

RYSKIN, A.I.; TKACHUK, A.M.; TOLSTOY, N.A.

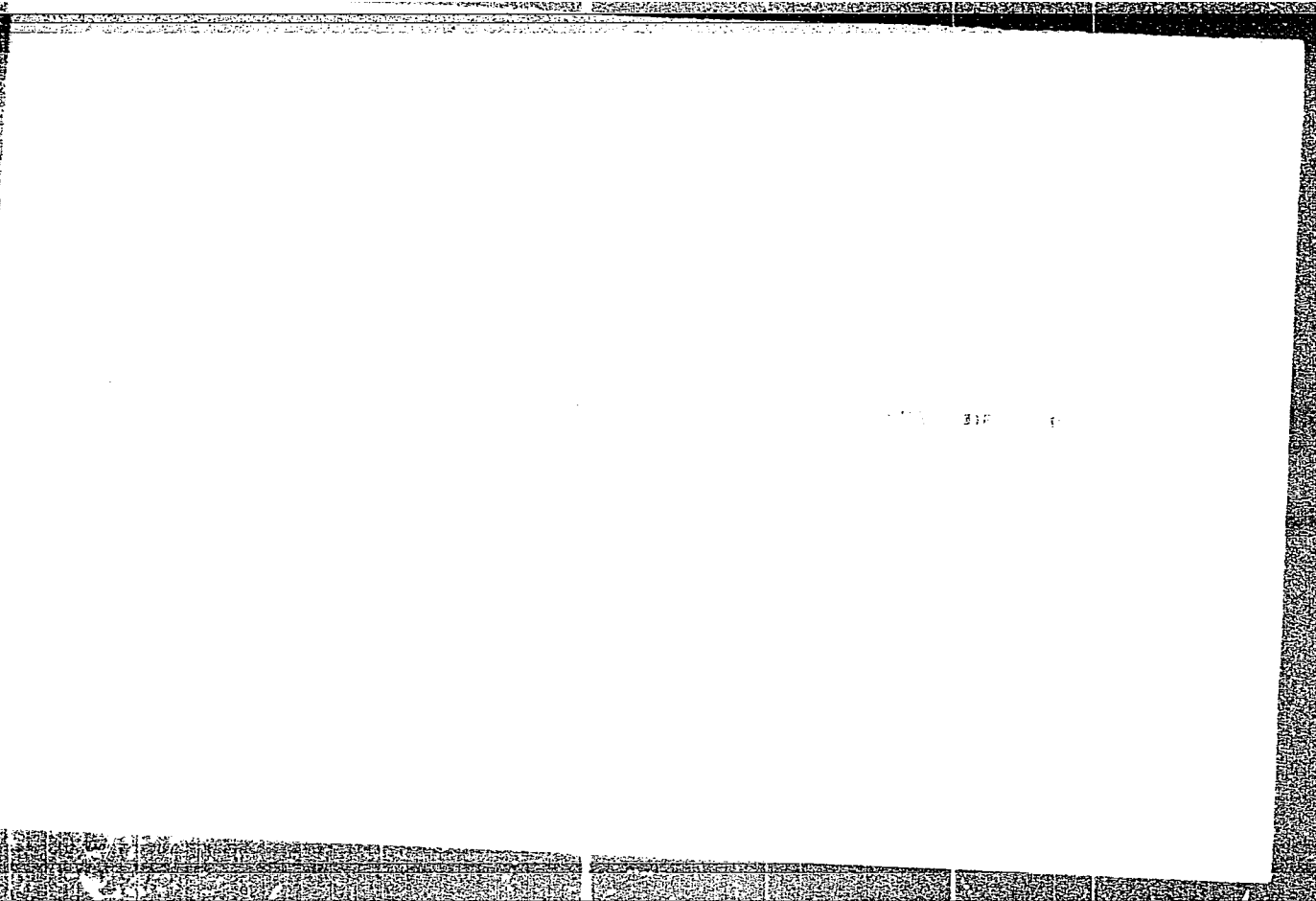
Optical properties of cyanoplatinate compounds. Opt. i spektr.
17 no.4:565-570 0 '64. (MIRA 17:12)

TOPIC TAGS luminescence, luminescent crystal, p.n. conductivity, excitation, thallium compound, chloride

Card 1/2

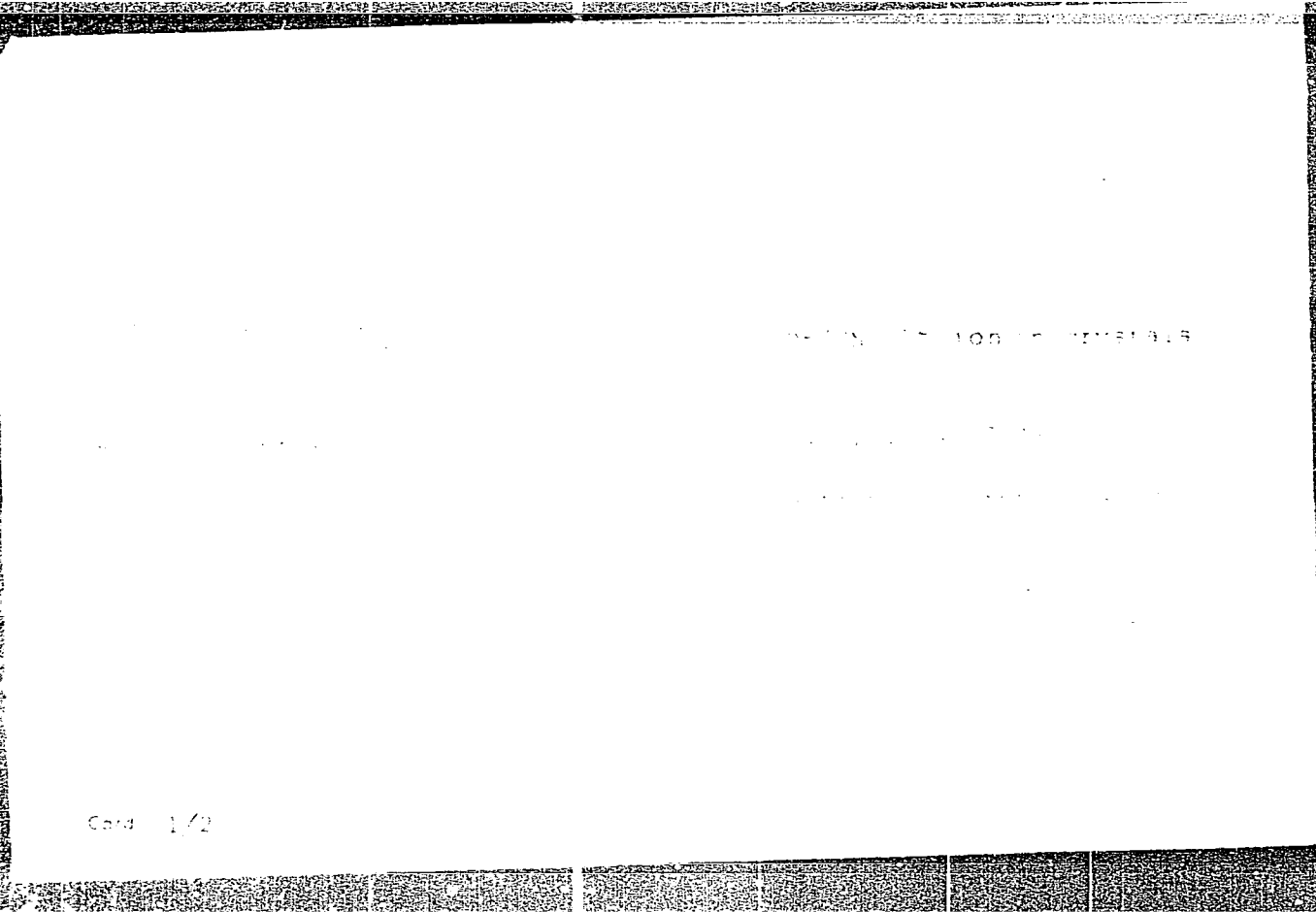
"APPROVED FOR RELEASE: 07/16/2001

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Card 1/2

1 15258-66

ACCESSION NR: AP4048743

It is shown further that the level scheme proposed by C. Mancuit and G. E. Miller (Phys. Rev. 134, 1047 (1963)) for the complex nucleus ^{157}Gd can be used to interpret the experimental data. The assignments of the level

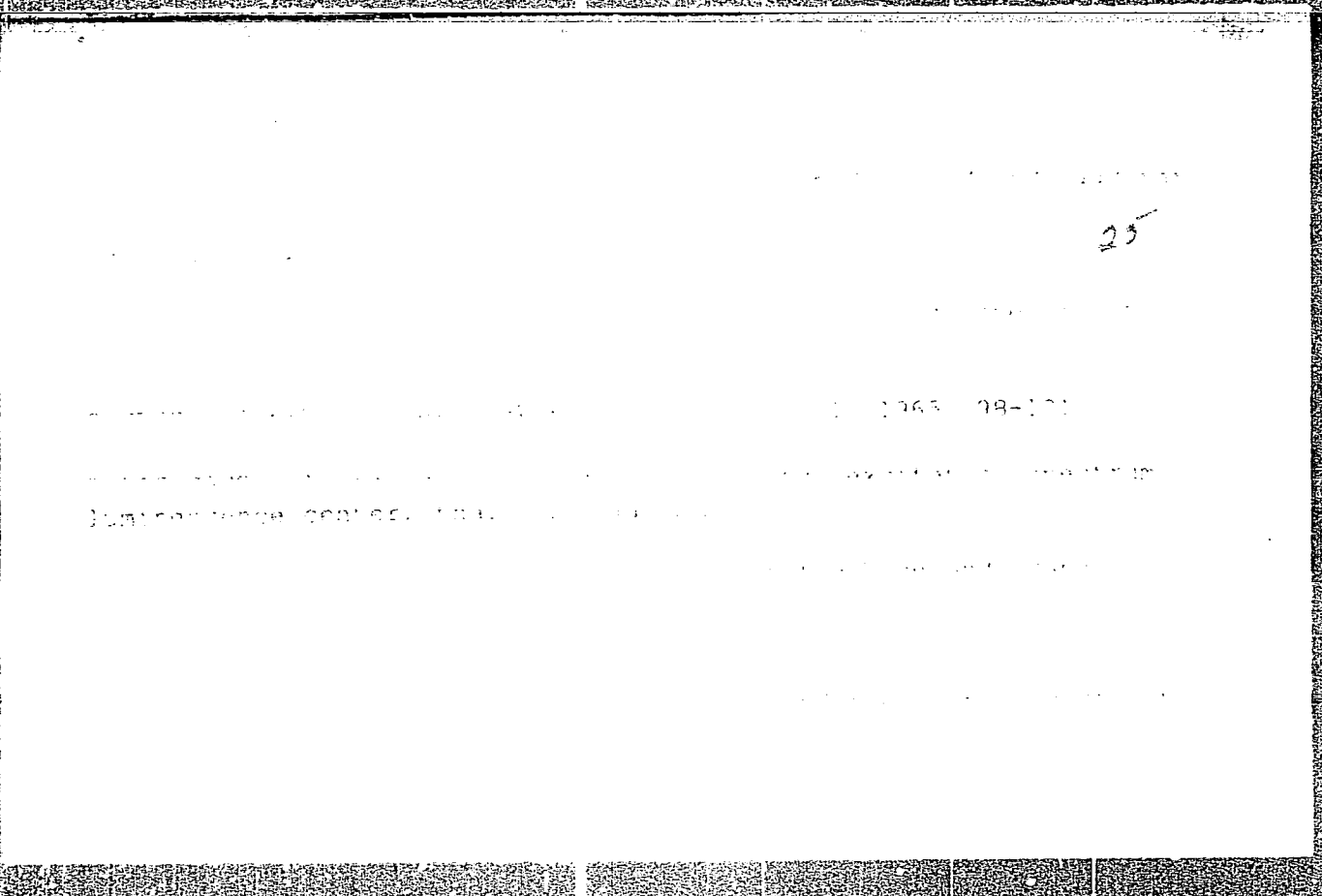
SUBMITTED: 16Dec63

ENCL: 00

SUB CODE: OP, IC

NR REP SOV: 001

OTHER: 004



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CIA-RDP86-00513R001756120018-0

ASSOCIATION: None

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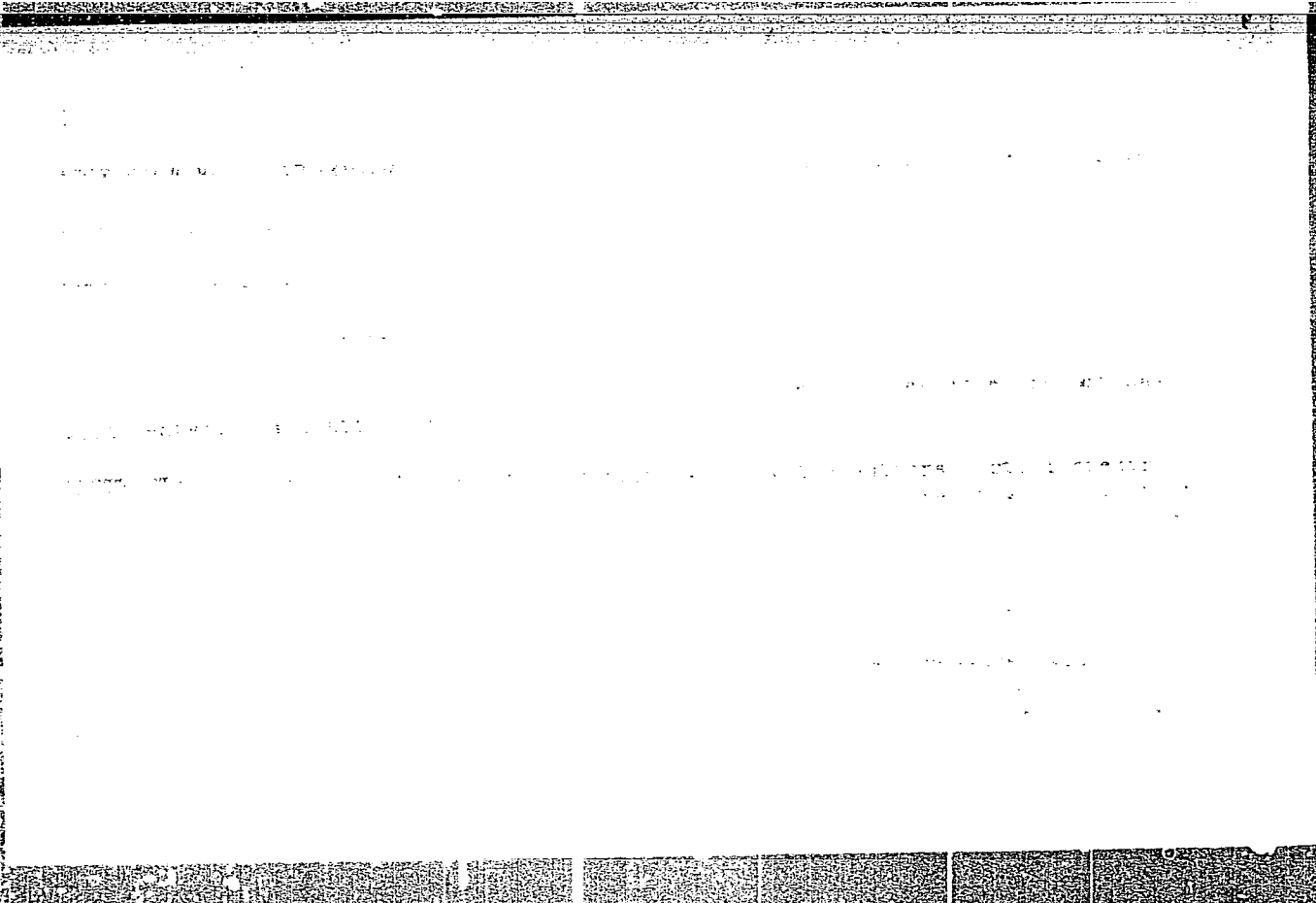
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ACCESSION NR: AP5009030

THE FOLLOWING INFORMATION IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY THE REASONS AS INDICATED

RELATION:

ASSOCIATION: None

SUBMITTED: 06Oct63

ENCL: 00

SUB CODE: SS, OP

RE REF DIV: OLL

OTHER: .

Card 2/2

L 9887-66 EWT(1)/EWT(m)/T DS/NW

ACC NR: AP5027681

SOURCE CODE: UR/0051/65/019/005/0826/0828

AUTHOR: Tolstoy, N. A.; Spartakov, A. A.; Trusov, A. A.

57
B

ORG: none

TITLE: Electro-optical effect in a rotating electrical field and a stable electrical dipolar moment in colloidal particles

SOURCE: Optika i spektroskopiya v. 19, no. 5, 1965, 826-828

TOPIC TAGS: colloid chemistry, electric field, electric effect, thermal optic effect, dipole moment

ABSTRACT: In a dispersion medium containing polar molecules (as in water), colloidal particles of different nature caused a sharply expressed electro-optical effect when this colloidal solution was placed in a field of alternating rectangular electrical pulses. This effect was associated with a change in time of the orientation of colloidal particles. The latter caused a changeable dichroism which was, as a rule, conservative, and not consumptive. A comparison of light-modulation curve phases with the electrical voltage curve indicated that colloidal particles

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UDC: 535.347

2

L 9887-66

ACC NR: AP5027681

in a polar dispersion medium possess a stable electric dipolar moment. The scanning of the light modulation curve on a oscillograph gave a Lissajous figure of the second order. Dichroism in oriented particles could be determined by polarization measurements of the colloidal solution in a laminar flow. Orig. art. has: 1 figure. 0

SUB CODE: 07/ ²⁰¹ SUBM DATE: 13Apr65/

NR REF SOV: 004/ OTHER: 000

beh
2/2

L 14509-66 ENT(1) LJP(c)

ACC NR: AP5027683

SOURCE CODE: UR/0051/65/019/005/0889/0834

AUTHOR: Tolstoy, N. A.; Abramov, A. P.

ORG: None

TITLE: Nonlinear ^{21,44,55} quenching of manganese chloride luminescence with increased excitation intensity

SOURCE: Optika i spektroskopiya, v. 19, no. 5, 1965, 830-831

TOPIC TAGS: luminescence quenching, luminescent crystal, luminescence center, luminophor

ABSTRACT: The authors investigate the excitation by strong light of monomolecular luminophors in the intermediate excitation intensity region where the probability of forced emission becomes equal to the probability of spontaneous emission (the case of "superluminescence"). The radiation centers in luminescent crystals used normally for the generation of emission of superluminescence appear usually in "diluted" concentrations. The present note deals with the kinetic characteristics of luminosity in the intermediate region for a system of "undiluted" concentration of luminous centers, i. e., for monomolecular luminophors of the "pure salt" type. Measurement results are presented for the quenching time τ and the radiation yield η as a function of the excitation intensity E

Card 1/2

UDC: 535.373.2

L 11589-66

ACC NR: AP5027683

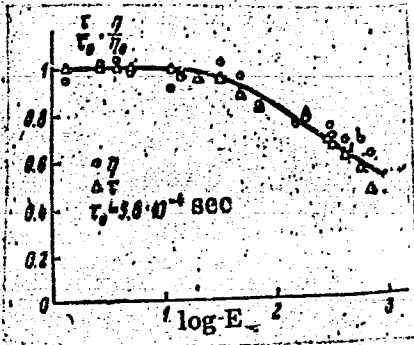


Fig. 1. Quenching time τ and radiation yield μ as a function of excitation intensity E.

for dehydrated MnCl_2 shown in Fig. 1. The relaxation time was measured by means of a pulsed τ -meter. Results indicate that the decrease (with increased E) in τ is not related to superluminescence but only to the increase in the probability of radiation-free transitions. This new type of quenching is not related to any heating of the sample nor can it be related to any specific quenching action of the exciting light. The possible reasons for the appearance of this new type of quenching are discussed and it is pointed out that such quenching has also been observed in some other systems with "undiluted" concentration of luminous centers, e.g., in uranyl salts. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 23Apr 65

Card 2/2 FW

L 24266-66 EWT(l)/EWT(m)/EWP(e) IJP(c) WH

ACC NKG AP6007013

SOURCE CODE: UR/0051/66/020/002/0345/0346

AUTHOR: Tolstoy, N. A.; Abramov, A. P. 53

ORG: none B

TITLE: Nonlinear quenching of the luminescence of ruby under intense excitation

SOURCE: Optika i spektroskopiya, v. 20, no. 2, 1966, 345-346

TOPIC TAGS: ruby, luminescence quenching, optic center, light excitation, light absorption, activated crystal, relaxation process, temperature dependence, luminescence spectrum

ABSTRACT: This is a continuation of earlier work (Opt. i spektr. v. 19, 830, 1965), where a new type of luminescence quenching, connected with interaction between excited centers, was discovered. To check whether this nonlinear quenching is connected in some way with the spatial proximity of excited states which originate in the initial act of absorption of the exciting light, the authors carried out experiments to determine whether nonlinear quenching occurs in the activated crystals whose radiation centers are diluted. The tests were made on powdered synthetic ruby containing a high concentration of chromium (2.5%). Measurements were made of the yield and relaxation, using the same experimental apparatus as in the earlier study. A pulse method for measuring yield was employed, and will be described later. Plots were taken of the decay time of the R line of ruby as a function of temperature in both weak and intense excitation, of the yield and initial decay time as functions of the intensity of the exciting light. The decay time was practically uniform over the

Card 1/2

UDC: 621.375.9: 535.004.14 2

L 24266-66

ACC NR: AF6007013

entire spectrum at all temperatures, owing to the high chromium concentration. The nonlinear quenching was observed not only in the region of the R lines, but also in the remaining parts of the luminescence spectrum. This quenching was manifest in a nearly two-fold reduction of the decay time with increase in intensity. The nonlinear quenching is observed at lower concentrations, too, down to 0.5%. However, other conditions being equal, it becomes weaker as the chromium concentration decreases. This concentration dependence will be investigated in a later paper. It is concluded that the new type of quenching is not a characteristic of pure salts only with undiluted radiation centers, but can also occur in activated crystals with a low concentration of luminescence centers. This result is of importance for establishing the mechanism whereby excited states interact to produce nonlinear quenching of luminescence. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 12May65/ ORIG REF: 001

Card 2/2 dda

L 31507-66 EWT(m)/EWP(t)/ETI IJP(c) JD/WH/JG
ACC NR: AP6013037 SOURCE CODE: UR/0051/66/020/004/0742/0744

AUTHOR: Tolstoy, N. A.; Abramov, A. P.; Abramova, I. N.

ORG: none

TITLE: Binary centers produced by light in uranyl salts

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 742-744

TOPIC TAGS: uranyl nitrate, uranium compound, luminor, luminescence center, fluorescence quenching, low temperature research, relaxation process, excited state, *LIGHT EXCITATION*

ABSTRACT: This is a continuation of earlier work (Opt. i spektr. v. 20, 496, 1966 and earlier), dealing with a newly observed nonlinear extinction of monomolecular luminors when exposed to high-intensity light. This extinction is strongly pronounced in uranyl salts. The present note reports another unique phenomenon observed by the authors in uranyl salts excited with ultraviolet at low temperature, wherein prior excitation with a strong uv dose at liquid-nitrogen temperature causes a decrease in the stationary glow brightness and the relaxation time. This decrease is ascribed to the formation of some centers in the uranyl salt. These centers remain stable so long as the temperature remains low. The phenomenon was

Card 1/2

UDC: 535.370

L 31507-66

ACC NR: AF6013037

observed in uranyl sulfate, uranyl nitrate, and cesium-uranyl nitrate, and was strongest in the latter. Measurements of the relative relaxation times and an analysis of the data indicate that the formation of the centers is a nonlinear process, and that the centers are binary combinations of excited state, but an explanation of the effect calls for more research. Orig. art. has: 1 figure and 1 table.

SUB CODE: 20/ SUBM DATE: 27Sep65/ ORIG REF: 003

Card 2/2 mc

L 39105-66 LBI(m)/BNP(j) AM

ACC NR: AP6030373

SOURCE CODE: UR/0051/66/020/006/1030/1039

AUTHOR: Tkachuk, A. M.; Tolstoy, N. A. 32
L

ORG: none

TITLE: Optical properties of platinocyanide compounds. III. Luminescence of frozen solutions. Concentration dependences

SOURCE: Optika i spektroskopiya, v. 20, no. 6, 1966, 1030-1039

TOPIC TAGS: platinum compound, cyanide, luminescence spectrum

ABSTRACT: The article investigates luminescence spectra and relaxation spectra of frozen aqueous solutions of calcium, barium, and lithium platinocyanide. It is shown that luminescence properties of frozen solutions depend on the dimensions of formations obtained in the solution during freezing. Given low concentrations ($C \leq 5 \cdot 10^{-7}$ mol/mol) in the frozen solution, there form monomers and dimers consisting of one or two complex ions with a charge which can be compensated by cations of the dissolved salt or by protons of water. The luminescence of frozen solutions of average concentration ($5 \cdot 10^{-7} \leq C \leq 5 \cdot 10^{-6}$ mol/mol) is due to seeds consisting of a small number of molecules of the dissolved salt (from 3 to 20). The luminescence of frozen solutions of high concentration ($C \geq 5 \cdot 10^{-6}$ mol/mol) is caused by the luminescence of the microcrystals of frozen salt which precipitate during freezing of the solution. Luminescence spectra contain a band characteristic of macrocrystals with some quantity of water of crystallization. Orig. art. has: 4 figures and 1 table. [JPRS: 36,866]

SUB CODE: 07, 20 / SUBM DATE: 20Mar65 / ORIG REF: 004 / OTH REF: 001

Card 1/1 ¹⁹⁷⁸UDC: 535.37:532.77(206.1)
1978 1096

L 04829-67 EWP(j)/EWT(m) RM

ACC NR: AF6026968

SOURCE CODE: UR/0051/66/021/002/0171/0177

AUTHOR: Tolstoy, N. A.; Abramov, A. P.

35
B

ORG: none

TITLE: Luminescence of uranyl salts at an increased level of optical excitation

SOURCE: Optika i spektroskopiya, v. 21, no. 2, 1966, 171-177

TOPIC TAGS: uranium compound, luminescence center, luminescence quenching, UV irradiation, LIGHT EXCITATION

ABSTRACT: The kinetics of photoluminescence of uranyl salts at an increased excitation level were studied by using IFK-120 and ISK-25 flash lamps with a UFS-2 ultraviolet filter. The salts were coarsely crystalline powders of $Cs[UCO_2(NO_3)_3]$, $UO_2 \cdot SO_4 \cdot 2H_2O$ in the form of layers held between quartz plates, and also $UO_2(NO_3)_2 \cdot 6H_2O$ in the form of a thin layer fused in between quartz plates. The relaxation time τ and relative yield η were found to decrease with rising excitation intensity. It is shown that this phenomenon cannot be accounted for by the heating of the luminophor under the influence of the exciting light, but constitutes a new type of quenching ("quenching of the third kind") due to an increase in the probability of nonradiative transitions with increasing concentration of the excited luminescence centers. The observed phenomena cannot be alternatively interpreted as being the result of an increase in the probability of radiative transitions or of an apparent decrease in

Card 1/2

UDC: 535.37

L 04829-67

ACC NR: AP6026968

yield due to the increased transparency of the substance subjected to strong excitation. The nonexponential character of the law of luminescence quenching at the increased excitation level is demonstrated. It is postulated that the phenomena described are due to the meeting of migrating excitations on a single luminescence center. Orig. art. has: 5 figures and 9 formulas.

SUB CODE: 20/ SUEM DATE: 23Apr65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 *gd*

ACC NR: AP/000025

SOURCE CODE: UR/0051/66/021/005/0555/0563

AUTHOR: Tolstoy, N. A.; Tkachuk, A. M.

ORG: none

TITLE: Optical properties of platinocyanide compounds. V. Luminescence of solutions frozen into porous glasses

SOURCE: Optika i spektroskopiya, v. 21, no. 5, 1966, 555-563

TOPIC TAGS: platinum compound, cyanide, optic property, luminescence, emission spectrum

ABSTRACT: The purpose of the investigation was to check by means of an independent experiment some conclusions derived in an earlier part of the investigation (Opt. i spektr. v. 20, 1030, 1966) that the emission spectra of frozen-in solutions of platinocyanides depend strongly on the concentration of the dissolved substance. The idea of the experiment consists of introducing the investigated aqueous solution into porous glass having a known pore diameter. Inasmuch as exchange of ions between pores is difficult, the crystallization of the dissolved substance in each pore is determined by the amount of substance per pore, which in turn depends on the volume of the pore and the concentration of the solution. This makes it possible to prepare beforehand various dimers and monomers of the investigated substance and to establish their emission spectra. The tests were made on aqueous solutions of barium, magnesium, and ytterbium platinocyanides. Attention is called to a curious quantitative result

Card 1/2

UDC: 535.37

ACC NR: AP7000025

of the experiment, namely that the intensity of the dimer band increases with concentration, whereas the intensity of the monomer band remains approximately constant. This confirms that a dimer actually consists of two monomers. It is demonstrated that the experiments with porous glass make it possible to reproduce all the phenomena observed in freezing-in of free solutions of small concentrations, but to operate with large concentrations. The emission spectra are shown to depend in this experiment not only on the concentration of the solution but also on the dimension of the pores. The dependence of the emission spectrum on the dimensions of the pores is analyzed from the point of view of the single-center model developed in earlier parts of the investigation (Opt. i spektr. v. 17, no. 4 and no. 5, 1964). Orig. art. has: 5 figures and 2 tables.

SUB CODE: 20/ SUBM DATE: 29Mar65/ ORIG REF: 005

Card 2/2

DOLITSKIY, V.A.; KUCHERUK, Ye.V.; TOLSTOY, N.S.; SHEREMET'YEV, Yu.F.

Structural map of the northeastern part of Volgograd Province.
Izv.vys.ucheb.zav.; geol. i razv. 6 no.11:143-148 N '63.

(MIRA 18:2)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. I.M.Gubkina i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

DOLITSKIY, V.A.; KORCHEV, G.P.; SMIRNOV, A.V.; TOLSTOY, N.S.

Mesozoic sediments of the Korobki field in connection with their gas potential. Izv. vys. ucheb. zav.; neft' i gaz 5 no.1:6-12 '62. (MIRA 16:11)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M. Gubkina, Volgogradskiy nauchno-issledovatel'skiy institut neftyanoy i gazovoy promyshlennosti, i Kompleksnaya ekspeditsiya Glavnogo upravleniya geologii i okhrany neдр pri Sovete Ministrov RSFSR.

TOLSTOY, M.P., prof.

More about underground "seas." Priroda 52 no.7:119-120 JI '63.
(MIRA 16:8)

1. Moskovskaya sel'skokhozyaystvennaya akademiya im.
K.A.Timiryazeva.

(Water, Underground)

TOLSTOY, V., podpolkovnik

Closed radio circuit. Vest. 41 no. 11:104-105 N '61.
(MIRA 16:11)

S/018/63/000/001/001/003
A004/A126

AUTHOR: Tolstoy, V., Lieutenant-Colonel

TITLE: Talking on the initial training of radio operators

PERIODICAL: Voyenny vestnik, no. 1, 1963, 99 - 102

TEXT: The author reports on a new method developed by him for the universal training of radio operators within a shorter period of time. He describes the training methods used hitherto and then presents the various exercises that are to be carried out by radio operator trainees according to the new method. At the end of the training period on the training grounds, the young radio operator should be able to meet the standard requirements of a radio operator 3rd class. The author recommends conducting the training of communication specialists up to the 3rd-class standard in a centralized manner in special training units, while subsequent training should be carried out in ordinary drill units. ✓

Card 1/1

TOLSTYAKOV, Ye.N.

Hypochondriac states in chronic dysentery. Vop.psikh.i nevr.
no.7:175-181 '61. (MIRA 15:8)
(HYPOCHONDRIA) (DYSENTERY)

TOLSTOY, N.A.; YEPIFANOV, M.V.

Multilamp source of modulated light for a pulsed tau-meter. Opt.1
spektr. 13 no.2:291-294 Ag '62. (MIRA 15:11)
(Optical instruments) (Electric lamps)

TOLSTOY, N.A.; OSIPOV, B.S.; FOMIN, G.A.

Change of the photo-emf sign in copper oxide. Fiz.tver.tela 4
no.7:1966-1967 J1 '62. (MIRA 16:6)

1. Gosudarstvennyy opticheskiy institut imeni S.I.Vavilova,
Leningrad.

(Photoelectricity) (Copper oxide)

24.2600

43119
S/181/62/004/011/018/049
B104/B102

AUTHORS: Tolstoy, N. A., Khil'ko, G. I., Ryskin, A. I., and Trusov, A. A.

TITLE: The relation between the luminescence and photoelectric properties in a ZnS-Mn phosphor

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3177 - 3184

TEXT: The object here is to establish quantitative and kinetic relations between photoelectric aspects and the luminescence of the photo-semiconduction mechanism in the ZnS-Mn phosphor, which has the property of scintillative deexcitation of luminescence. ZnS-Mn (10^{-3} g/g) placed in a capacitor is excited by two successive light flashes from two flash lamps positioned in front of a concave mirror. The interval between the light pulses is varied automatically from 0.1 to 10 sec. Intervals greater than 10 sec are regulated by hand. The first ultra-violet light pulse produces in the capacitor a current pulse corresponding to the motion of electrons in the direction of the incident beam. The second yellowish-green light pulse produces a signal whose amplitude depends on the time interval $t_{\text{dark}} \equiv t_d$ between the two light pulses. It reaches a maximum for a certain time Card (1/3)

The relation between the luminescence...

S/181/62/004/011/018/049
B104/B102

interval t_{\max} . t_{\max} increases rapidly with decreasing temperature; for $t_{\max} \rightarrow \infty$ the signal amplitude becomes zero. For $t_d \ll t_{\max}$ the signal excited by the second pulse has opposite sign to that excited by the first light pulse. With increasing t_d ($t_d \ll t_{\max}$) the signal of the second pulse becomes negative and goes through a maximum. The amplitude of the signal of the second light pulse is proportional to the light pulse but is independent of the ultra-violet light impulse. The signal of the second light impulse arises from the density gradient of the carriers localized in the excited state. The signs of the signals are the same for both light pulses. If, in the interval between the light pulses, infra-red light falls on the phosphor, t_{\max} becomes shorter. Further, t_{\max} depends on T in practically the same way as the scintillative deexcitation of the red luminescence band of this phosphor. Both effects are interpreted as being due to the relocalization of the holes from the centers of the blue luminescence to those of the red. The depth of the "blue" hole levels is 0.67 eV and their frequency factor is $\approx 0.7 \cdot 10^{13} \text{ sec}^{-1}$. There are 4 figures.

Card 2/3

The relation between the luminescence...

S/181/62/004/011/018/049
B104/B102

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S. I. Vavilova,
Leningrad (State Optical Institute imeni S. I. Vavilov,
Leningrad)

SUBMITTED: June 21, 1962

✓

Card 3/3

ТОПОТОВ, В.Н.; ТРУБАЧЕВ, О.Н.; ТОЛСТОЙ, Н.И., отв. ред.; ДЫБО, В.А.,
ред. изд-ва; ВОЛКОВА, В.Г., техн. ред.; ГОЛУБ', С.П., техн.
ред.

[Linguistic analysis of hydronyms for the upper Dnieper Valley]
Lingvisticheski analiz gidronimov Verkhnego Podneprov'ia. Mo-
skva, Izd-vo Akad. nauk SSSR, 1962. 266 p. [Maps 1-13] Karty
1-13. (MIRA 15:7)

(Dnieper Valley--Names, Geographical)

TOLSTOY, S.

Colored glass. Znan. sila no.5:25-28 My '55. (MLRA 8:6)
(Glass painting and staining)

TOLSTOY, S., inzh.

In the Technical Council of the Ministry of Grain Products of the
U.S.S.R. Muk.-elev. prom. 24 no.1:27-29 Ja '58. (MIRA 11:2)
(Grain--Storage)
(Grain milling)

TOLSTOY, N.A.; ABRAMOV, A.P.

Luminescence kinetics of chromium luminophors. Part 7: Ruby
(Section 3). Interaction of chromium ions. Steady-state
luminescence. Opt. i spektr. 14 no.5:691-699 My '63.
(MIRA 16:6)

(Rubies—Spectra)
(Chromium—Spectra)

LEVIN, L.E.; SEYFUL'-MULYUKOV, R.B.; TOLSTOY, N.S.

Basement pattern in the southeastern part of the Russian Platform reflected in the structure of the sedimentary cover in connection with prospecting for oil and gas. *Izv. AN SSSR. Ser. geol.* 29 no.12:62-71 (MIRA 18:1) D '64.

1. Nauchno-issledovatel'skaya laboratoriya geologicheskikh kriteriyev po otsenke perspektiv neftegazonosnosti ("NILNEFTEGAZ"), Moskva.

SEYFUL'-MULYUKOV, R.B.; TOLSTOY, N.S.; SHEREMET'YEV, Yu.F.

Structural manifestation of the tectonic elements in the Mesozoic sediments in the Volga Valley portion of Volgograd Province. (MIRA 17:3)
Neftegaz.geol.i geofiz, no.9:9-14 '63.

1. Nauchno-issledovatel'skaya laboratoriya geologicheskikh krigeriyev otsenki perspektiv neftegazonosnosti Gosudarstvennogo geologicheskogo komiteta SSSR.

TOLSTOY, S., inshener.

The story of flour. Znan.sila no.1:16-20 Ja'55. (MIRA 8:3)
(Flour)

TOLSTOY, S., inzhener.

Storage of grain. Znan.sila no.8:9-13 Ag '54. (MIRA 7:8)
(Grain--Storage)

TOLSTOY, S.S. and B.N. EVANS.

Anglo-russkii slovar' po chernoj metallurgii;
Moskva, Gostekhizdat, 1934. 224 p.

English-Russian dectionary of terms relating to ferrous metalurgy.

DLC: TN609.T6

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

TOLSTOY, V., podpolkovnik; LEGGTSKIY, L., mayor; RUTSKOY, A., podpolkovnik

Let's talk about elementary training of radiotelegraph operators.
Voen. vest. 42 no.1:99-105 Ja '63. (MIRA 17:4)

TOLSTOY, V. (Gor.Sukhuni)

Radio operator crew chief. Grazhd,av. 12 no.9:5-6 S '55.

(MIRA 10:7)

(Vorob'ev, Sergei)

TOLSTOY, V.I.

[Swine breeding on the V.M. Molotov Collective Farm] Svinovodstvo
kolkhoza imeni V.M. Molotova. Moskva, Gos. izd-vo selkhoz lit-ry,
1952. 99 p. (MIRA 11:10)

(Vladimir Province--Swine)

TOLSTOY, Vladimir Il'ich (Selo Troitskoye, Moskovskoy oblasti)

This is the way we make friends with birds. IUn.nat. no.4:2-3 Ap '59.
(MIRA 12:3)

(Birds)

TOLSTOY, V.S., inzhener.

Double cantilever crane with a load capacity of 120 tons and
experience in operating it. Mekh.stroi.13 no:4:11-14 Ap '56.
(Cranes, derricks, etc.) (MLRA 9:7)

MONAKHOV, N.I., inzh., glavnyy red.; TURIANSKIY, M.A., inzh., zamestitel' glavnogo red.; KUDRYAVTSEV, Ye.S., inzh., red.; TOLSTOY, V.T., red.; KHAVIN, B.N., red.izd-va; RUDAKOVA, N.I., tekhn.red.

[Collection No.33 of consolidated cost indexes of buildings and structures of commercial enterprises to be used in re- valuating capital assets] Sbornik no.33 ukрупnennykh pokazatelei stoimosti zdaniy i sooruzheniy torgovykh predpriyatii dlia pereotsenki osnovnykh fondov. Moskva, Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam. Moskva, 1959. 157 p.
(MIRA 13:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.

(Mercantile buildings)

MONAKHOV, N.I., inzh., glavnyy red.; TURIANSKIY, M.A., inzh., zam.
glavnogo red.; PETRISHCHEV, V.I., inzh., red.; TOLSTOY, V.T.,
red.; SHUSTOVA, L.M., red.izd-va; MEDVEDEV, L.Ya., tekhn.red.

[Collection No.18 of consolidated cost indexes of buildings
and structures to be found in various branches of the national
economy for use in the revaluation of capital assets] Sbornik
no.18 ukрупnennykh pokazatelei stoimosti zdaniy i sooruzheniy,
imeyushchikhsya vo mnogikh otraslyakh narodnogo khozyaystva,
dlya pereotsenki osnovnykh fondov. Moskva, Gos.izd-vo lit-ry
po stroit., arkhitekt. i stroit.materialam, 1959. 144 p.

(MIRA 12:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam
stroitel'stva.

(Industrial buildings)

ANDRIANOV, V.P., inzh.; DZHALALOV, G.G., inzh.; TOLSTOY, V.V., inzh.

Transmission of data to a railroad computer center. Avtom., telem.
i. sviaz' 9 no.8:10-15 Ag '65. (MIRA 18:9)

Library V.Y.

High-voltage polarization in polycrystalline titanium di-
oxide. S. I. Gorelik and V. E. Tolstol. State Univ.

TOLSTOY, Yu.G., doktor tekhnicheskikh nauk, professor (Moskva); POLOVOY, I.P.,
~~professor~~ tekhnicheskikh nauk (Leningrad)

Prospective uses of d.c. power transmission in the Soviet Union.
Elektrichestvo no.9:69-72 S '57. (MLRA 10:8)
(Electric power distribution)

TOLSTOY, Yu.G.; PIROGOVA, N.V.; KAMENSKAYA, V.P.

Various questions of the technology and current - voltage characteristics of germanium power rectifiers. Izv.vys.ucheb. zav.; fiz. no.5:35-40 ' 58. (MIRA 12:1)

1. Energeticheskiy institut imeni G.M.Krzhizhanovskogo AN SSSR.
(Germanium) (Electric current rectifiers)

1. TOLSTOY, Yu. K.
2. USSR (600)
4. Jurisprudence
7. Problem of guaranteeing subjective civil rights.
Vest. Len. un., 7 No.3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

CA 4

PROCESSES AND PROPERTIES MOFF

Separating molybdenum from its alloys with nickel obtained as by-product in the manufacture of radio tubes. etc. N. S. Potasukhin. Russ. 61,302, Jan. 31, 1941. The alloy is anodically dissolved and the Ni pptd. as a dense cathodic film with passivating skins. of $Hg(NO_3)_2$ or $HgCl_2$ in amts. of 0.05 to 1 g./l.

AIN-11A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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USSR/Mathematics - Review

Mar/Apr 52

"Review of A. F. Berman's Book 'Course of Mathematical Analysis,'" G. P. Tolstoye

"Uspekhi Matemat Nauk" Vol VII, No 2 (48), pp 206-214

Part 1 is 564 pp, 6th edition; part 2 is 443 pp, 4th edition. Published by Gostekhizdat, Moscow/Leningrad, 1950. Accepted by the Min of Higher Education as textbook for higher tech schools. Contents are: concept of functions; concept of limits; derivative and differential; functions and curves; definite integral; indefinite integral; improper integral; application of integrals; series:

214761

functions of several variables; application of differential calculus; multiple integrals and repeated integration; curvilinear integral and surface integral; differential equation; Fourier series.

TOLSTOYE, G. P.

214761

TOLUBINSKIY, Vsevolod Ivanovich; KOCHEREZHKO, Aleksandr Nikanorovich;
REMNENIK, T.K., red. izd-va; LIBERMAN, T.R., tekhn. red.

[Mechanization of the firing of solid fuels in industrial boiler systems] Mekhanizatsiia szhigania tverdykh topliv v promyshlennykh kotel'nykh ustanovkakh. Kiev, Izd-vo Akad. nauk USSR, 1961. 110 p.

(Boilers--Firing)

(MIRA 14:11)

TOLSTOBROV, V.N., mashinist ekskavatora

We are working for the sixth year of the seven-year plan. Transp.
stroil. 13 no.10:44 0 '63. (MIRA 17:8)

1. Trest Sibstroyemekhanizatsiya.

TOLSTUKHA, A.

The way we deliver timber props to the mine. Mast. ugl. 4
no.1:7 Ja '55. (MLRA 8:6)

1. Brigadir lesogonov kotershchikov.
(Mine timbering)

BODROV, G.D., inzhener; TOLSTUKHIN, I.P.

Manufacture of reinforced concrete box flooring. Sbor.nat.o nov.
tekhn.v stroi. 16 no.2:13-15 '54. (MLRA 7:5)
(Floors, Concrete)

Country : USSR
Category: Soil Science. Cultivation Improvement.
Erosion.

J

Abs Jour: RZhBiol., No 14, 1958, No 63128

Author : Kosheleva, I. T.; Tolstukhina, A.S.
Inst : -
Title : Problem of Soil Cultivation in Northern
Priob'ye.

Orig Pub: Pochvovedeniye, 1957, No 2, 72-82

Abstract: Methods of cultivating the soils of Northern
Priob'ye were investigated. Gleyey-podzolic,
light-loamy soil under scrub-mossy-lichen tundra
(Salekhardskaya Station), superficially gleyey-weak-
ly-podzolic, average-loamy soil under a young cedar
canopy (Berezhovskaya Station), and superficially

Card : 1/4

J-59

J

Country : USSR
Category: Soil Science. Cultivation. Improvement
Erosion.

Abs Jour: RZhBiol., No 14, 1958, No 63128

Gleyey-podzolic average-loamy soil under cedar green German spruce (Colutea) [7] (Khanty-Mansiyskaya Station) were compared with their cultivated variants. The following agrochemical soil indices are presented: pH, exchange acidity, content of exchangeable Ca and Mg, of total N, of active forms of P and K, of humus, and of the group and fractional composition of the humus. The general features of the cultivation of soils (of the Khanty-Mansiyskaya Station, for example, where the biological rotation of matter in cultivated soils is most intensive) are: an increase

Card : 2/4

Country : USSR
Category: Soil Science Cultivation. Improvement.
Erosion.

J

Abs Jour: RZhBiol , No 14, 1958, No 63128.

in exchangeable bases (0.6 in virgin soil and 20.0 milli-equivalents in cultivated soil), total N (0.09 and 0.49%), and P by a factor of three; a lowering of acidity (pH is 4.4 and 6.4). The humic acid content in cultivated soils is $1\frac{1}{2}$ - $2\frac{1}{2}$ times as large, the C ratio of both humic and fulvic acids changes (according to Salekhard, for example, it reached 1.4). In cultivated soils the fraction of active humic acids predominates. A deficiency of Ca in the soils reduces their biological activity. There are recommended the development of grass seeding instead of the economically unprofitable application of large doses

Card : 3/4

J-60

Country : USSR
Category: Soil Science. Cultivation. Improvement.
Erosion.

Abs Jour: RZhBiol , No 14, 1958, No 63128.

of manure (about 100 tons/hectare) and the use of
microfertilizers as outside-root dressing. Biblio-
graphy of 13 titles. -- G.S. Goppe

Card : 4/4

TOLSTUKHINA, A.S.

KOSHELEVA, I.T.; TOLSTUKHINA, A.S.

Soil cultivation in the northern Ob Valley [with summary in
English]. Pochvovedenie no.2:72-78 F '56. (MLRA 10:5)

1. Pochvennyy institut im. V.V. Dokuchayeva Akademii nauk SSSR.
(Ob Valley--Soils)

68702

S/069/60/022/01/008/025
D034/D003

5* 15.9220

AUTHORS: Novikov, A.S., Tolstukhina, F.S.

TITLE: The Effect of Fillers on the Properties of Poly-
dimethylsiloxane 15

PERIODICAL: Kolloidnyy zhurnal, 1960, Vol XXII, Nr 1, pp 42-48(USSR)

ABSTRACT: This is a study of the effect of silica fillers on the structure and mechanical properties of polydimethylsiloxane rubber mixtures and vulcanizates. The authors used the following fillers; aerosil, ultrasil, microsil, powdered silica gel, and also titanium dioxide. The weak molecular interaction, which is characteristic for polydimethylsiloxane, makes it a suitable object for investigation, because it permits observation of very inconsiderable changes in its mechanical properties. The interaction of polymer and filler was characterized by elementary analysis of the quantity of bound rubber

4

Card 1/3

68702

S/069/60/022/01/008/025
D034/D003

The Effect of Fillers on the Properties of Polydimethylsiloxane

in the gel and by the number of effective chains of the gel network. The effect of the arising structures on the mechanical properties of the polymer-filler mixture was investigated by measurement of the development and fall of creep. The structure of the vulcanizates was determined from their swelling characteristics and by the apparent equilibrium modulus of elasticity. On preparing the mixture by mastication the silica fillers form stable chemical polymer-filler bonds. The activity of the investigated fillers decreases in the order: aerosil, ultrasil, powdered silica gel, microsils. It was further found that the chemical polymer-filler bonds are not only preserved, but increase during the vulcanization process. The rheological curves for filled mixtures deviate the more from the straight lines which are characteristic for Newtonian liquids,

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S/069/60/022/01/008/025
D034/D003

The Effect of Fillers on the Properties of Polydimethylsiloxane

the more rubber will be linked to the fillers. The number of the forming polymer-filler bonds increases linearly in dependence on the volume of the introduced filler. The mechanical properties of the vulcanizates are higher, the greater the capacity of the filler for structuration. The authors mention a dynamometer of the type Polyan' ("dinamometer tipa Polyani"), which was used for the measuring of stresses in vulcanizates. There are 6 sets of graphs, 4 tables and 9 references, 6 of which are English and 3 Soviet.

ASSOCIATION: Institut rezinovoy promyshlennosti, Moskva (Institute of the Rubber Industry, Moscow)

SUBMITTED: December 23, 1958

Card 3/3

NOVIKOV, A.S.; TOLSTUKHINA, F.S.; KOLESNIKOVA, N.N.

Creep of the SKF-26 vulcanizates. *Kauch. i rez.* 23 no.5:8-14 My '64.
(MIRA 17:9)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.

S/138/62/000/005/004/010
A051/A126

AUTHORS: Novikov, A.S.; Tolstukhina, F.S.; Kolesnikova, N.N.

TITLE: Creep in vulcanizates based on the Weighton A type polymer

PERIODICAL: Kauchuk i rezina, no. 5, 1962, 9 - 14

TEXT: A study was made of creep-determining processes in vulcanizates based on the Weighton A type polymer. The creep phenomenon was studied for the stationary section of the curve: deformation versus vulcanizate creep at a constant tension. The effect of number and type of transverse bonds, of temperature and fillers on the creep process, were investigated, in addition to structural changes taking place in the vulcanizates under the effect of tension and temperature. A lever-type instrument was used for the experiments and a Co⁶⁰ source for producing radiation vulcanizates. The following general conclusions are drawn: The creep of the vulcanizates and the accumulation of true residual deformations depend on the structure of the vulcanizate, the number of transverse bonds. An increase of transverse bonds leads to a drop in the creep rate and to an accumulation of residual deformations. The creep of vulcanizates on

Card 1/2

Creep in vulcanizates based on the

S/138/62/000/005/004/010
A051/A126

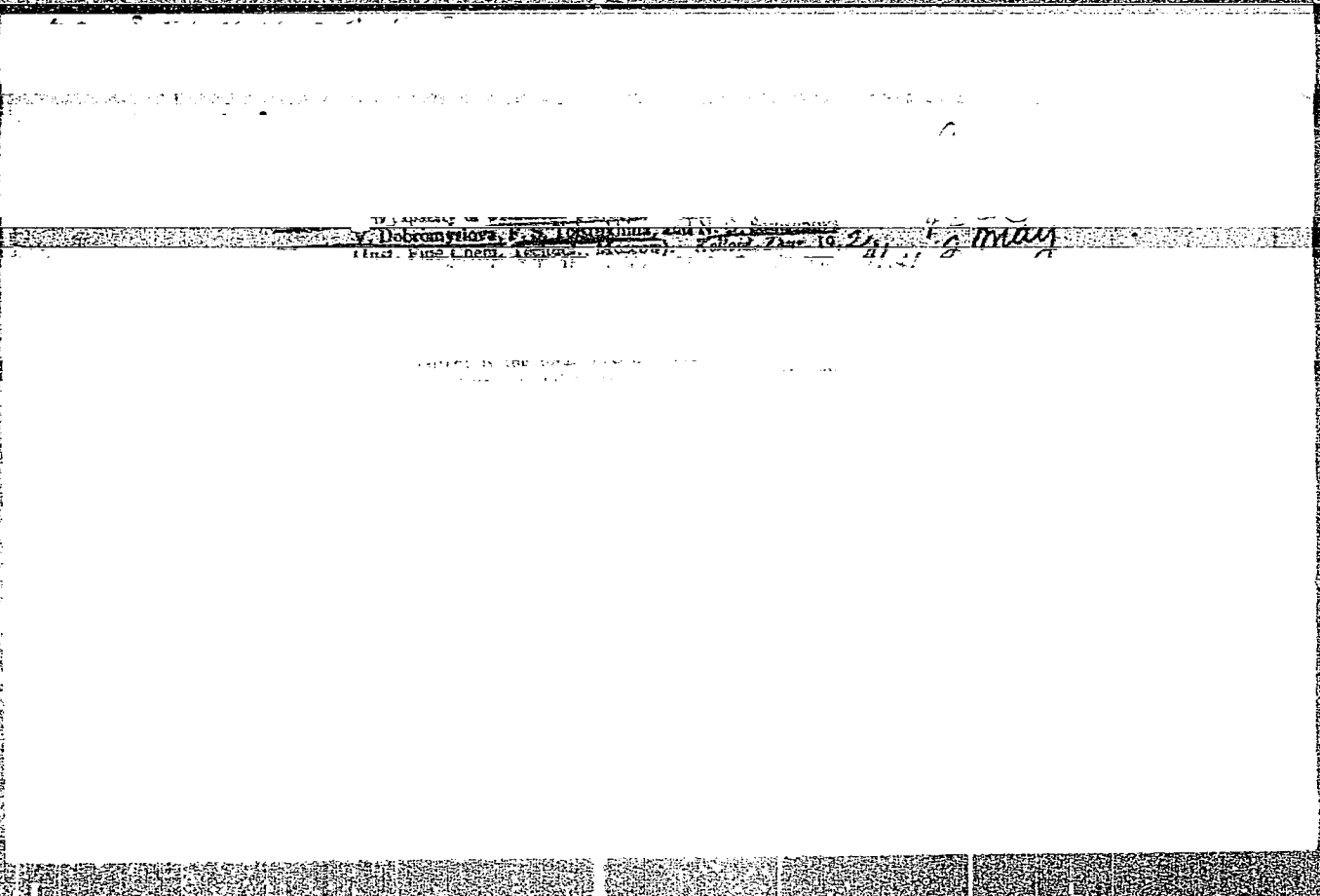
the stationary section is determined by the tearing process and by restoration of the transverse bonds. The introduction of ПП-40 (PG-40) furnace carbon black reduces the creep rate and the accumulation of residual deformations in vulcanizates based on Weighton A. The apparent activation energy of the creep process on the stationary section, for non-filled and filled amine vulcanizates is the same, indicating the similar nature of the elementary acts, responsible for the creep of vulcanizates.

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

Card 2/2

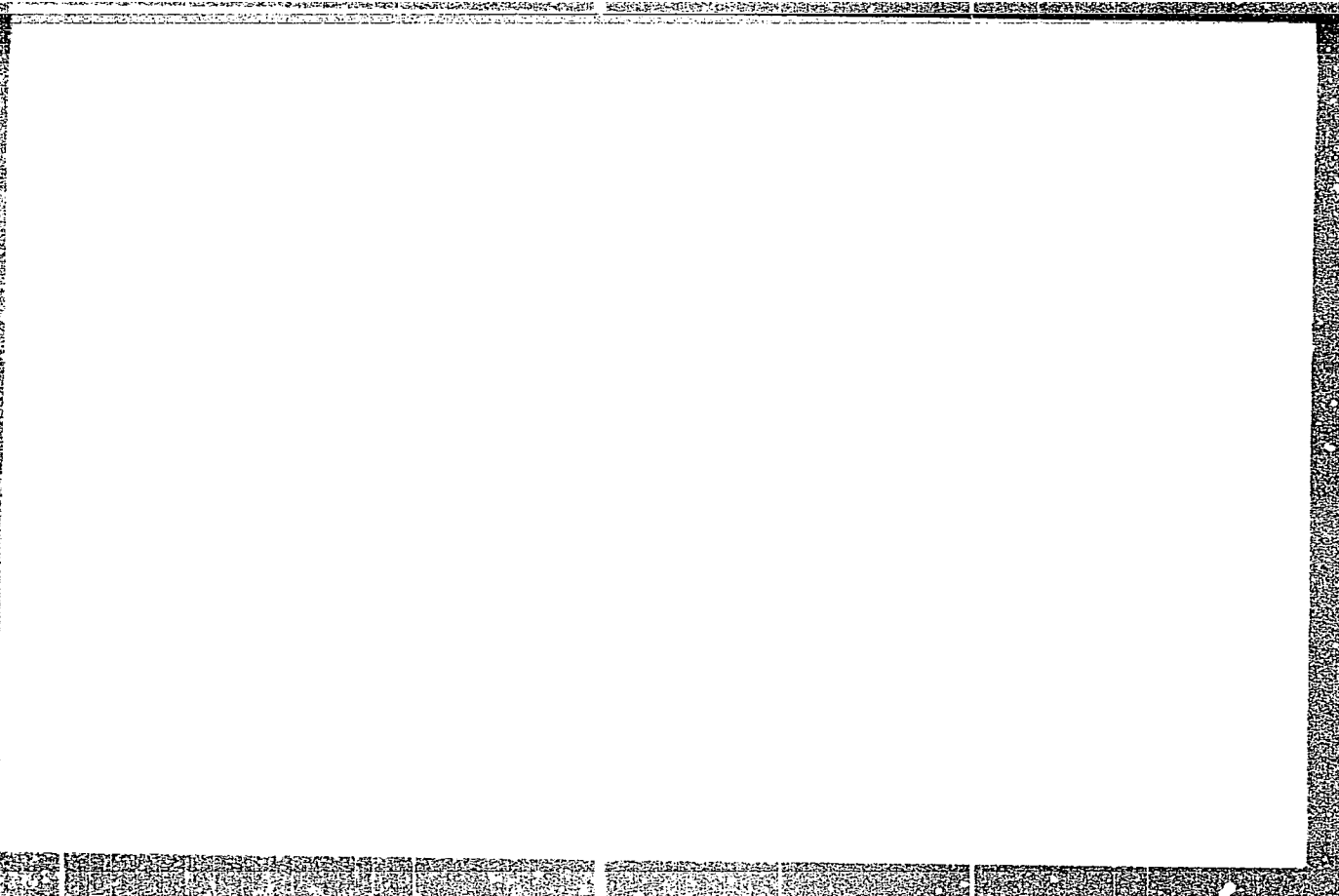
NOVIKOV, A.S.; TOLSTUKHINA, E.S.

Plastoelastic properties of the SKI-26 rubber [with summary in
English]. Kell. zhur. 20 no.3:361-367 '58. (MIRA 11:8)
(Rubber--Testing)



"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756120018-0



APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756120018-0"

ACCESSION NR: AP4038907

S/0138/64/000/005/0008/0014

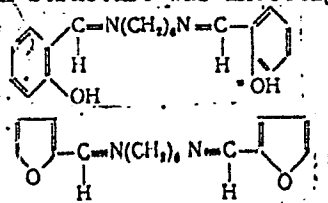
AUTHORS: Novikov, A. S.; Tolstukhina, F. S.; Kolesnikova, N. N.

TITLE: Creep in vulcanized rubber SKF-26

SOURCE: Kauchuk i rezina, no. 5, 1964, 8-14

TOPIC TAGS: vulcanized rubber, relative deformation, argon, creep process, oxygen concentration, rubber SKF 26

ABSTRACT: The effect of air and argon on SKF-26 vulcanized rubber creep with various vulcanization bonds and identical molecular chain structure was investigated. The types of vulcanized rubbers tested were: types GMDA,



tin diethylditiocarbamate, and benzoyl peroxide. Relative deformation versus time curves were obtained for all rubber specimens at various temperatures (180-260C) both in air and in argon. The results show a significant decrease in the actual
Card 1/2

ACCESSION NR: AP4038907

residual deformation rate slopes and consequently, in creep rate, the decrease being five times as much in argon as in air. The apparent activation energy E_a of the creep process in rubber is calculated. For GMDA type 1 rubber, $E_a = 14.6$ kcal/mol in air, and 15.4 in argon. The closeness of these two values indicates an identical creep process in air and in argon. The greater decrease in creep rate in argon, as compared to air, seems to be caused by an oxygen concentration effect. E_a measurements also indicate that the most stable vulcanized rubber, with $E_a = 30$, is the C-C-bond in the peroxide specimen and that the least stable is the GMDA specimen. Orig. art. has: 8 figures, 3 tables, and 1 formula.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promy*shlennosti
(Scientific Research Institute of the Rubber Industry)

SUBMITTED: 00

DATE ACQ: 05Jun64

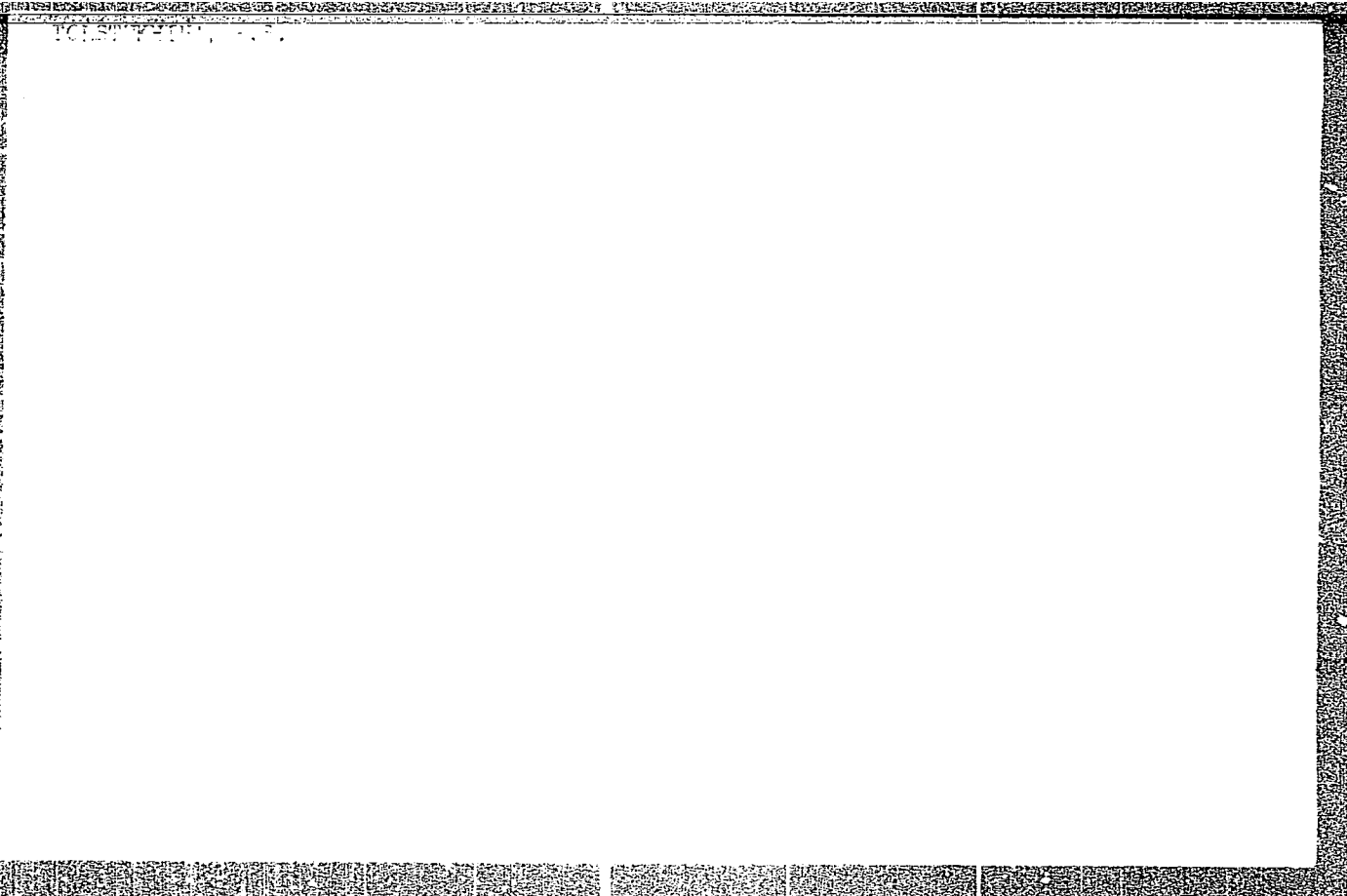
ENCL: 00

SUB CODE: MT

NO REF SOV: 004

OTHER: 001

Card 2/2



TOLSTUKHINA, F. S.

TOLSTUKHINA, F. S. -- "Investigation of the Effect of the Structure of Butadiene Polymers on Their Physicochemical and Mechanical Properties." Sub 14, Apr 52, Moscow Inst of Fine Chemical Technology imeni K. V. Lomonosov. (Dissertation for the Degree of Candidate in Chemical Sciences).

SO: Vechernaya Moskva January-December 1952

69463

S/069/60/022/02/006/024
D034/D002

5x
15.9300
15.9210
AUTHORS:

Zakharenko, N.V., Tolstukhina, F.S., Bartenev, G.M.

TITLE:

On the Flow of Rubber-like Polymers and of Their
Mixtures With Carbon Blacks

PERIODICAL:

Kolloidnyy zhurnal, 1960, Vol XXII, Nr 2, pp 168-
175 (USSR)

ABSTRACT:

The authors report on a study of the flow of polymers
and mixtures in a condensed phase in dependence on
temperatures and stress. The investigation, which is
intended to clarify this process, was carried out on
polyisobutylene of the types P-20, P-118 and its
carbon black mixtures, on sodium butadiene rubber
(SKB) and its mixtures with an active (lamp black)
and an inactive filler (chalk), and on various rubber
mixtures intended for industrial processing (shoes etc.).
The fluidity of the materials was measured in the

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S/069/60/022/02/006/024
D034/D002

On the Flow of Rubber-like Polymers and of Their Mixtures With
Carbon Blacks

usual way (determination of strain at constant stress within small velocity gradients). The viscosity was measured with the plastoelastometer designed by D.M. Tolstoy [Ref. 3]. In this device (diagram) the specimen is deformed in a thin layer between two parallel plates. The lower plate remains in a stable position, whereas the upper plate moves due to a load, which acts through a pulley in a horizontal direction. The investigation established the existence of Newtonian flow for polyisobutylene P-20 in the range of low yield values of from 10^2 - 10^4 dynes/cm². Within this range of stresses Newtonian flow is absent in the black-filled mixtures. The rheological curves of complicated disperse rubber- carbon black mixtures are described (within the studied stress limits) by

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On the Flow of Rubber-like Polymers and of Their Mixtures With
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the Ostwald - de Villiers (Russian transliteration -
Ostval'd-deVil'ye) empirical exponential law

$$\xi = \frac{1}{\eta'} \sigma^n$$

(n - index of deviation from Newtonian flow ($n \geq 1$);
 σ - shear stress; η' - material constant coinciding
with viscosity η at $n = 1$). The index n increases with
active filler content and does not change when an in-
active filler is added. The temperature dependence of
the viscosity of the studied systems is described by
the exponential equation $\eta = Ae^{E/kT}$ (A - constant; E
- magnitude having the dimension of the activation

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S/069/60/022/02/006/024
D034/D002

On the Flow of Rubber-like Polymers and of Their Mixtures With
Carbon Blacks

energy). The authors determined the values for the activation energy of viscous flow and calculated the elementary unit of flow. It was found that the temperature coefficients of viscosity and activation energy do not depend on nature and amount of the filler. There are 5 graphs, 1 set of graphs, 1 diagram, 3 tables and 11 references, 6 of which are Soviet, 4 English and 1 German. X

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

SUBMITTED: March 12, 1959

Card 4/4

AUTHORS: Novikov, A.S.; Tolstukhina, F.S. 69-20-3-17/24

TITLE: The Plastoelastic Properties of SKN-26 Rubber (Plastcelasticheskiye svoystva kauchuka SKN-26)

PERIODICAL: Kolloidnyy zhurnal, 1958, vol XX, Nr 3. pp 361-367 (USSR)

ABSTRACT: The plastoelastic properties of SKN-26 rubber in the solid phase have been investigated in relation to molecular weight, fractional composition and filler type. In Figure 1, a typical rheological curve is represented for a polymer fraction with a molecular weight of 81,000 at a temperature of 82°C. In Table 1 the dependence of the viscosity of the rubber on the molecular weight is shown. The viscosity of fraction III with a molecular weight of 202,000 is $1.38 \cdot 10^{11}$ poise; the viscosity of fraction VII with an approximate molecular weight of 27,000 is only $6.34 \cdot 10^4$ poise. The influence of the fractional composition was investigated on 3 samples with a characteristic viscosity of 1.24. Sample 1 is an integral polymer; sample 2 consists of the fractions III, IV, and VI; sample 3 is the homogeneous fraction IV. Table 2 shows that the ability of plastic flow does not depend on the molecular weight, but is determined by the characteristic viscosity. Polymers with equal characteristic viscosity and different

Card 1/2

69-20-3-17/24

The Plastoelastic Properties of SKN-26 Rubber

polydispersity, differ in the value of deformation at constant stress. The dependence of the viscosity of wet filled mixtures on temperature was also investigated. The fillers were introduced at quantities of 10.9 - 100 volume parts of the rubber. Table 3 shows that the filler reduces not only the speed of irreversible deformation by increasing the viscosity of the mixture, but also increases the value of elastic deformation. The dependence of filled mixtures on the temperature is shown in Table 4. The viscosity is decreased 17 times when the temperature is increased from 24°C to 82°C. This is an indication that in a system where the formation of black-rubber complexes is possible, the flow at low shear stresses takes place according to the mechanism of shifting of segments.

There are 6 graphs, 4 tables, and 12 references, 10 of which are Soviet, 1 American, and 1 English.

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

SUBMITTED: December 26, 1957
Card 2/2

1. Rubber—Properties 2. Rubber—Viscosity 3. Rubber—Temperature effects

ZAHARENKO, N.V., TOLSTUKHINA, F.S., BARTENEV, G.M.

Flow of rubberlike polymers and of their mixtures with carbon blacks. Koll. zhur. 22 no.2:168-175 Mr-Apr '60. (MIRA 13:8)

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

(Carbon black) (Polymers) (Propene)

NOVIKOV, A.S.; TOLSTUKHINA, F.S.

Effect of fillers on the properties of polydimethylsiloxane. Koll.
zhur. 22 no.1:42-48 Ja-F '60. (MIRA 13:6)

1. Institut rezinovoy promyshlennosti, Moskva.
(Siloxane) (Fillers (in paper, paint, etc.))

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756120018-0

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001756120018-0"

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31621
S/138/61/000/012/005/008
A051/A126

AUTHORS: Novikov, A.S., Tolstukhina, F.S., Chernov, G.V.

TITLE: Effect of fillers on structure and mechanical properties
of Wheighton A vulcanizates

PERIODICAL: Kauchuk i rezina, no. 12, 1961, 30 - 35

TEXT: The effects of fillers on structure and mechanical properties at high temperatures were studied for vulcanizates of the fluorocopolymer Wheighton type. Hexamethyldiamine (GMDA) was used as the vulcanizing agent. The following fillers were investigated: aerosil, ultrasil, microsil, YC -170 (U-170) silica gel, KC -2 (KS-2), Y -333 (U-333), A, AH-6 (A, AN-6), calcium fluoride and calcium silicate. The swelling method was used for the case of creep at high temperatures. The number of effective chains in the lattice per unit of volume was estimated according to the equation:

$$\nu = - \frac{1}{V_s} \cdot \frac{\ln(1-V_r) + V_r + \mu \cdot V_r^2}{\frac{1}{3} V_r},$$

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S/138/61/000/012/005/008
A051/A126

Effect of fillers on structure and

where V_s is the molar volume of the solvent, V_r - volumetric fraction of the polymer in the swollen lattice connected with the equilibrium value of swelling Q_m by the relation

$$V_r = \frac{1}{1 + Q_m}, \mu - \text{Huggins Constant.}$$

The volume of the absorbed solvent was determined by dividing the difference between the weight of the swollen and dry sample into the density of the solvent. The molecular weight of the chain section between the points of the lattice of the vulcanizate (M_c) was calculated with:

$$M_c = \frac{1}{\gamma} \cdot \rho_r,$$

where ρ_r is the specific weight of the polymer. It was established that the introduction of the filler changes the structure of the vulcanizate, increasing the molecular weight M_c of the vulcanizate lattice. The degree of increase of M_c depends on the filler type. The degree of transverse lacing affects the true tensility of the Wheighton A vulcanizates. In the region of dense and

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S/138/61/000/012/005/008

A051/A126

Effect of fillers on structure and

loosely spaced lattices, there is a drop in the tensility of the vulcanizates noted. The fillers were found to affect the life of the vulcanizates to a considerable degree. The creep of the vulcanizates, based on Wheighton A can be reduced by using fillers and by increasing the number of transverse bonds in the vulcanizates. The drop of the true tensility for vulcanizates with a high number of transverse bonds is explained by the difficulty encountered by the effects of orientation of the polymer chains. The creep was measured with a lever-type instrument, and the effect of temperature on it was investigated by simultaneous measurement of the true values of the residual deformations and by determining the change in structure during creep, according to the values of maximum swelling Q_m . An increase in temperature leads to an increase in the rate of deformation on a linear section. There are 4 tables, 4 figures and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The reference to the most recent English-language publication reads as follows: P.J. Flory, Chem.Phys., 18, 108 (1950)

X

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

Card 3/3

NOVIKOV, A.S.; TOLSTUKHINA, E.S.; CHERNOV, G.V.

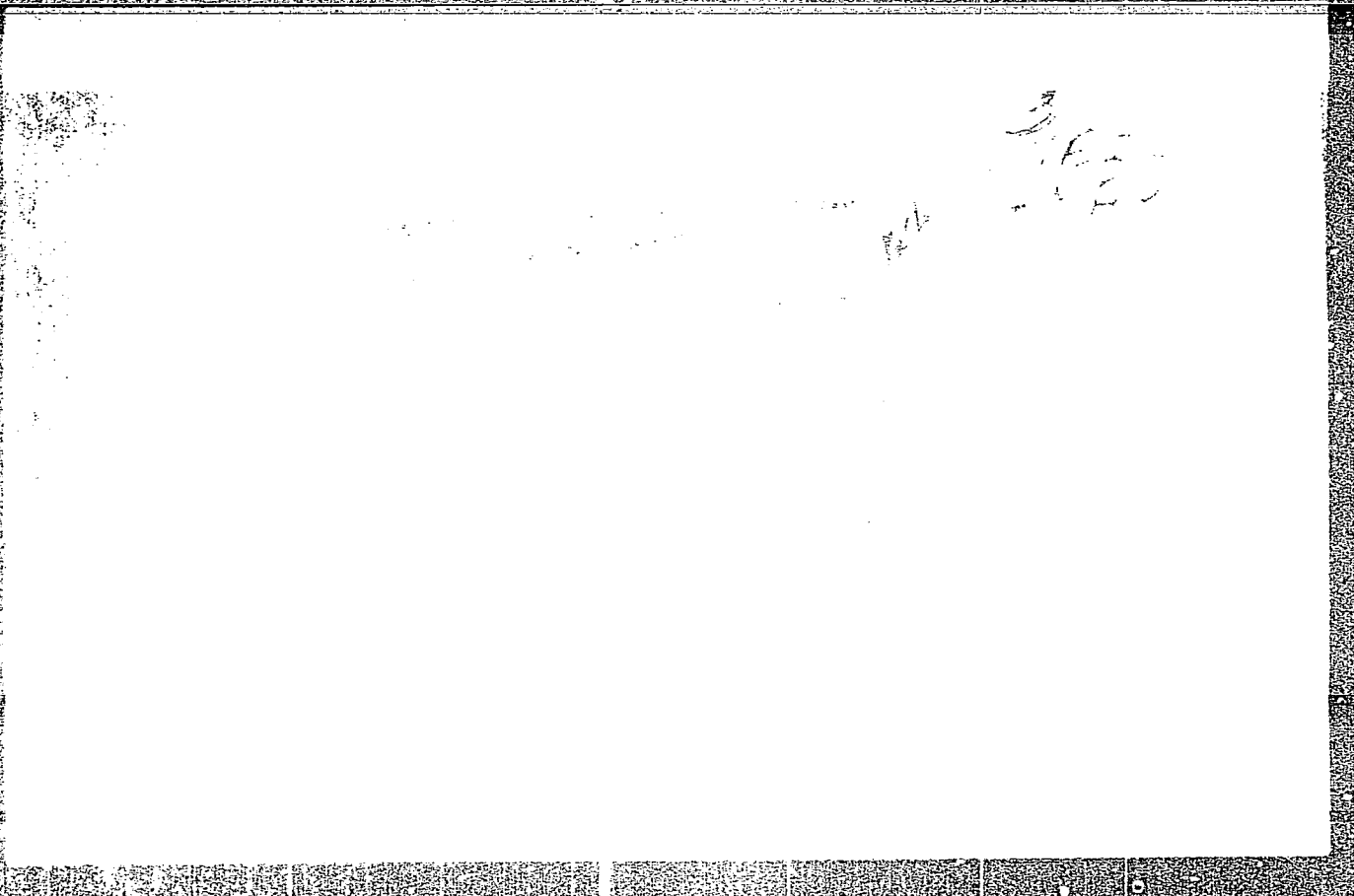
Effect of fillers on the structure and mechanical properties
of viton A vulcanizates. Kauch. i rez. 20 no.12:30-35 D '61.
(MIRA 15:1)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Rubber, Synthetic) : (Vulcanization)

TOLSTUKHINA, F., KLAUSEN, H., DOBROMISLOVA, A., DOGADKIN, B. A., and SAMBOLOVA, L.

"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



14804

NOVIKOV, A.S.; TOLSTUKHINA, F.S.

Viscosity of butadiene-styrene polymers in the solid phase. Dokl. AN
SSSR 109 no.3:576-578 J1 '56. (MLBA 9:10)

1. Nauchno-issledovatel'skiy institut resinovoy promyshlennosti. Pred-
stavleno akademikom V.A. Karginym.
(Butadiene) (Styrene)

ZAYEV, P.P.; TOLSTUKHINA, L.P.

How the use of moldboard plows and moldboardless plows affects
loamy turf-Podzolic soils and their microflora. Trudy Inst.
mikrobiol. no.7:49-58 '60. (MIRA 14:4)

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(PLAGUS, immunol.

ther. eff. of protein fractions of antiplague serum)

(IMMUNE SERUMS

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