L 1316-66 EWT(1)/EWT(m)/EWP(t)/EED-2/EWP(z)/EWP(b) IJP(c) JD/HW

ACCESSION NR: AP5012548 UR/0181/65/007/005/1393/1396

AUTHOR: Rode, V. Ye.; Gerrmann, R.; Grishina, I. V.

TITLE: Temperature dependence of the magnetization of ferrites at low temperatures

SOURCE: Fizika tverdogo tela, v. 7, no. 5, 1965, 1393-1396

TOPIC TAGS: ferrite, magnetization, temperature dependence, nickel containing alloy, zinc containing alloy

ABSTRACT: The authors investigate the temperature dependence of the saturation magnetization of Ni-Zn ferrites with different Zn content, for the purpose of studying the influence of the degree of reversal of the ferrite magnetization on the temperature variation. The measurements were made in the interval 4.2--50K. The ferrites were obtained from oxides by means of the usual ceramic technology. The density of the samples was 95 to 96% of the x-ray density. The measurement method was described elsewhere (PTE No. 1, 173, 1964). In all samples except the one with composition (0.73 NiO--0.27 ZnO) Fe_2O_3, the saturation increased like $T^{3/2}$ in the temperature range from 4.2 to 30K. The magnetization of the remaining sample increased like T^2. The proportionality coefficient C in the equation $\Delta I = CT^{3/2}$ is of the same order of magnitude as predicted theoretically. Orig. art. has: 5 figures, 1 formula, and 2 tables.

Card 1/2

BEZNOSOV, N.V.; GRISHINA, I.V.; YERMAKOV, V.I.

Prospecting for petroleum and gas pools associated with lithological and stratigraphical traps. Geol. nefti i gaza 7 no.3:16-22 Mr '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnykh gazov.

(Caucasus, Northern--Petroleum geology)
(Caucasus, Northern--Gas, Natural--Geology)

GRISHINA, I.V.

Materials on the results of Georgiyevsk key-well drilling. Trudy VNIIGAZ no.4:131-139 '58. (MIRA 11:12)
(Georgiyevsk (Stavropol Territory) -- Geology, Stratigraphic)

L 14283-66

ACC NR: AT6003867

After a 20-day period of hypokinesia, subjects were pale, irritable, nervous, and tense, although they were able to withstand 4 G for 30 sec without difficulty. It took longer 5—10 min.) for cardiovascular and respiratory indices to return to normal following 20 days of hypokinesia and 7-G runs than during control runs (1—3 min). Hypokinesia did not alter motor reactions or peripheral blood indices in response to centrifugation.

Petechiae were more commonly encountered and more pronounced due to acceleration after 20 days of hypokinesia. These hemorrhagic syndromes persisted for 2—3 days after centrifugation. In conjunction with these effects, there was a tendency for small vessels to become more brittle after bedrest (positive endotrelial syndrome). In general, it was observed that a 20-day period of hypokinesia lowered human endurance to acceleration, whereas a 3-day period did not have this effect. The individual response to the experiment was pronounced (see Tables 2 and 3). It was concluded that prolonged restriction of motor activity and decreased hydrostatic pressure of the blood are the main pathogenic factors determining lowered human tolerance to acceleration. Orig. art. has: 5 figures and 3 tables. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 006

Card 4/4

L 14283-66

ACC NR: AT6003867

Table 2. Change in endurance time to 7-G centrifugation after 20 days of hypokinesia

Subject	Maximum endurance time	
	Before hypokinesia	After hypokinesia
A	4 min 46 sec	4 min 50 sec
B	4 min 30 sec	4 sec
C	5 min	6 sec

Table 3. Change in visual acuity during 7-G centrifugation before and after 20 days of hypokinesia

Subject	Original value	Visual acuity during centrifugation	
		Before hypokinesia	After hypokinesia
A	1.0	0.7	0.4
B	1.0	0.8	Blacked out
C	0.9	0.7	Blacked out

Card 3/4

L 14283-66

ACC NR: AT6003867

Table 1. Changes in some human physiological reactions to 7-G transverse accelerations before and after 3 days of hypokinesia (mean)

Indices of physiological functions	Original value	Subject A: Before hypokinesia	Subject A: After hypokinesia	Original value	Subject B: Before hypokinesia	Subject B: After hypokinesia
Pulse rate/min	80	132	140	89	130	141
Resp. rate/min	14	27	29	16	17	22
Lung ventilation, liters/min	7.7	13.4	14.5	6.9	13.0	17.0
O_2 consumption, cm^3/min	330	375	500	260	360	450
Latent period of motor reaction response, sec	0.3 0.43	0.58 0.73	0.45–0.82	0.48 0.67	0.74	0.84–0.76
Visual acuity	1.0	0.5	0.9	0.9	0.6	0.6

In general, 3-day hypokinesia did not noticeably alter physiological reactions to 7-G centifugation; the duration of endurance was 4 min. The reaction of subjects to acceleration following a 20-day period of hypokinesia is shown in Tables 2 and 3.

Card 2/4

L 11283-66 EWT(1)/FS(v)-3 SCTB DD/RD

ACC NR: AT6003867 SOURCE CODE: UR/2865/65/004/000/0333/0342

AUTHOR: Kotovskaya, A. R.; Kakurin, L. I.; Konnova, N. I.; Simpura, S. F.; Grishina, I. S.

ORG: none

44

B+1

TITLE: Effect of prolonged hypokinesia on human resistance to accelerations

2,44

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 333-342

TOPIC TAGS: hypokinesia, acceleration, human physiology, cardiovascular system, space chamber test, space physiology, man, biologic acceleration effect

ABSTRACT: The effects of various durations of hypokinesia on the resistance of 5 male subjects to centrifugation were studied. The duration of force was chest-spine in a semi-prone position (25° from horizontal). Each subject was given a 30—40-sec 4-G trial run followed by two 7—8-G runs. The same procedure was followed after hypokinesia. The duration of hypokinesia was 3 days for 2 men and 20 days for 3 men.

The basic indices of human resistance to acceleration after hypokinesia were changes in maximum endurance time and the degree of changes in basic physiological reactions. Subjective illusions were also considered. Some results of the tests are shown in Tables 1-3.

Card 1/4

2

KOTOVSKAYA, A.R.; KAKURIN, L.I.; KONNOVA, N.I.; SIMPURA, S.P.; KRISHNA, J.S.

Effect of prolonged hypokinesia on the human resistance to stresses. Probl. kosm. biol. 4[illegible] '65. (M[illegible])

[illegible] Bibliography, [illegible] titles

FAN-YUNG, A.F. [Fang-Yung, A.F.]; KAGAN, I.S.; GRISHINA, I.P.; ZYABKO, L.P.

Removal of gas from semi-processed grape juice. Kons. i ov. prom. 14 no.11:30-33 N '59. (MIRA 13:2)

1.Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti.

(Grape juice)

FAN-YUNG [Fang-yung, A.F.] ; KAGAN, I.S.; GRISHINA, I.P.; ZYABKO, L.P.

Problems of the filtration of grape juice. Kons. i ov. prom. 14 no.9:11-12 S '59. (MIRA 12:12)

1.Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti.

(Grape juice)

TSYBULEVSKAYA, N.A.; GAYZLER, Yu.S.; GRISHINA, I.M.; MIKHEL'SON, V.A.

Hemodynamic changes during intubation of the trachea with a regular or a Karlens' tube. Sov.med. 28 no.1:81-84 Ja '65. (MIRA 18:1)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. I.S.Zhorov) lechebnogo vechernego fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova na baze 61-y klinicheskoy bol'nitsy i kafedra gospital'noy khirurgii (zav. - prof. V.S.Mayat) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova na baze 6-y Gorodskoy klinicheskoy bol'nitsy.

GRISHINA, I.M. (Moskva, ul.Gor'kogo,d.8, kv.153), YUREVICH, V.M.

Changes in the electrocardiogram following the administration of a neuroplegic mixture.Grud.khir. 2 no.2:99-103 Mr-Ap'60. (MIRA 16:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav.-prof. I.S. Zhorov) sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta i elektrokardiograficheskogo kabineta (zav.I.M.Grishina) 61-y gorodskoy klinicheskoy bol'nitsy Moskvy (glavnyy vrach L.N.Vasilevskaya)
(AUTONOMIC DRUGS) (ELECTROCARDIOGRAPHY)

VOSKANOV, M. A., kand. med. nauk; GRISHINA, I. M.

Electrocardiographic examinations of patients with myocardial infarction under the influence of exercise therapy. Terap. arkh. no.9:113-114 '61. (MIRA 15:2)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. A. G. Gukasyan) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I. M. Sechenova.

(EXERCISE THERAPY) (HEART--INFARCTION)
(ELECTROCARDIOGRAPHY)

GORBUNOVA, L.I.; GRISHINA, I.I.

Preparing the large-scale agricultural maps of land utilization. Vop. geog. no.54:87-95 '61. (MIRA 15:3)
(Agriculture--Maps)

LAPINA, L.M.; KIZAS, A.Yu.; GRISHINA, I.A.

Ammonium ferri and aluminophosphates. Zhur. prikl. khim. 38 no.4: 736-745 Ap '65. (MIRA 18:6)

GEL'MAN, B.L.; KAZEM, K.I.; GRIGSHINA, I.A. (Moscow)

Pathogenesis of pneumonia in burn disease, antibacterial penicillin. Eksper. Khir. i anest. 4 no.5:12-18 Sep-Oct 1959.
(CIRLA 17:5)

GRISHINA, G. V.

Acid-resistant cement. B. D. Izyumov, V. I. Pakhomov, and G. V. Grishina. U.S.S.R. 100,153, July 25, 1957. The cement is prepd. from a mixt. of the silicate Na_2SiF_6, ground diabase, and org. Si compds. The silicate can be wholly or partly replaced by an alkali metal alkyl or aryl silane.

M. Hosak

VOSKRESENSKAYA, Natal'ya Petrovna; LECHIVOLOVICH, A.A., prof., red.; GRISHINA, G.S., red.

[Photosynthesis and the spectral composition of light] Fotosintez i spektral'nyi sostav sveta. Moskva, Nauka, 1965. 308 p. (MIRA 18:10)

L 20789-65

ACCESSION NR: AR4046197

darkness. However, oxygen conversion in blue light takes place according to a photochemical mechanism, without fractionation of its isotopes (alpha = 1000), but in red light it is similar to respiration in darkness with fractionation (alpha = 1.012). Sodium azide does not change the nature of the O_2 reduction mechanism of the Elodea in darkness. Not only does the O_2 intake activity of the Scenedesmus change in darkness, but fractionation also changes. The significance of a photochemical reducer and of enzyme systems participating in O_2 reduction is discussed. A similarity is found between O_2 photochemical reduction and photochemical decomposition of water with separation of O_2 during photosynthesis; both processes take place without fractionation of oxygen isotopes. Institute of Geochemistry and Analytical Chemistry AN SSSR.

SUB CODE: LS ENCL: 00

Card 2/2

L 20789-65 EWG(j)/EWG(r)/EWT(1)/FS(v)-3/EWG(v)/EWG(a)/EWG(c) Pe-5 DD

ACCESSION NR: AR4046197 S/0299/64/000/016/G003/G003

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 16G13

AUTHOR: Kutyurin, V. M.; Voskresenskaya, N. P.; Ulubekova, M. V.; Grishina, G. S.; Zadorozhnyy, I. K.

TITLE: Effect of light spectral composition on isotope fractionation of oxygen during its intake by hydrophytes

CITED SOURCE: Fiziol. rasteniy, v. 11, no. 1, 1964, 7-12

TOPIC TAGS: plant, hydrophyte, Elodea canadensis, Scenedesmus obliquus, light, oxygen, fractionation, reduction

TRANSLATION: Experiments were performed on Elodea canadensis and Scenedesmus obliquus with different light composition with and without the presence of sodium azide to find the mechanism of O_2 reduction. The principle difference in the nature of O_2 intake and reduction in red and blue light was found. The fact that O_2 intake is intensified in light compared to darkness, during poisoning of dark respiration with azide, points out the different nature of O_2 intake in light and

Card 1/2

GRISHINA, G.S., VOSKRESENSKAYA, N.P.

Light dependence of oxygen absorption by chloroplasts (Mehler reaction). Dokl. AN SSSR 151 no.2-452-455 Jl '63. (MIRA 16:7)

1. Institut fiziologii rastenii im. K.A. Timiryazeva AN SSSR. Predstavleno akademikom A.L. Kursanovym.
(Chromatophores) (Plants, Effect of light on)
(Plants, Effect of oxygen on)

(Fiziol. rast., 8, no. 1 (1962)). In red light, the amount of R is presumably sufficient to ensure reduction of both NO_2 and CO_2; in blue light, however, this is not the case as the more active reduction of NO_2 requires a greater amount of R. Nor does competition take place if the light intensities are insufficient for saturation photosynthesis. The interaction between R and the oxidizers probably depends not only on the amount of R but also on the nature of the oxidizers, the intermediate stages of reduction, and the activity of the systems involved. If the optimum conditions for photosynthesis in higher plants (sun light) are changed, the equilibrium between the photoactive systems will be disturbed, and the interaction of R with CO_2 and the other oxidizers will increase or decrease. This may be one of the reasons for the changes in the overall efficiency and the composition of photosynthetic products in various spectral regions. There are 3 tables.

PRESENTED: October 23, 1961, by A. L. Kursanov, Academician

SUBMITTED: October 23, 1961

Card 3/3

beet leaves exposed to red or blue light of luminescent lamps. H_2O (controls) and solutions of the salts were introduced into the leaves by vacuum infiltration. The inhibition of $C^{14}O_2$ assimilation was independent of osmotic effects and constant at concentrations of 0.0075 - 0.0025 M for NO_2, and 0.01 - 0.0025 M for SO_4 and NO_3. This is indicative of a competition between CO_2 and these oxidizers in the reduction process. Short-wave light inhibited the photosynthesis to a greater extent than did long-wave light. When NO_2 was administered without preliminary removal of H_2O from the intercellular system, fixation was reduced after 3 - 4 min in blue light only. When NO_2 was introduced into beet leaves still connected with the plant after removal of H_2O from the intercellular system within 1.5 hrs, photosynthesis remained unchanged in red light, but was reduced to 70% in blue light. This can be attributed neither to the short time of action nor to the absence of NO_2 reduction

S/020/62/144/004/023/024
B144/B138

AUTHORS: Voskresenskaya, N. P., and Grishina, G. S.

TITLE: Photosynthetic competition between CO_2 and some other oxidizers in various spectral regions

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 4, 1962, 922-925

TEXT: The effect of oxidizers (sulfates, nitrates, nitrites) on photosynthesis was studied to elucidate the differences in assimilation of CO_2 in various spectral regions. CO_2 reduction is presumably effected by a photochemical reducing agent (R). After complete removal of H_2O from the intercellular system in the dark photosynthesis was measured: (1) on 10 cm^2 segments of tobacco plants irradiated for 2 - 5 min with Hg quartz lamps and incandescent lamps in a chamber containing 1.5% of $C^{14}O_2$ and subsequently fixed in 85% ethanol. Irradiation was not strong enough to bring about saturation photosynthesis. (2) Colorimetrically on undivided

Card 1/3

VOSKRESENSKAYA, N.P.; GRISHINA, G.S.

Significance of light in nitrite reduction in a green leaf. Fiziol. rast. 9 no.1:7-15 '62. (MIRA 15:3)

1. K.A.Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.
(Plants, Effect of light on) (Nitrogen metabolism)

VOSKRESENSKAYA, N.P.; GRISHINA, G.S.

Some peculiarities of the absorption of oxygen by green leaves in the light. Fiziol. rast. 8 no.6:726-733 '61. (MIRA 16:7)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.
(Photosynthesis) (Plants—Respiration)

GRISHINA, G. S., VOSKRESENSKAYA, N. P. (USSR)

Reduction of CO_2 in Various Parts of the Spectrum in the Presence of certain Oxidizing Agents.

Report presented at the 4th Int'l. Biochemistry Congress, Moscow, 10-16 Aug. 1961

VOSKRESENSKAYA, N.P.; GRISHINA, G.S.

Oxygen absorption by green leaves as related to the intensity and spectral composition of light. Fiziol. rast. 7 no. 5:497-506 '60. (MIRA 13:10)

1. K.A. Timiriazev Institute of Plant Physiology, U.S.S.R., Academy of Sciences, Moscow.
(Plants, Effect of light on)
(Plants--Respiration)

On the Effect of Intensity of Spectral Composition of Radiation Upon Metabolism and Harvest SOV/20-124-2-64/71

In the case of red light it remained the same no matter what light intensities were used, in blue light, however, it dropped with the intensity being higher (data of references 1, 2, 5, 6 confirmed). Table 4 gives the protein nitrogen content in the seeds. Unexpectedly, the protein content was somewhat lower under blue light than under red lamps. The activity of the cytochrome system was higher in the case of leaves exposed to blue light. The increased capacity of accumulation of the nitrogen compounds and the protein synthesis lead to the acceleration of ripening and a greater harvest of bean seeds. The results are of interest for plant ecology, in particular for the leaves of the lower stages. - There are 2 figures, 4 tables, and 11 references, 5 of which are Soviet.

ASSOCIATION: Institut fiziologii rasteniy im. K. A. Timiryazeva Akademii nauk SSSR (Institute for Plant Physiology imeni K.A Timiryazev of the Academy of Sciences, USSR)

PRESENTED: September 17, 1958, by A. L. Kursanov, Academician

SUBMITTED: September 6, 1958

Card 3/3

title the authors bred beans of the type triumph (Triumf) in a dark room illuminated with 30 w luminescence lamps with "red" and "blue" light (Table 1). After 20-25 days of uninterrupted illumination the authors had to give up an investigation because of the damage the plants had suffered (Ref 4). Since that time the plants were not exposed to light for 6 hours daily. Result: the affections did no more occur. Blue light had a highly inhibiting effect upon the longitudinal growth of the plants (Ref 3). The period of blossoming and the duration were in the case of both colors of light mainly due to the influence of the intensity of light. Blue light had a much more favorable effect upon blossoming and the harvest of legumes. No results were determined with respect to the absolute quantity of the harvest since a part of the legumes remained green (unripe) under red and blue light. Table 2 shows much more the relative rapidity of legume formation. In the case of a high nitrogen content in the leaves under both colors of light the percentage was higher in the case of blue light (Table 3). The protein content in the leaves was in blue light always higher than in red light.

17(4)

AUTHORS: Voskresenskaya, N. P., Grishina, G. S. SOV/20-124-2-64/71

TITLE: On the Effect of Intensity of Spectral Composition of Radiation Upon Metabolism and Harvest (O deystvii intensivnosti i spektral'nogo sostava radiatsii na obmen veshchestv i urozhay)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, pp 469 - 472 (USSR)

ABSTRACT: The differences in the ways of assimilation of carbon forming in the case of photosynthesis in different sections of the spectrum have an influence upon the entire metabolism of plants. Short-wave radiation favors the accumulation of nitrogen compounds in the leaves. A similar phenomenon is also observed in the case of a reduction of the light intensity. It is therefore not certain which changes of metabolism, among them of nitrogen metabolism, are specific of light of different spectral composition and what phenomena can be explained by the difference of intensity of light. Data concerning this problem are extremely scarce (Refs 1-3). For the purpose of investigating the subject mentioned in the

Card 1/3

GRISHINA, G.S.

VOSKRESENSKAYA, N.P.; GRISHINA, G.S.

Problem of the prolonged action of different spectral components of light on plants [with summary in English]. Fiziol. rast. 5 no.2: 147-155 Mr-Ap '58. (MIRA 11:4)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva AN SSSR, Moskva.
(Plants, Effect of light on)

Grishina, G. S.

2

Uptake of carbon-14 dioxide by plants under various conditions of illumination. N. P. Vonkrasenskaya and G. S. Grishina (*Doklady Akad. Nauk SSSR*, 1956, 106, 556—558).—At equal rates of uptake of $^{14}CO_2$, synthesis of water-sol. carbohydrates in sugar beet and sunflower leaves is greater in red (λ 580—720 mμ) than in blue (400—575 mμ) light. Except at the budding stage of tobacco plants, the proportion of carbohydrates sol. in 55% ethanol formed from new γ-assimilated $^{14}CO_2$ is greater in red than in blue light.

H. Tavecchia

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900014-6

PECHURO, P.S., MERKU'YEVA, A.P., GRISHINA, G.A., BURMISTROVA, E.F.
DALINA, M.A.

Dissociation of fluid petroleum products in an electric discharge.

Report presented at the 12th Conference on high molecular weight compounds, devoted to monomers, Baku, 3-7 April 62

121-2-10/20

AUTHOR: Kimmel, I.Ya, Avramov, P.A. and Grishina, E.N.

TITLE: Setting up of technically-based time rating standards for lathe work (Raschet tekhnicheski obosnovannykh norm vremeni na stanochnyye raboty)

PERIODICAL: "Stanki i Instrument" (Machine Tools and Tools), 1957, No.2, pp. 31 - 33 (U.S.S.R.)

ABSTRACT: Guided by the experience of the "Elektroapparat" plant in Leningrad simplified standard tables for lathe work permit a practical rate fixing for individual components and small batches. One page of standard tables, each for external and internal lathe work covers the whole field. The tables for external work are reproduced. The table covers both setting up and machining times. An example illustrates the application of the method.

There are 1 figure and 2 tables.

AVAILABLE:

1/1

GRESHINA, E.E. k.t.n. inzh.

Tests in purification of the waste water from wool scouring by means of anaerobic fermentation. Khlopchatobum. prom. no.10:317-319 '64.

PAVLOV, M.S.; DEMESHKO, G.V.; BABAKHIN, N.Ya.; BLOKHINA, T.F.; GRISHINA, A.T.; SOKOL'SKIY, I.F., red.; PERSON, M.N., tekhn. red.; TOKER, A.M., tekhn. red.

[Workbench of a radio serviceman] Rabochee mesto sborshchika i montazhnika radioapparatury. Moskva, Vses. uchebno-pedagog. izd-vo Proftekhizdat, 1961. 210 p. (MIRA 14:11)

1. Normativno-issledovatel'skiy otdel TSentral'nogo tekhnologicheskogo byuro (for Pavlov, Demeshko, Babakhin, Blokhina, Grishina). (Radio industry)

24,7100

S/070/62/007/002/007/022
E132/E160

AUTHORS: Zubov, V.G., and Grishina, A.P.

TITLE: The dielectric susceptibility and refractive indices of quartz irradiated by fast neutrons

PERIODICAL: Kristallografiya, v.7, no.2, 1962, 238-241

TEXT: For comparison with measurements by W. Primak (Ref.2: Phys. Rev., v.110, no.6, 1958, 1240-1254) the d.c., density and refractive indices of quartz crystals after irradiation by 2 x 10^{19} neutrons/cm^2 have been studied. As the density and refractive indices depend on the two effects of irradiation - the general breaking up of the structure and the distortion of the interatomic forces by defects - it is concluded that the dielectric constant is a more sensitive index by which to follow the irradiation. The d.c. changes by 1% for this dose while the density changes by 0.18%, the r.i. by about 0.05% and the elastic constants by about 1%. There are 5 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

Card 1/1

SUBMITTED: June 30, 1960

ARTEM'YEV, S.A.; NYUNIKOVA, O.I.; ZHAROV, A.V.; METAL'NIKOV, B.P.; KISLOVA, T.A.; STAROSTINA, Z.D.; CHASTIKOVA, A.V.; TEMYANKO, S.A.; IKONNIKOV, N.N.; ARALOVA, Z.T.; GRISHINA, A.M.

Levomycetin in the treatment of gonorrhea; results of a cooperative study. Vest. derm. i ven. 33 no.2:70-73 Mr-Ap '59. (MIRA 12:7)

1. Iz TSentral'nogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (zav.otdelom gonorei - prof. I.M. Porudominskiy, dir. - kand. med. nauk N.M. Turanov) Ministerstva zdravookhraneniya RSFSR. 2. TSentral'nyy nauchno-issledovatel'skiy kozhno-venerologicheskiy instituta (for Nyunkova). 3. Bashkirskiy krayevoy kozhno-venerologicheskiy institut (for Zharov). 4. Gor'kovskiy krayevoy kozhno-venerologicheskiy institut (for Temyanko). 5. Sverdlovskiy krayevoy kozhno-venerologicheskiy institut (for Grishina).

(CHLORAMPHENICOL, ther. use,
gonorrhea (Rus))
(GONORRHEA, ther.
chloramphenicol (Rus))

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900014-6

GRISHIN, V.L.; GRISHINA, A.D.

Spot welding of niobium. TSvet. met. 37 no.10:67-68 O '64. (MIRA 18:7)

L 29245-66

ACC NR: AP6019308

Measurements of the differential thermal-e.m.f. indicated that the prepared materials are p-type semiconductors. In the -50- + 150°C region the differential thermal-e.m.f. does not depend on the average temperature of the specimens in the limits of experimental error. The values of σ_{20}, ΔE, and α in relation to the dose absorbed by polyethylene and the thermal treatment temperature for powder and film specimens are presented. Orig. art. has: 14 figures, 15 formulas and 5 tables. [JPRS]

SUB CODE: 20, 11 / SUBM DATE: none / ORIG REF: 020 / OTH REF: 010

Card 3/3

L 29245-66

ACC NR: AP6019308

conducted by the standard method according to which the irradiated specimen was subjected to short-term oxidation at 260°C and subsequent pyrolysis in a vacuum. Study of the electrical characteristics of the specimens in a constant field was conducted in a vacuum ($\sim 10^{-5}$ mm Hg). The film specimens were studied as surface or laminated elements which were placed in a special container. Electrophysical properties of powder products were measured in the element with disc plate electrodes at +20- +150° in vacuum and air and at +20--50° in the case of iodine adsorption on the specimens.

Measurements in a constant field were made with the Ye6-3 teraohmmeter or MO-47 bridge in the case of low ohmic specimens. Conductivity in the variable field was measured with the Ye10-2 full conductance bridge.

Most of the results presented in this article were obtained on films of radiation-thermal modified polyethylene. Electrophysical properties were studied on polyethylene specimens irradiated up to the absorption of three different doses: 1.2×10^3, 6.9×10^3, and 2.4×10^4 megarads. Measurements of specimen conducitivity in the range -25- + 150°C indicated excellent satisfaction with the exponential relationship:

$$\sigma = \sigma_0 \exp(-\Delta E/kT)$$

Card 2/3

L 29245-66 EWP(j)/EWT(m)/T IJP(c) GG/RM

ACC NR: AP6019308 SOURCE CODE: UR/0074/65/034/010/1733/1752

AUTHOR: Bakh, N. A.; Vannikov, A. V.; Grishina, A. D.; Nizhniy, S. V.

ORG: Institute of Electrochemistry, AN SSSR (Institut elektrokhimii AN SSSR)

TITLE: Polyethylene-based organic semiconductors

SOURCE: Uspekhi khimii, v. 34, no. 10, 1965, 1733-1752

TOPIC TAGS: organic semiconductor, polyethylene plastic, linear accelerator, paramagnetism, photoconductivity

ABSTRACT: The electrophysical and paramagnetic properties of the products of the radiation-thermal modified polyethylene were studied in relation to the absorbed dose and to the conditions of thermal treatment. Conductivity in a constant and variable field, its temperature relationship, differential thermal-e.m.f., structure of the products by EPR and IF-spectroscopic methods, as well as the effect of the contaminating additives and photoconductivity were investigated in a wide range.

The products of the radiation-thermal modified polyethylene were studied as powders and as films. The films were applied to glass or quartz substrates with preliminarily applied gold electrodes. Irradiation of the specimens was conducted in vacuum ampoules ($\sim 10^{-5}$ mm Hg) with fast electrons (5 mev) from the U-12 linear accelerator. Thermal treatment of the irradiated specimens was

Card 1/3 UDC: 541.6: 541.15

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900014-6

L 8872-66

ACC NR: AP5025958 0

SUB CODE: MT, SS, GP/ SUBM DATE: 09Nov64/ ORIG REF: 004/ OTH REF: 003

Card 2/2 Rdb

L 8872-66 EPF(n)-2/EWT(1)/EWT(m)/EWP(j)/EWA(h)/EWA(1) IJP(c) GG/RM/WW

ACC NR: AP5025958 SOURCE CODE: UR/0190/65/007/010/1698/1700

AUTHOR: Grishina, A. D.; Bakh, N. A.

ORG: Electrochemical Institute, AN SSSR (Institut elektrokhimii AN SSSR)

TITLE: EPR study of the structural changes in polyethylene caused by irradiation up to high doses

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 10, 1965, 1698-1700

TOPIC TAGS: polyethylene plastic, EPR spectrum, polymer structure, gamma irradiation, conjugated polymer

ABSTRACT: EPR spectra of products obtained by irradiating polyethylene with doses in the 6×10^2 to 2.2×10^4 Mrad range were studied to determine structural changes in the polyethylene. If the dose is below 2×10^3 Mrad the paramagnetic properties are due to linear polyenic structures, while with doses over 6×10^3 Mrad, cyclic polyenic structures are also present. Polyconjugated cyclic structures formed by radiation with 2.2×10^4 Mrad doses were disseminated in the less structurized materials in the radiated products. Orig. art. has: 1 figure.

Card 1/2 UDC: 678.01:53+678.742

L 57069-65
ACCESSION NR: AP5011825

2

line width ΔH max = 3.5 ± 0.2 at 20C and 1.4 ± 0.1 oersteds at -196C. Heating of oxygen containing specimens has the same effect on the concentration of PMC as a prolonged exposure to oxygen at room temperature. The dependence of the line width on the measuring temperature (see Fig. 4 on the Enclosure) indicates an increase in the spin-lattice interaction, i.e., a structural change in the specimen. A drastic change in the EPR spectrum is observed when the specimen is pyrolyzed at 850C for 120 hours (see Fig. 5 on the Enclosure). This change is interpreted in terms of a skin-effect similar to the one observed in graphite by L. S. Singer and G. Wagoner (J. Chem. Phys., 37, 1812, 1962). The specific surface area of specimens pyrolyzed for 120 hours at 850C increases from ~5 to 46 m^2/g (see Fig. 1 on the Enclosure). N. I. Mitina took part in the preparation of the specimens. Orig. art. has: 1 table and 6 graphs.

ASSOCIATION: Institut elektrokhimii AN SSSR (Electrochemical Institute, AN SSSR)

SUBMITTED: 25Mar64 ENCL: 04 SUB CODE: GC, OC

NO REF SOV: 008 OTHER: 006

Card 2/6

L 57069-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(j)/T/EWA(h)/EWA(1) Pc-4/
Pr-4/Ps-4/Peb/Pu-4 RPL WW/GG/RM
ACCESSION NR: AP5011825

UR/0192/65/006/002/0204/0208
541.15

AUTHORS: Grishina, A. D.; Bakh, N. A.

TITLE: EPR studies of the interaction between oxygen and pyrolysis-radiolysis products of polyethylene. 2. Thermal treatment at temperatures from 800 to 1100C

SOURCE: Zhurnal strukturnoy khimii, v. 6, no. 2, 1965, 204-208

TOPIC TAGS: polyethylene, pyrolysis, epr spectrometry

ABSTRACT: The paper is a continuation of the work reported by A. D. Grishina and N. A. Bakh (Zh. strukt. khimii, 6, 198, 1965). Previously irradiated polyethylene specimens were pyrolyzed for 2 hours at 820, 930, and 1100C. After pyrolysis the specimens were evacuated and their EPR spectra determined in the presence and absence of oxygen. The experimental results are shown in Figures 1, 2, and 3 on the Enclosure. The concentration of paramagentic centers (PMC) in the specimens increases as a result of their interaction with oxygen. This effect is completely reversible. The creation of one new PMC results from an absorption of one oxygen molecule. The line width and the concentration of PMC decreased for specimens exposed to an oxygen pressure < 4 mm Hg for a period of 10 months. The concentration of PMC became equal to that of an evacuated specimen (7×10^{18} PMC/g) and the

Card 1/6

L 57080-65

ACCESSION NR: AP5011824

ENCLOSURE: 02

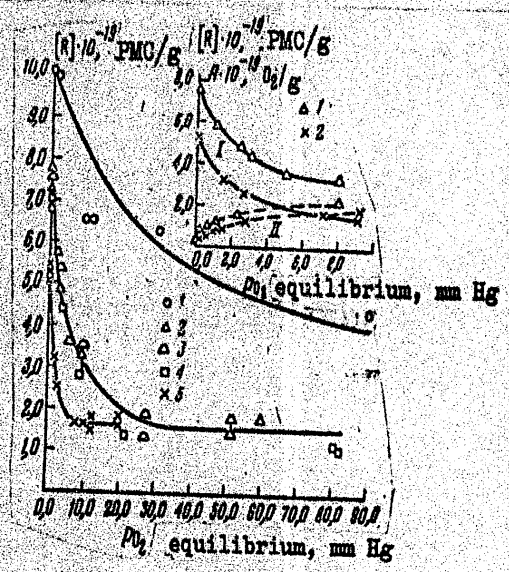

Fig. 2. The dependence of concentration of paramagnetic centers (PMC) at 7200 on the oxygen pressure. 1- pyrolyzed for 0.6 hours; 2- 1 hour; 3- 1.3 hours; 4- 2 hours; 5- 80 hours. Insert: The initial dependence of the concentration of PMC (I) and absorption of oxygen on the oxygen pressure (II). 1- pyrolyzed for 1 hour; 2- 80 hours.

Card 4/4

L 57080-65

ACCESSION NR: AP5011824

ENCLOSURE: 01

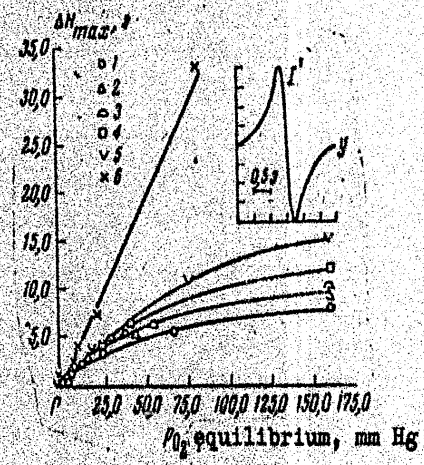

Fig. 1. The dependence of the line width for specimens pyrolyzed at 720C on the oxygen pressure for various times of pyrolysis. 1- pyrolyzed for 0.6 hours; 2- 1 hour; 3- 1.3 hours; 4- 2 hours; 5- 3.6 hours; 6- 80 hours. (The specimens pyrolyzed for 1.3 and 3.6 hours were prepared in the absence of air). Insert: EPR spectrum of evacuated specimen.

Card 3/4

L 57080-65
ACCESSION NR: AP5011824

2

adsorption of oxygen at 20C on specimens pyrolyzed for 1 and 80 hours was determined. The surface area using the BET method and Kr and Arat - 196C was also determined. The experimental results are shown in the insert of Fig. 2 on the Enclosure. The adsorption of one oxygen molecule causes the disappearance of two paramagnetic centers (PMC). The fact that in the absence of O_2 the EPR spectra of all specimens exhibit only one line, Δ H max = 0.5 oersted, of pure Lorentz shape is attributed to the presence of delocalized electrons in the polyconjugate regions created by irradiation in the specimens of polyethylene. The extent of the polyconjugate regions increases with time of pyrolysis. Orig. art. has: 2 tables and 6 graphs.

ASSOCIATION: Institut elektrokhimii AN SSSR (Electrochemical Institute, AN SSSR)

SUBMITTED: 25Mar64 ENCL: 02 SUB CODE: GC, OC

NO REF SOV: 007 OTHER: 000

Card 2/4

L 57080-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(j)/T/EWA(h)/EWA(1) Po-4/Pr-4/Ps-4/Peb/Pu-4 RPL WW/GG/RM

ACCESSION NR: AP5011824 UR/0192/65/006/002/0198/0203
541.15

AUTHORS: Grishina, A. D.; Bakh, N. A.

TITLE: EPR studies of the interaction between oxygen and pyrolysis-radiolysis products of polyethylene. 1. Thermal treatment at temperatures up to 750C

SOURCE: Zhurnal strukturnoy khimii, v. 6, no. 2, 1965, 198-203

TOPIC TAGS: polyethylene, pyrolysis, epr spectrometry

ABSTRACT: The paper is an extension of the work of N. A. Bakh, V. D. Bityukov, A. V. Vannikov, and A. D. Grishina (Dokl. AN SSSR, 144, 135, 1962). High-pressure polyethylene was irradiated with fast electrons, the total radiation dosage per specimen being 10^{24} ev/g. The specimens were briefly oxidized at 250C and pyrolyzed in vacuum at 720C for various time periods (0.6, 1, 2, and 80 hours). The specimens were loaded to measuring tubes in contact with air and evacuated at temperatures from 20C to 100C. Contact with air had no effect on the signal line width of evacuated specimens. The line width (ΔH max. = 0.5 ± 0.1 oersted) and the concentration of paramagnetic centers as a function of the oxygen pressure and time of pyrolysis are shown in Figures 1 and 2 respectively on the Enclosure. The

Card 1/4

ACCESSION NR: AP4038530

A comparison of experimental conductivity values with conductivity values calculated from EPR data on the assumption that paramagnetism is due to current carriers at 850C and above revealed that paramagnetism in pyrolized IHTP is apparently due to structural defects of the broken bond type only if PT is less than 800C. When PT is approximately equal to 850C (Fig. 1, curve III), the number of such defects decreases sharply. When PT is higher than 850C, paramagnetism is apparently due to current carriers. The authors express their gratitude to N. A. Bakh for valuable advice. This research was done at the Institute of Electrochemistry, Academy of Sciences SSSR. Orig. art. has: 1 figure and 3 formulas.

ASSOCIATION: Institut elektrokhimii Akademii nauk SSSR (Institute of Electrochemistry, Academy of Sciences SSSR)

SUBMITTED: 06Feb64 DATE ACQ: 09Jun64 ENCL: 01

SUB CODE: SS NO REF SOV: 007 OTHER: 005

2/3

ACCESSION NR: AP4038530

S/0020/64/156/003/0647/0649

AUTHOR: Grishina, A. D.; Vannikov, A. V.

TITLE: Relationship between the paramagnetic and electrical properties of certain organic semiconductors

SOURCE: AN SSSR. Doklady*, v. 156, no. 3, 1964, 647-649

TOPIC TAGS: organic semiconductor, semiconducting polymer, pyrolized polyethylene, polyethylene, irradiated and heat treated polyethylene, electrical property, paramagnetic property

ABSTRACT: A study has been made of the relationship between the paramagnetic and the electrical properties of irradiated-and-heat-treated polyethylene(IHTP) subsequently pyrolized at various temperatures (PT). The current carrier concentration calculated from earlier data (N. A. Bakh, V. D. Bityukov,et al., DAN, 144, 135(1962) and A. V. Vannikov, DAN, 152, 905(1963)) and the paramagnetic center concentration were plotted versus PT (see Fig. 1 of the Enclosure).

Card 1/3

GRISHINA, A.D.; GRISHIN, V.I.

Spot welding of the VA23 alloy. Tsvet. met. 37 no.[illegible] '64. (MIRA 17:9)

L 15304-65
ACCESSION NR: AP4047427

figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 001 OTHER: 000 ATD PRESS: 3139

Card 2/2

L 15304-65 EWT(m)/EPF(n)-2/EWP(v)/EWP(t)/EWP(k)/EWP(b) Pf-4/Pu-4
ASD(f)-2/ASD(m)-3/AFTC(p) JD/HM/JG
ACCESSION NR: AP4047427 S/0136/64/000/010/0067/0068

AUTHOR: Grishin, V. L.; Grishina, A. D.

TITLE: Spot welding of niobium

SOURCE: Tsvetny*y metally*, no. 10, 1964, 67-68

TOPIC TAGS: niobium, welding, spot welding, weld, weld property

ABSTRACT: Satisfactory-quality spot welds between niobium sheets 0.1 mm thick and 0.1—0.5 mm thick were produced with the TKM6 stored-energy welder. Sheets 0.5 mm thick were successfully welded with the standard MTP-75 spot welder. In the first case best results were obtained with a capacitance of 250—325 μf and an electrode pressure of 100 kg; in the second case, with a current of 8000 amp and a pressure of 180 kg. To prevent the welding of the electrodes to the sheets, the electrodes of the stored-energy welder were provided with tungsten tips and the electrodes of the standard welder were intensively water cooled. The weld nugget consisted of columnar crystals 0.18—0.25 mm long. The microhardness of the weld was 260—270 kg/mm², and that of the base metal was 220—250 kg/mm². The higher microhardness of the weld is attributed to the absorption of gases. Orig. art. has: 2

Card 1/2

ACCESSION NR: AP4040500

400—500 kg per spot. Heat treatment increased the weld strength by 5—7%. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 06Jul64 ENCL: 00

SUB CODE: MM NO REF SOV: 000 OTHER: 000

Card 2/2

ACCESSION NR: AP4040500 S/0136/64/000/006/0074/0074

AUTHOR: Grishina, A. D.; Grishin, V. L.

TITLE: Spot welding of VAD23 alloy

SOURCE: Tsvetny*ye metally*, no. 6, 1964, 74

TOPIC TAGS: aluminum alloy, wrought aluminum alloy, VAD23 aluminum alloy, alloy weld, alloy weld property, alloy welding, spot welding, alloy weldability

ABSTRACT: VAD23 high-strength wrought aluminum alloy can be successfully spot welded. The weld strength depends primarily upon the current amplitude. The best results in spot welding of sheets 1.5 mm thick were obtained at a current amplitude of 42 kiloamperes, electrode pressure of 700 kg, forging pressure of 1200 kg, and total welding time of 0.12 sec. At 35 kiloamperes, base metal fusion was insufficient, the weld nugget too small, and the single-spot weld failed under a 250 kg shear load. Use of 42 kiloamperes yielded welds with a nugget of 6 mm in diameter. These welds withstood loads up to

Card 1/2

ACCESSION NR: AP4040699

ASSOCIATION: none

SUBMITTED: 00	ATD PRESS: 3047	ENCL: 00
SUB CODE: MM	NO REF SOV: 003	OTHER: 000

Card 3/3

ACCESSION NR: AP4040699

and a peeling strength of 266—275 kg per spot. The failure occurred mostly in base metal in the form of a tear along the spot weld perimeter. A welding current higher than 48 ka overheated the metal and produced metal sputtering and voids in the welds. A smooth decrease of the heat-treating current prevents formation of cracks, improves weld ductility, but increases the width of the zone of columnar dendrites. The welding current changes affect the weld strength more strongly than the changes in the current pulse duration. The microstructure of the weld nugget consists of large grains of α-solid solution, a second phase (an AL-Mg intermetallic compound) located along the axes of center-oriented columnar dendrites, and a strengthening phase (an Al-Mg-Zn intermetallic compound) which, however, can be detected only with the electron microscope. The microhardness of the dendrite crystals, 90—100 HD, is somewhat higher than that of the disoriented crystals of the central zone of the nugget. The base metal and the heat-affected zone have a microhardness of 150 and 140 HD, respectively. The V92 alloy can be welded to AMg6H alloy. The strength of the single spot welds in this case was about 15% lower. Orig. art. has: 3 figures and 1 table.

Card 2/3

ACCESSION NR: AP4040699 S/0135/64/000/006/0019/0021

AUTHOR: Grigor'yev, V. A. (Engineer); Grishina, A. D. (Engineer)

TITLE: Spot welding of V92 aluminum alloy

SOURCE: Svarochnoye proizvodstvo, no. 6(630), 1964, 19-21

TOPIC TAGS: aluminum zinc magnesium alloy, V92 alloy, alloy spot welding, alloy spot weld, weld property, AMg6H alloy, aluminum zinc alloy, magnesium containing alloy

ABSTRACT: The weldability of V92 high-strength, heat-resistant, aluminum-base alloy (3.9—4.6% Mg, 2.9—3.6% Zn, 0.6—1.0% Mn, 0.0001—0.005% Be) in spot welding has been studied. The best results in welding sheets 2—3 mm thick were obtained with a welding current of 44 ka, a current pulse duration of 0.08 sec, an electrode pressure of 1100 kg, heat treating with a current of 23 ka for 0.14 sec, and a forging pressure of 2000 kg applied for 0.06 sec. The welds obtained under these conditions had a shear strength of 810—920 kg per spot

Card 1/2

GRISHINA, A.D.

Electron paramagnetic resonance method of studying the primary radical products of radiolysis of polyvinyl alcohol. Dokl. AN SSSR 150 no.4:809-812 Je '63. (MIRA 16:6)

1. Institut elektrokhimii AN SSSR. Predstavleno akademikom A.N. Frumkinym.
(Vinyl alcohol polymers) (Radiation)
(Radicals(Chemistry)--Spectra)

S/020/60/131/[illegible]
[illegible]/[illegible]

[illegible] ...

[illegible] irradiation and heat treatment were [illegible] [illegible] e.p.r. spectra (P1,3.) and [illegible]. [illegible] [illegible] centers and the line width were the [illegible] [illegible] of measurement. There are 4 figures [illegible].

[illegible]: Institut elektrokhimii Akademii nauk [illegible] Electrochemistry of the Academy of Sciences [illegible]

[illegible]: December 25, 1961, by A. N. Frumkin, [illegible]

[illegible]: December 20, 1961

[illegible] 1. Concentration of paramagnetic centers [illegible] of heat treatment. (1) [illegible]; (2) [illegible], (3) [illegible].

[illegible] 2. [illegible] of the e.p.r. spectral line versus the temperature [illegible], (3) in the presence of atmospheric oxygen; (4) [illegible] [illegible], [illegible]; (1) $5 \cdot 10^{-5}$ [illegible], [illegible]; (2) [illegible], [illegible].

up to 10^{-1} $ohm^{-1}cm^{-1}$ for irradiated polyethylene samples preheated to 600°C, with some slowdown at 500 - 600°C and 10^{-9} to 10^{-8} $ohm^{-1}cm^{-1}$. The equation $\sigma = \sigma_0 e^{-\Delta E/2KT}$ (E = activation energy) is valid in the range of -25°C to +150°C, with ΔE being constant for each sample. The differential thermo-emf was related to copper. When the temperature of the sample was raised from 620 to 950°C, values of the thermo-emf between 290 and 1 μv/deg were obtained, with the sign of the thermo-emf corresponding to p-type conductivity in each case. The thermo-emf measured in vacuo is independent of the mean temperature of the sample between -50 and +150°C with ΔT = 7 to 10°C. The presence of oxygen leads increases σ and the thermo-emf, and decreases ΔE down to a definite temperature which depends on the temperature to which the sample was previously heated. The experiments also showed indicate that resistivity decreases with increasing frequency, the former having a constant value of 10^{12} ohm-cm at 0 - 12 mc/sec; it is thus proved that the material under consideration is heterogeneous and contains regions of high conductivity which extend with increasing temperature of heat treatment. Structural changes in the

Card 2/4

37170
S/020/62/144/001/010/024
B124/B101

5.4600
5.2540

AUTHORS: Bakh, N. A., Bityukov, V. D., Vannikov, A. V., and Grigoriev, A. D.

TITLE: Electric and paramagnetic characteristics of products obtained by radiation and heat treatment of polyethylene

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 1, 1962, 155-158

TEXT: The conductivity of high-density polyethylene irradiated in vacuo at about 60°C with doses up to 10^{24} ev/g can be increased substantially by successive heat treatments at different temperatures up to 1000°C, thus leading to semiconductor materials. The powdered materials pressed between disk electrodes were investigated in vacuo ($\sim 10^{-5}$ mm Hg) and at temperatures ranging from -180 to +200°C. Conductivity was independent of both the grain size of the powder and the electrode material. In all cases, σ_{200}, monotonically increased as the temperature of heat treatment was increased, i. e., from about 10^{-16} $ohm^{-1}cm^{-1}$ for unpyrolyzed irradiated polyethylene

Card 1/3

of epr at 77°K, and the yields [illegible] on the [illegible] of the [illegible] tion show $G(R)_{epr} \geq G(R)_{react}$ for the various solvents except for nectar for which $G(R)_{epr} = 1.4$ and $G(R)_{react} = 36$, which [illegible] processes other than radical ones participate. Yu. B. Yakovlev and G. I. Semenova are thanked for taking the spectra. There are 4 figures, 1 table, and 11 references: 4 Soviet and 7 non-Soviet. The four most recent references to English-language publications read as follows: R. Lattier, M. S. Matheson, J. Chem. Phys., 28, 1169 (1958); R. S. Alger, T. H. Anderson, L. A. Webb, J. Chem. Phys., 30, 695 (1959); G. W. Adams, J. H. Baxendale, J. Am. Chem. Soc., 80, 4215 (1958); G. Meshitsuka, M. Burton, Radiation Res., 8, 285 (1958).

ASSOCIATION: Institut elektrokhimii Akademii nauk SSSR (Institute of Electrochemistry of the Academy of Sciences USSR)

PRESENTED: September 27, 1961, by A. N. Frumkin, Academician

SUBMITTED: September 23, 1961

Card 3/4

free solution of LMB, irradiation (at temperatures $>77^{o}K$) led to formation of MB, the concentration of which increased linearly up to $\sim 10^{19}$ ev. The yield of MB increased with increasing concentration of LMB and increasing temperature. The life of the free radicals was shorter in methanol solution of LMB than in pure methanol. 10^{-6} - 10^{-4}M oxygen-free solutions of MB were discolored by irradiation. The reduction is reversible by supply of O_2 at room temperature. The radiation yield of the MB reduction is independent of temperature. The following conclusions are drawn from epr spectra and radical yields: (1) The epr spectrum of CH_3OH is a superimposition of $\dot{C}H_2OH$ and $CH_3\dot{O}$ spectra with the ratio 2 : 1. (2) LMB oxidation takes place through radiolysis products of the solvent in the presence of CH_3OH, predominantly through $CH_3\dot{O}$. (3) The experimental data are insufficient for interpreting the MB reduction. There is no dependence between concentration of radicals and oxidation. The temperature independence of this reaction suggests participation of hot H atoms and thermal electrons. (4) The radiation yields of radicals, determined by meas-

34479
S/020/62/142/004/014/020
B101/B110

11.1510
11.1360

AUTHORS: Larin, V. A., Grishina, A. D., and Bakh, N. A.

TITLE: Investigation of the mechanism of radiation oxidation and reduction by electron paramagnetic resonance

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 4, 1962, 867-870

TEXT: The redox conversions of the pair methylene blue (MB) - leuco base of methylene blue (LMB) under the action of ionizing radiation was investigated by determining type and concentration of the free radicals by means of epr. The preparation of solutions of MB and LMB in methanol, acetone, and nitro-methane had been described earlier (DAN, 139, 406 (1961)). Gamma radiation was supplied by Co^{60} (1.25 Mev), Cs^{137} (0.60 Mev), or X-rays (0.08 Mev). The intensity was $3.2 \cdot 10^{14}$ - $5.5 \cdot 10^{15}$ ev/g·sec, the total dose 10^{17} - 10^{19} ev/g. The color change was measured with an СФ4 (SF4) or СФ2М(SF2M) spectrophotometer adapted for measurements in the range of 77 - 293°K. The epr spectra were recorded by means of an ЭПР-2 (EPR-2) radiospectrometer of the IKhF. Irradiation of samples and measurement of epr were conducted at 77 - 153°K. In 10^{-6} - 10^{-2} M oxygen

Card 1/3

therefore, suitable for making test tubes used in radiation chemistry. The work on EPR and x ray irradiation was carried out in the Laboratoriya radiatsionnoy khimii (Radiation-Chemistry Laboratory), directed by Doctor of Chemical Sciences N. A. Bakh, who took a direct part in the discussion of the results. There are 8 figures and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut stekla (All-Union Scientific Research Institute for Glass); Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry, AS USSR); Institut elektrokhimii AN SSSR (Institute of Electrochemistry, AS USSR)

Electron paramagnetic resonance ... S/844/62/000/000/114/120
D207/D307

amount of B_2O_3. Samples were prepared from quartz sand and from materials of 'pure' and 'analytically pure' grades, in corundum crucibles heated to 1450 - 1570°C. The glasses were irradiated with 800 kev electrons at the rate of 10^{21} ev.cm^{-3}.hour^{-1} at room temperature, or with 50 kev x rays (10^{17} ev.cm^{-3}.sec^{-1}) at 77 - 420°K. The spectra were recorded with an apparatus based on MS - (SR-2) of the Institut khimicheskoy fiziki (Institute of Chemical Physics). It was found that in some cases there was no correlation between coloring and generation of paramagnetic centers by electrons and x rays. The addition of Fe_2O_3 or CeO_2 reduced the EPR signal intensity of the irradiated glasses, while the other additives either raised the original signal intensity (Al_2O_3 or alkali oxides together with B_2O_3) or produced an additional peak (B_2O_3 alone or BaO). Annealing of irradiated glasses reduced the concentration of paramagnetic centers produced by second irradiation. Using this information a glass of unstated composition, named 'A', was prepared, which gave no noticeable EPR signal after irradiation and was,

Card 2/3

44246

S/844/62/000/000/114/129
D207/D307

AUTHORS: Brekhovskikh, S. M., Veremchinskiy, I. V., Grishina, A. D., Zelentsova, S. A., Revina, A. A. and Tykachinskiy, I. D.

TITLE: Electron paramagnetic resonance in irradiated glasses of various compositions

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 660-667

TEXT: The purpose of the work was to prepare a glass for making test tubes and ampoules used in EPR studies of irradiated substances; such glass must not given an apppreciable EPR signal after being subjected to an ionizing radiation. The basic glass composition was $3SiO_2.0.5Al_2O_3.0.75CaO.0.2MgO$, which was varied by additions of Na_2O, K_2O, Li_2O, BaO, CeO_2, or Fe_2O_3, by altering the proportions of CaO or MgO, and by replacing 20 wt.% SiO_2 with the same

Card 1/3

NARYADCHIKOV, D.I.; GRISHINA, A.D.; BAKH, N.A.

Generation of electron paramagnetic resonance spectra during X-irradiation. Prib. i tekh. eksp. 7 no.3:192-193 My-Je '62. (MIRA 16:7)

(Paramagnetic resonance and relaxation) (X rays)

GRISHINA, Antonina Andreyevna; SERGEYEV, Nikolay Aleksandrovich; KOROTKOV, S.N., retsenzent; SUBBOTIN, S.S., retsenzent; FUDNIK, F.P., nauchnyy red.[deceased]; GUSEVA, A.I., red.; KNAKNIN, M.T., tekhn. red.

[Technology of the tailoring of women's coats]Tekhnologiia poshiva zhenskikh pal'to. Moskva, Rostekhizdat, 1962. 231 p. (MIRA 16:4)

(Tailoring (Women's))

ACC NR: AP7002021

range is investigated in this article. This effect is, in fact, an initial distribution of errors connected with the introduction of ART-system. The problem is solved for two detection systems: (1) With a "k out of N"-logic storage and (2) With a "k-sequence out of N"-logic storage. It is found that the mean probability of ART introduction is: $E(P_{\text{ввода}}) = D\int_{-A}^{A} P_{\text{ввода}}(\varepsilon) W_0(\varepsilon)\, d\varepsilon = D\int_{-A}^{A} \frac{M(\varepsilon)}{M(0)} W_0(\varepsilon)\, d\varepsilon$, which means that this probability depends on the following: probability of correct target detection D over one search cycle; initial distribution of introduction errors $W_0(\varepsilon)$; parameters of the tracking system proper. Orig. art. has: 4 figures and 38 formulas.

SUB CODE: 17 / SUBM DATE: 16Apr65 / ORIG REF: 004

Card 2/2

ACC NR: AP7002021 SOURCE CODE: UR/0142/66/009/005/0630/0637

AUTHOR: Grishin, Yu. P.; Shlomin, V. I.

ORG: none

TITLE: Probability of catching the target by the tracking system of an automatic range finder with automatic target search

SOURCE: IVUZ. Radiotekhnika, v. 9, no. 5, 1966, 630-637

TOPIC TAGS: radar rangefinding, ranging, target tracking

ABSTRACT: The transition from automatic target searching to automatic range tracking (ART) is examined. Both the signal pulse and search-system gating pulse are assumed to be square-shaped. The effect of the relative positions of (a) the zero point on the time-discriminator characteristic and (b) the characteristic point on the signal pulse upon the probability of presence of a target within a certain

Card 1/2 UDC: 621.396.96

ACC NR: AP6032922

example for N = 40 was calculated on a digital computer for both types of logic, and the results reported as curves representing the number of pulses required for signal detection, with a specified probability. It is found that, with equal probabilities of false alarm and with a certain signal-to-noise ratio, the (practically simpler) "a" type detector is inferior to the "b" type detector. The disadvantage of the "a" detector increases with decreasing probability of false alarm. Orig. art. has: 3 figures and 12 formulas.

SUB CODE: 17, 09 / SUBM DATE: 09Oct64 / ORIG REF: 001 / OTH REF: 004

Card 2/2

ACC NR: AP6032922 SOURCE CODE: UR/0142/66/009/003/0340/0344

AUTHOR: Grishin, Yu. P.; Shlomin, V. I.

ORG: none

TITLE: Statistical characteristics of the discrete detector with nonoptimal logic

SOURCE: IVUZ. Radiotekhnika, v. 9, no. 3, 1966, 340-344

TOPIC TAGS: radar detection, discrete detector, signal noise separation

ABSTRACT: Two radar detectors, (a) with "k in succession out of N" logic and (b) with "k out of N" logic, are compared with respect to their probabilistic characteristics: the probability of correct detection and the probability of false alarm. As no analytical expression for the probabilities of the "a" logic is known, the problem is solved approximately by using the method of generating functions. For the "b" logic, exact formulas are presented. A numerical

Card 1/2 UDC: 621.396.96:681.142.5

L 23782-65
ACCESSION NR: AT5003292

utilized simple physical models of the observed events. The article also contains diagrams of the pulsed photomultipler current for various scintillators at E=4.43 Mev, of the amplitude of the pulse voltage as a function of the saturation current for various scintillation times, of the current pulses for a scintillation time of 5 nsec. and various degrees of uncertainty in the time of flight (describable by a constant T), of the dependence of the current and voltage pulse amplitudes on T, of the saturation amplitude versus the scintillation constant, and of the current and voltage pulses across the loads as a function of time. The results of theoretical calculations are in good agreement with present and previously published experimental data (G. G. Doroshenko, Ye. L. Stolyarova, Sbornik rabot po nekotorym voprosam dozimetrii i radiometrii ioniziruyushchikh izluchenii, no. 2, M., Gosatomizdat, 1961, p. 129). Orig. art. has: 9 formulas, 11 figures, and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NO REF SOV: 006 OTHER: 005

Card 2/2

L 23782-65 EWG(j)/EWT(1)/EWT(m)/EPF(c)/EWP(j)/EEC(b)-2/EWA(h)/EWA(1)
Pc-4/Pr-4/Peb RM

ACCESSION NR: AT5003292 S/2892/64/000/003/0110/0124

AUTHOR: Doroshenko, G.G.; Fedorov, V.A.; Barabanov, I.R.; Grishin, Yu. L. B+1

TITLE: Analysis of a photomultiplier operating in the nonlinear region 25

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Voprosydozimetrii i zashchity ot izlucheniy, no. 3, 1964, 110-124

TOPIC TAGS: photomultiplier, saturated photomultiplier, scintillation counter, photomultiplier theory, sodium iodide scintillator, radiation dosimeter

ABSTRACT: Photomultipliers operating in the nonlinear region may exhibit valuable properties (see, e.g., G.G. Doroshenko, Ye. L. Stoiyarova, Neutron Dosimetry, Proc. of Symposium on neutron detection, dosimetry, and standardization, Harwell, 10-14 Dec, 1962. International Atomic Energy Agency, Vienna, vol. 2, 363, 1963). Since such operations may involve complicated processes, the authors carried out an analysis of photomultipliers working under high saturation conditions. On the one hand, the analysis was based on experimental data concerning the dependence of the output pulses from various electrodes of the system on the energy of secondary particles (for NaI(Tl), anthracene, stilbene, tolun, and naphthalene crystals), on the scintillation time of scintillators, and on the time constant of the RC load; on the other hand, the analysis

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MAGNER, Leonid Mironovich, kand.tekhn.nauk; KIRIN, Yuriy Pavlovich; LEKHAN, Yuriy Kondrat'yevich; STEPANENKOV, Roal'd Vasil'yevich; GRISHIN, Yu.A., red.; SERKO, G.S., red.izd-va; TIKHONOVA, Ye.A., tekhn.red.

[Problems on seamanship; manual for higher schools of marine engineering] Zadachnik po morskoi praktike; uchebnoe posobie dlia vysshikh inzhenernykh morskikh uchilishch. Moskva, Izd-vo "Morskoi transport," 1960. 218 p. (MIRA 13:9)
(Seamanship)

GRISHIN, Yu.A.

Raise the level of educational work in maritime educational institutions. Mor. flot 19 no.2:26-27 F '59. (MIRA 12:3)

1.Starshiy inzhener otdela uchebnykh zavedeniy Ministerstva morskogo flota SSSR.
(Merchant seamen--Education)

ANDRONOV, Leonid Petrovich, dotsent, kand.tekhn.nauk; BOL'SHAKOV, Vladimir Sergeyevich, dotsent, kand.geogr.nauk; YERMOLAYEV, German Grigor'yevich, dotsent, kand.fiz.-matem.nauk; ZOTEYEV, Yevgeniy Stepanovich, kand.fiz.-matem.nauk; KIRIN, Yuriy Pavlovich, starshiy prepodavatel'; CHERNIYEV, Leonid Fedorovich, dotsent, kand.fiz.-matem.nauk; GRISHIN, Yu.A., spetsred.; SERKO, G.S., red.; TIKHONOVA, Ye.A., tekhn.red.

[Handling of seagoing vessels] Morskoe sudovozhdenie. Moskva, Izd-vo "Morskoi transport," 1959. 381 p. (MIRA 13:2)
(Ship handling)

Grishin, Yu. A

KHAYUROV, S.; GRISHIN, Yu., inzh.-sudovoditel'

Training ship captains for the merchant marine. Mor. flot 18 no.1: 18-20 Ja '58. (MIRA 11:1)

1. Nachal'nik otdela uchebnykh zavedeniy Ministerstva morskogo flota.
(Ship handling--Study and teaching)

KRAVCHUK, Ivan Ivanovich, MOROKHIN, Boris Grigor'yevich,; GRISHIN, Yu.A., red.; PETIN, M.I., red. izd-va,; TIKHONOVA, Ye.A., tekhn. red.

[Teaching ship care to first class seaman] Proizvodstvennoe obuchenie matrosov 1 klassa. Moskva, Izd-vo "Morskoi transport," 1958. 219 p. (MIRA 11:11)

(Naval education)

GRISHIN, Yu.

Lomonosov and navigation. Mor. flot 25 no.4:41-42 Ap '65.
(MIRA 18:6)

PANTELEYEV, A.S.; GILEVA, N.M.; GUSHIN, Ye.S.

Solving certain geological problems using photogeodesimetry in the oil fields of Orenburg Province. Neftekhoz.42 no.4:52-56 Ap '64. (MIRA 17:5)

Investigation of the Action of Low-Energy Electrons on ... /57 2: 7-5/35
the p-n-Transition in Germanium

surface recombination plays apparently a great rôle and the amount of the phenomena is bound to be to a great extent dependent on the surface state. This problem demands further investigations. Yu.P.Maslakovets and A.M.Bonch-Bruyevich discussed the paper with the authors. M.M.Bredov put the samples at the authors' disposal. There are 4 figures and 3 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M.I. Kalinina (Leningrad Polytechnical Institute imeni M.I.Kalinin)

SUBMITTED: May 18, 1957

... Germanium-Electron transitions

Card 2/2

AUTHORS: Soltamov, U. B., Grishin, Ye. S. 30/57-28-7-5/35

TITLE: Investigation of the Action of Low-Energy Electrons on the p-n-Transition in Germanium (Issledovaniye deystviya elektronov malykh energiy na p-n perekhod v germanii)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Vol. 28, Nr 7, pp. 1594 - 1596 (USSR)

ABSTRACT: The action of electrons within the energy range up to 1000 eV on the p-n-transition in germanium was investigated. A scheme of the device is given. The direction of the irradiation by the electrons was vertical to the plane of the p-n-transition. An electronic gun served as electron source. The influence of the effect of the secondary emission on the measurements was prevented. Three p-n-transitions which were obtained according to the method of thermal conversion by Bredov (Ref 3) were investigated. The results of the investigation show that the action of slow electrons on the p-n-transition is according to the character of the phenomena analogous to the action of other types of irradiation on the p-n-transition. Since the slow electrons do however not penetrate deeply into germanium, the

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SOV/22-5-16/22

Utilisation Possibilities of Cathodic Conductance for Amplification of Electrical Signals. Data from the VIII All Union Conference on Cathode Electronics, Leningrad

can be used for recording electron currents; this is true for the increase of the transconductance of electron valves. For this purpose the metal anode of the valve is to be replaced by a semiconductor with a p-n transition situated near the surface directed towards the cathode. An inverse voltage is to be applied to the transition. Figure 2 shows the amplification cascade of such a valve in a diagram. The general dependence of the current i on the feeding voltage Up of the p-n transition is shown on figure 3. Here the anodic current i_a has been chosen as a parameter. The working-out of the mentioned valve requires many additional examinations concerning stability, temperature range, and so on. In the discussion of this paper M. I. [illegible], N. L. Yasnopol'skiy, U. B. Sinel'nikov, as well as the last mentioned author took part. There are 3 figures and 1 Soviet reference.

Card 2/2

1. Semiconductors--Performance 2. Secondary emitters--Performance 3. Cathodes (Electron tubes)--Electrical properties 4. Electron amplifiers--Applications

AUTHORS: Bonch-Bruyevich A.M., Grishin, Ye S., Soltamov, U.B. 48-22-5-16/22

TITLE: Utilisation Possibilities of Cathodic Conductance for Amplification of Electrical Signals. (O vozmozhnosti primeneniya katodoprovodimosti dlya usileniya elektricheskikh signalov) Data from the VIII All Union Conference on Cathode Electronics. Leningrad, October 17-24, 1957 (Materialy VIII Vsesoyuznogo soveshchaniya po katodnoy elektronike, Leningrad, 17-24 oktyabrya 1957 g.)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958, Vol. 22, Nr 5, pp. 605-606 (USSR)

ABSTRACT: If a semi-conductor is irradiated by electrons, while a p-n-transition is in the vicinity to which an inverse voltage U_o is applied (figure 1), the appearance of an emitter amplification in the p-n-transition can be observed. This consists of the induction of a current i_1 of minority carriers, which is greater by a factor of α than the current of the exciting electrons. This happens only under certain conditions, if $\alpha < 1$. The emitter amplification mentioned

Card 1/2

GRISHIN, V.N., ILIINSKIY, N.A., KOPYLOV, I.P.

[illegible]

[illegible]

[illegible]

GRISHIN, Ye.N.

Endemic pathology of esophagus cancer in Aktiubinsk Province. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 8:23-27 '62. (MIRA 17:7)

L 11284-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS--AFFTC/ASD--Ps-4/Pc-4/ 70
Pr-4--RM/WW

ACCESSION NR: AT3001262 S/2915/62/013/000/0040/0041

AUTHOR: Grishin, Ye. I.; Krasil'nov, N. A.

TITLE: Modern methods for protecting the submerged portions of ships from fouling

SOURCE: AN SSSR. Okeanograficheskaya komissiya. Trudy, v. 13, 1962. Zashchita ot morskogo obrastaniya, 40-41

TOPIC TAGS: marine antifouling compound

ABSTRACT: In 1959-1960, Soviet scientific research institutes developed two oilless antifouling paints: 1) KhV-53, based on perchloro vinyl tar, and 2) KhS-79, based on vinyl chloride- vinyl acetate copolymer, both of which contain copper- and P oxide.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 28May63 ENCL: 00

SUB CODE: CH NO REF SOV: 000 OTHER: 000

ls/W
Card 1/1

GRISHIN, Ye.I., inzhener-kapitan 1-go ranga; BIRINBERG, M.E., inzh.

Protection of ship hulls and surfaces by paint and varnish and synthetic coatings. Mor. sbor. 44 no.5:69-76 My '61.
(MIRA 16:5)

(Ships—Painting) (Protective coatings)

S/081/61/000/022/072/076
B144/B138

AUTHORS: Grishin, Ye. I., Birinberg, M. E.

TITLE: Water resistant incombustible oilfree coatings on the basis of perchlorovinyl varnishes and enamels

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 476, abstract 22P228 (Lakokrasochn. materialy i ikh primeneniye, no. 1, 1961, 55- 56)

TEXT: Nowadays, perchlorovinyl enamels (PE) are widely used for painting the external surfaces of ships and boats. General characteristics of PE are given, together with the properties of coatings on their base, conditions for the effective anticorrosion protection of metal from sea water, and information on the use of priming and surface coatings on a PE basis. The use of PE improved the quality and prolonged the life of coatings, and made it possible to replace the inadequate, expensive oil paints which are nonresistant to sea water and made from white lead and natural boiled linseed oil. Studies are being continued to improve the light stability of PE. [Abstracter's note: Complete translation.]

Card 1/1

GRISHIN, Ye.I.; BIRINBERG, M.E. [deceased]

Water-resistant, incombustible, oil-free coatings based on perxhlorovinyl lacquers and enamels. Lakokras.mat.i ikh prim. no.1:55-56 '61. (MIRA 14:4)

(Protective coatings) (Paint materials)