulcanization ...

The inhibiting effect of NDPA is not affected by the presence or type of the accelerator (N-cyclohexyl benzothiazyl sulfenamide (CHBTS), diphenyl guanidine, 2-mercapto benzothiazole, tetramethyl-thiuram disulfide, N-oxy-diethylene-benzothiazyl sulfenamide (ODBTS), or 2,4-dinitro-phenyl ether of 2-mercapto benzothiazole (MBTDNP)). Mixtures of oil containing styrene butadiene rubber CKC-30AM-15 (SKS-30AM-15) were tested. The induction period in the addition of sulfur in mixtures containing CHBTS is increased in the presence of NDPA; the addition proceeds very slowly in the presence of ODBTS and MBTDNP at 120°C, and is still very small after 2 hr at 130°C. In mixtures on the basis of extracted butadiene styrene, vulcanization is not accelerated at 100°C in the presence of NDPA, even after 8 hr. A first-order equation holds for the interaction of sulfur with rubber; there is a linear dependence of the logarithm of the free-sulfur concentration on the time of heating. The constants of the reaction rate were calculated from a first-order equation (Table 2). The rate of addition of CHBTS and Thiuram to rubber is increased by NDPA; the shape of the kinetic curve for CHBTS addition is not changed by NDPA; only the amount of Thiuram sulfur bound to rubber rises. In conclusion, it may be stated that NDPA inhibits the interaction of sulfur with rubber. The mechanism of action of the other inhibitors examined is different, and depends on the type of

Card 2/6

28187

S/190/61/003/010/017/019
B124/B110

Study of premature vulcanization ...

inhibitor used and the components of the rubber mixture. Thermal decomposition ($> 100^{\circ}\text{C}$) of NDPA produces NO which reacts in vulcanization with sulfur-containing radicals in the mixture, and inhibits rubber vulcanization. The second radical (diphenyl nitrogen) formed in thermal decomposition of NDPA, however, as a weak accelerating effect on the addition by accepting hydrogen. The dropping inhibitory effect of NDPA with increasing temperature dissociate to active particles with reduced number of sulfur atoms. The inhibition of crosslinking by NDPA is possibly not only due to the dropping addition rate of sulfur but also to the destructive effect of NDPA on the rubber. A. Ye. Grinberg et al. (Ref. 3: Kauchuk i rezina, 1959, no. 1, 22) and V. I. Gol'danskiy (Ref. 6 Uspekhi khimii, 15, 63, 1946) are mentioned. There are 8 figures, 2 tables, and 7 references: 5 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: D. Craig, Rubber Chem. and Technol. 30, 1291, 1957; L. A. K. Staveley, C. N. Hinshelwood, Trans. Faraday Soc. 35, 845, 1939.



Card 3/6

28187

Study of premature vulcanization ...

S/190/61/003/010/017/019
B124/B110

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

SUBMITTED: December 16, 1960

Card 4/6

11,2320

45393

8/190/63/005/002/001/024
B101/B102

AUTHORS:

Belyatskaya, O. N., Bogadkin, B. A., Dobromyslova, A. V.,
Tomilina, L. A.

TITLE:

Study of the scorching of rubber mixtures.
III. Effect of vulcanization inhibitors on structural
changes caused in the rubber by mastication and heat
treatment

PERIODICAL:

Vysokomolekulyarnyye soedineniya, v. 5, no. 2, 1963,
164-170

TEXT: Changes of intrinsic viscosity and molecular weight caused by masti-
cation and heat treatment were studied in butadiene-styrene rubber
CKC-30AM (SKS-30AM) and natural rubber (NR) under the effect of the
inhibitors N-nitroso-diphenyl amine (NDPA) and phthalic anhydride (PA). In
SKS-30AM, the viscosity was not changed by addition of 1% NDAP or PA and
20 min mastication or 30-60 min heating to 120°C. Since, however,
mastication and heat treatment effect complex structural changes in butyl
styrene rubber, the factors of which are difficult to define, the effect of
Card 1/3

Study of the scorching of ...

S/190/63/005/002/001/024
B101/B102

NDPA on NR was investigated. Viscosimetric determination of the molecular weight showed that mastication and heat treatment cause intensive degradation of NR which is not affected by NDPA. On mastication in Ar atmosphere the initial degradation was more intensive in the presence of NDPA, but after 60 min the molecular weight had dropped to the same value as without inhibitor. NDPA had no effect when the heat treatment was performed in Ar atmosphere. If NDPA was added to a toluenic solution of NR the viscosity dropped rapidly within the first 2-3 hrs and then gradually for 7 days. Results of tests with NR solution in argon: Heating of the NR solution without addition does not change the viscosity; an addition of 5 parts by weight NDPA reduces the viscosity at first rapidly and then more slowly; addition of methyl-phenyl triacene in a quantity equimolecular to NDPA reduces the viscosity even within the first 15 min to such an extent that subsequently no further reduction takes place. The NDPA effect in mastication is explained by its decomposition into diphenyl nitrogen and nitrogen oxide. Nitrogen oxide aggregates with the polymer radicals that form as a result of the mechanical action, stabilizes the radicals and thus promotes the degradation. When NR is heated with NDPA in inert atmosphere the free NDPA radicals are not able to induce degradation. In solutions, however, diphenyl nitrogen and nitrogen oxide have a degrading effect.

Card 2/3

Study of the scorching of ...

S/190/63/005/002/001/024
B101/B102

analogous to methyl-phenyl triacene decomposing into free radicals. The different effects of NDPA in solution and in bulk are explained by the "cellular effect". Since rubber is always processed in air the action of NDPA is negligible and cannot be compared with that of the atmospheric oxygen. The degradation effect of NDPA is not responsible for its efficiency as a vulcanisation inhibitor. There are 6 figures and 2 tables.

ASSOCIATION:

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

SUBMITTED:

July 21, 1961

Card 3/5

BEIYATSKAYA, O.N.; DOGADKIN, B.A.; DOBRONISLOVA, A.Y.; TOMILINA, L.A.

Prevulcanization (scorching) of rubber compounds. Part 3: Effect of vulcanization inhibitors on structural changes in rubbers during mastication and heating. Vysokom.sped. 5 no.2:164-170 F '63. (MIRA 16:2)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.
(Vulcanization) (Rubber—Analysis)

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C 1003 ROMYSLOVA, K.N.

Intramolecular rearrangements in acetylene series. VI. Preparation of methyl-*tert*-butyl(methylethynyl)carbinol and its reaction with hydrogen chloride. Reaction of 2,2,3-trimethyl-3-chloro-4-hexyne with silver acetate. A. I. Zakharova and K. N. Dobromyslova (A. Zhdanov State Univ., Leningrad). *Zhur. Obshchei Khim.* (J. Gen Chem.) 20, 2029-37 (1950); cf. *C.A.* 43, 6153c; 44, 1001a. - Passage of $\text{MeC}\equiv\text{CH}$ through 400 ml. Et_2O and 200 g. powder. KOH at 0° with aq. soln. of 110 g. $\text{Me}_2\text{C}(\text{Ac})$ in Et_2O gave, after standing overnight, 65% $\text{Me}_2\text{C}(\text{Me})(\text{OH})\text{C}\equiv\text{CH}$ (I), bp 68°, d_4^{20} 0.8046, d_4^{25} 0.8767, n_D^{20} 1.4520, n_D^{25} 1.4500, n_D^{30} 1.4488 (cf. Iotzich, *J. Russ. Phys. Chem. Soc.* 41, 540 (1909)). Treatment of 25 g. I with 1.5 g. portions of dry HCl gave a spontaneous temp. rise to 70-75°, yielding 2,2,3-trimethyl-3-chloro-4-hexyne (II), bp 50-51°, m. 21°, d_4^{20} 0.9275, d_4^{25} 0.9251, n_D^{20} 1.46310, n_D^{25} 1.46033, n_D^{30} 1.45893, this with 1% alk. KMnO_4 at 50° gave $\text{Me}_2\text{C}(\text{Ac})$ and AcOH . Stirring 16 g. II with 17 g. AgOAc in AcOH 4 hrs. at 60° gave 63% 2,2,3-trimethyl-3-acetoxy-4-hexyne (III), bp 65°, d_4^{20} 0.9321, d_4^{25} 0.9144, n_D^{20} 1.44310, n_D^{25} 1.44068, n_D^{30} 1.43124. Refluxing 8 g. I with 40 g. Ac_2O 6 hrs. gave an acetate closely similar to III, bp 62-63°, d_4^{20} 0.9315, d_4^{25} 0.9138. Formation of the II from I proceeds by a monomol. mechanism, as shown by the ease of replacement caused by the inductive effect of the Me group. G. M. Kosolapoff

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Study of the catalytic conversions of shale tar. Trudy LIEI no. 9:90-96 '55. (MLRA 9:9)

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