

L 13330-63

EWT(1)/EWT(m)/BDS

AFFTC/AMD/ASD

AR/K

ACCESSION NR: AP3003926

8/0205/63/003/004/0518/0522

AUTHOR: Leonov, B. V.; Lomova, M. A.; Rudakov, I. A.

56

TITLE: Relation of radiosensitivity of rats with antioxidation activity of bone marrow and nonesterified fatty acid content in their blood while in a stress condition

SOURCE: Radiobiologiya, v. 3, no. 4, 1963, 518-522

TOPIC TAGS: antioxidation, bone marrow, nonesterification, fatty acid, stress reaction, radiosensitivity

ABSTRACT: Experiments were performed to determine changes in antioxidation activity of bone marrow and the NEFA (nonesterified fatty acid) content of the blood during a condition of stress and to compare them with changes in radiosensitivity of the organism during the same period. Female white rats were used for the experiment. Group I was exposed to irradiation but not subjected to stress. Groups II and III were subjected to stress produced by a 2-mamp electric current of 2-sec duration given at 2-min intervals. Group II animals were irradiated immediately after one hr of exposure to electric stress. Group III animals were subjected to irradiation 24 hr after exposure to electric stress for

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3 hr. In all cases irradiation was produced by Co⁶⁰ using EGO-2 equipment in 700-r doses at the rate of 260 r/min. A stress condition was found to lower the antioxidation activity of bone marrow, increase the NEFA content of the blood, and increase the radiosensitivity of rats. It is conjectured that owing to mobilization of fats from fat deposits antioxidizing agents are used up more rapidly in a stress condition and that one of the mechanisms responsible for an increase in radiosensitivity of animals in a state of stress may be the oxidation of mobilized lipides. Orig. art. has: 3 tables. 0

ASSOCIATION: none

SUBMITTED: 10Sep62

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: AM

NO REF SOV: 010

OTHER: 014

Card 2/2

LOMOVA, M.A.

Mobilization of fatty acids in animals during generalization.
Radiobiologia 3 no.5.663.666 1962. (MIR 19 7)

L 17548-63

EWT(1)/BDS/ES(*)/ES(j)/ES(c)/ES(k)

AMD/AFFTC

Pb-4

A/DD

ACCESSION NR: AP3004436

S/0020/63/151/004/0982/0985

AUTHORS: Gyurdzhan, A. A.; Lomova, M. A.; Radkevich, L. A.

63

TITLE: Quantity of non-esterified fatty acids in the plasma of rats subjected to acceleration

SOURCE: AN SSSR. Doklady*, v. 151, no. 4, 1963, 982-985.

TOPIC TAGS: fatty acid, plasma, acceleration.

ABSTRACT: White male rats, weighing 130-160 g, were subjected to accelerations of 2, 5, and 20g (in some cases 10, 15, 25, and 30g) for 5 min. Immediately after deceleration or after 30 min, or 2, 4, or 24 hrs, blood was obtained from rats by decapitation. Determination of non-esterified fatty acids (NEFA) in plasma immediately after deceleration showed that the level of these substances was elevated in all rats except those subjected to 30g acceleration. An acceleration of 2g produced a 19% increase in the NEFA level, while accelerations of 5-25g produced almost identical increases (35%). This increase was more marked if determinations were made later. A relationship was found in these cases between the rate of acceleration and the increase in the NEFA level. The growth rate was slower in a group of rats subjected to 1.5-2g acceleration every day (except Sundays) for 2.5 months. There were no differences in the NEFA levels in experi-

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ACCESSION NR: AP3004436

mental and control groups. The response of rats, which had been subjected daily to 2g acceleration, to a single acceleration of 10g for 5 min, as reflected by the increase in the NEFA level, set in considerably later and lasted somewhat longer than in the control group. The authors consider increases in the NEFA level produced by acceleration to be a stress reaction. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 11Feb63

DATE ACQ: 21Aug63

ENCL: 00

SUB CODE: AM

NO REF SOV: 004

ENCL: 008

Cord 2/2

ACCESSION NR: AP4015088

s/0205/64/004/001/0072/0075

AUTHOR: Leonov, B. V.; Lomova, M. A.

TITLE: Change in total fatty acid level of tissue cultures after gamma-irradiation

SOURCE: Radiobiologiya, v. 4, no. 1, 1964, 72-75

TOPIC TAGS: gamma-irradiation, fatty acid level, tissue culture strain Ner-2, lipid metabolism, nitrogen level, histochemical lipid investigation, lipid-protein ratio

ABSTRACT: The effect of gamma-irradiation on lipid metabolism was studied in tissue culture cells (strain Ner-2) biochemically and histochemically. The cells were gamma-irradiated (EGO-2 unit, 270 r/min) with single 400 r doses and investigated 4 days later. Total fatty acids were determined by Dole's method in 10-15 million cells after preliminary saponification of lipids and were expressed in microequivalents of palmitic acid for 10 million cells. Total nitrogen level of cells was determined. Cells were grown in a single layer and then stained with scarlet red for morphological investigation. Findings show that the total fatty acid level is 3.27 microequivalents

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ACCESSION NR: AP4015088

for irradiated cells compared to 1.81 microequivalents for control cells and that nitrogen levels are practically equal with 0.50 mg for irradiated cells and 0.52 mg for control cells. Histochemical investigations revealed the presence of lipids in control and irradiated cell protoplasm, but visually no appreciable difference in their number could be found. Possible explanations for the higher lipid level in irradiated cells include increased synthesis of fats, lower consumption of fats, and intensified absorption of ready lipids from the nutritive medium. The lipid-protein ratio of 6.3 for irradiated cells and 3.6 for control cells suggests extensive cell degeneration by the 4th day after irradiation. Lack of quantitative difference in lipids between control and irradiated cells determined histochemically does not contradict biochemical findings because the histochemical method does not reveal finer quantitative changes. The accumulation of lipids in irradiated cells may be a radioprotective reaction as found for example in irradiated yeast cells. Orig. art. has: 1 figure, 1 table.

ASSOCIATION: None

Card 2/3

ACCESSION NR: AP4015088

SUBMITTED: 23Apr63

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: LS

NO REF SOV: 010

OTHER: C04

Card 3/3

DOROZHINSKIY, V.B.; KUDRYASHOV, Yu.B.; LOMOVA, M.A.

Distribution of carbon-labeled oleic acid in the animal organism.
Nauch.dokl.vys.shkoly; biol.nauki no.3:77-80 '65. (MIRA 18:8)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo universiteta.

I 3925-66 ESS-2/EWT(1)/ES(v)-3 DD/RD
ACC NR: AP5024151

SOURCE CODE: UR/0216/65/000/005/0633/0646

AUTHOR: Kas'yan, I. I.; Krasovskiy, A. S.; Kolosov, I. A.; Lomova, M. A.; Lebedev, B
V. I.; Yurov, B. N.

ORG: none

TITLE: Some physiological reactions of man to short-term weightlessness

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 5, 1965, 633-646

TOPIC TAGS: weightlessness, parabolic flight, human physiology, vestibular analyzer

ABSTRACT: Experiments were conducted with the participation of 31 men (aged 23—38 yr) representing various professions. The subjects were subdivided into 4 groups according to profession. Parabolic flights took place on a jet aircraft where weightlessness could be produced for 40—50 sec. Examinations took place before and after weightlessness and g-forces were 2.5—3.5 g with 2—3 min breaks between parabolas. In all, 120 flights representing 360 parabolas were flown. During the flights, the bioelectricity of the brain (EEG), heat biopotentials (EKG), respiration rate, blood composition, and vestibular reactions were studied. Results are given in Figs. 1 and 2 and Tables 1 and 2. It was concluded that periodic parabolic flights are useful in acquainting cosmonauts with short-term weightlessness and establishing criteria for selecting space-flight crews. No pathological alterations in physiological function or radical deviations in blood morphology or biochemistry were noted as a result of parabolic flights.

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UDC: 629.195:612.829.3

L 3925-66

ACC NR: AP5024151

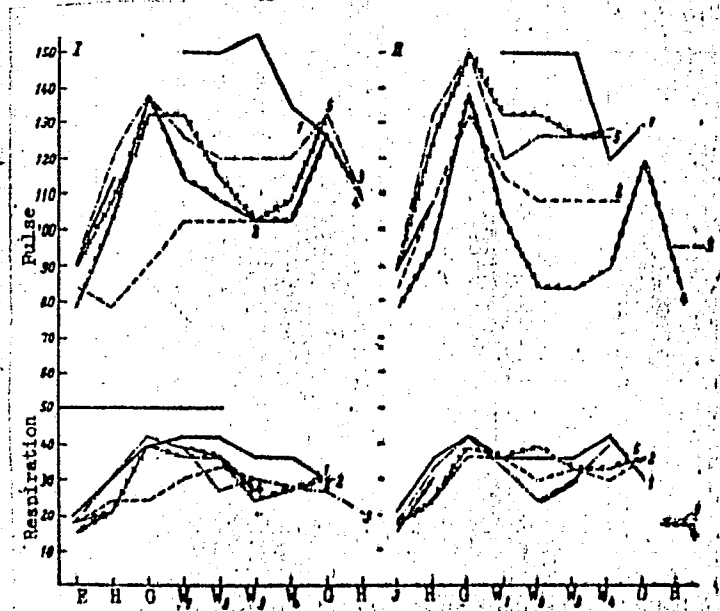


Fig. 1. Change in pulse and respiration rate of a subject at various stages of parabolic flight.

I - First parabola; II - third parabola; 1-5 - sequence of flights; E - Earth; H - horizontal flight; G - g-load; W - weightlessness (W_1 - 10. sec; W_2 - 20 sec; W_3 - 30 sec; W_4 - 40 sec).

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I 3925-66
ACC NR: AP5024151

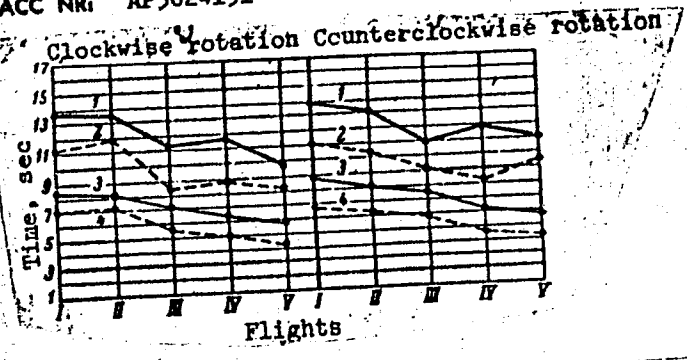


Fig. 2. Duration of postrotational nystagmus (1 - before, 2 - after flight) and counterrotation illusions (3 - before, 4 - after flight) during the performance of a Voyachek otolithic probe

Table 1. Changes in respiration rate at various stages of parabolic flight (compared with horizontal flight prior to weightlessness)

Change in resp. rate	G load	Weightlessness			G load	Horizontal flight
		I parab.	II parab.	III parab.		
Increase	11	9	7	—	8	—
No change	14	19	20	8	13	15
Decrease	3	3	4	—	2	11
No. investigated	28	31	31	8	23	26

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ACC NR: AP5024151

Table 2. Content of nonesterized fatty acids during parabolic flights (milliequivalents/liter)

Subject No.	1963 flight data	Before flight	After 1st flight	After 2nd flight	Comments
1	12	630	1550*	—	1. No flight before first test
	23	380	660*	660*	"
	12	200	1390*	—	2. First test after normal flight
2	16	—	270	260	3. Flight before first test
	17	—	220	310*	4. No flight before first test
	24	320	380*	—	5. 3 flights before first test
	16	—	290	260*	6. No flights before first test
3	23	260	120*	—	7. 1 flight before first test
	24	—	320	430*	8. No flights before first test
4	17	240	250*	—	"
	26	200	270*	430*	"
	17	440	550*	470	"
5	23	200	320*	—	9. First test after normal flight
	24	—	320	760*	"
6	17	—	440*	220	10. No flights before first test
	23	370	530*	—	11. First test after normal flight
7	26	—	320	300*	

* Flights simulating weightlessness

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i. 3925-66
ACC NR: AP5024151

After the first exposure to parabolic flight, it was common for the concentration of nonesterized fatty acids to increase. Criteria indicating sufficient stability to short-term weightlessness are: insignificant changes in pulse rate relative to normal values during weightlessness, abbreviated illusions of counterrotation and postrotational nystagmus after a series of parabolic flights, and the absence of unfavorable sensory and vestibular autonomic reactions characterized by spatial illusions, giddiness, or nausea. Orig. art. has: 5 tables and 4 figures. [CD]

SUB CODE: LS/ SUBM DATE: 27May65/ ORIG REF: 024/ OTH REF: 013/ ATD PRESS: 7/120

beh

Card 5/5

LOMOVA, M.F.

Materials on the species and biology of plant lice infesting
fruit crops in the lower Murgab Valley. Izv. AN Turk. SSR.
Ser. biol. nauk no.3:70-73 '63. (MIRA 17:1)

1. Institut zoologii i parazitologii AN Turkmenskoy SSR.

LONOVA, M. F.

Root aphids of the lower Murgab Valley. Izv. AN Turk, SSSR. Ser.
biol.nauk no. 6:83-85 '63. (MIRA 17:5)

1. Institut zoologii i parazitologii AN Turkmenskoy SSSR.

LOMOVA, M.F.

Fauna of plant lice living on xerophytes in the lower Murgab Valley.
Izv. AN Turk. SSR. Ser. biol. nauk no.2:77-80 '64. (MIRA 17:6)

1. Institut zoologii i parazitologii AN Turkmenskoy SSR.

L 01286-66 EWT(1)/EWT(m)/EPF(c)/EMP(j)/T/EMP(b), WP(b)/EMA(h) IJP(c)/RPL
JD/AT/GS/AT RM

ACCESSION NR: AT5020453

UR/0000/64/000/000/0087/0104

AUTHOR: Krotova, N. A.; Sokolina, G. A.; Khrustalev, Yu. A.; Agranenko, N. P.
Lomova, N. F.; Khomutov, A. M.

TITLE: Change in the surface state of germanium during the formation of an adhesion bond with a polymer

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 87-104

TOPIC TAGS: polymer, semiconductor research, protective coating, surface property, crystal surface, lacquer/ LVS-31 lacquer, HRK-1 lacquer

ABSTRACT: The authors study the effect which the functional groups in a polymer have on the surface state of germanium in connection with the use of organic polymer materials for protecting semiconductor devices from atmospheric action. The field effect method was used for experimentally studying the surface conductivity with the application of a constant field. The slow changes in conductivity with time were

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L 01200-66

ACCESSION NR: AT5020453

recorded. The material studied was *n*-germanium with a resistivity of 40 Ω -cm and a diffusion length of 2.5 mm. The specimen was a plate with dimensions of 20 x 5 x 5 mm cut from a single crystal of germanium parallel to plane (111). Ohmic contacts were fused to the ends of the specimen. The sample was etched in a peroxide-alkali mixture. The surface conductivity is shown as a function of time in fig. 1 of the Enclosure. Typical curves for conductivity in the field effect for high resistance *n*-germanium are given in fig. 2 of the Enclosure. These curves may be given as $\Delta\sigma = f(U)$ or as $\Delta\sigma = \phi(Q)$, if Q is the induced charge of a condenser determined from the capacity. Here $\Delta\sigma$ indicates the change in surface conductivity, and U gives the potential. Polymers of the vinyl series were studied with regard to the effect of the nature of functional groups and their concentration in the chain of a copolymer on the shape of $\Delta\sigma = \phi(Q)$ curves plotted from measurements in vacuum. The results are shown in fig. 3 of the Enclosure. Curves are also given for copolymers of methyl-methacrylate with methacrylic acid, for a gelatin-germanium interface (where the gelatin has functional radicals NH_2 , OH and COOH) and for polyhydroxyethylene--a polymer which has no functional polar radicals and which has oxygen bound by single bonds in the chains. A comparison of the curves indicates that functional radicals change the position of $\Delta\sigma_{\text{min}}$ noticeably, while polymers without strongly polar groups have little effect on this parameter. Compositions of polymers were studied

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L 01286-66

ACCESSION NR: AT5020453

along with individual polymers. It was found that two industrial lacquers, MBK-1 and LVS-31, offer more protection against moisture than do the individual polymers. However, the lacquer films are much thicker than the individual polymer films. It is shown that LVS-31 has a few advantages over MBK-1 as a protective film for semiconductor devices. Orig. art. has: 13 figures, 6 tables.

ASSOCIATION: none

SUBMITTED: 06Oct64

ENCL: 03

SUB CODE: SS, MT

NO REF SOV: 006

OTHER: 005

Card 3/3

LOMOVA, N. I.

"Microorganisms Which are Destructive to Cellular Tissue in the Gastrointestinal Tracts of Cattle." Sub 24 May 51, Moscow Chemicotechnological Inst of the Meat Industry

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No, 480, 9 May 55

IOMOVA, N.I.

Cellulose-splitting microorganism of the gastrointestinal system in
cattle. Mikrobiologiya, Moskva 22 no.2:155-163 Mar-Apr 1953.
(GLML 25:4)

1. Moscow Industrial Chemistry Institute of the Meat Industry.

Lomonova, N. V.

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PHASE I BOOK EXPLOITATION 507/5469

Soveshchaniye po kriticheskim yavleniyam i flyuktuatsiyam v rastvorakh. Moscow, 1960.

Kriticheskiye yavleniya i flyuktuatsii v rastvorakh; trudy soveshchaniya, yanvar' 1960 g. (Critical Phenomena and Fluctuations in Solutions; Transactions of the Conference, January 1960) Moscow, Izd-vo AN SSSR, 1960. 190 p. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova. Khimicheskii fakul'tet.

Responsible Ed.: M. I. Shakhparonov, Doctor of Chemical Sciences, Professor; Ed. of Publishing House: E. S. Dragunov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE : This collection of articles is intended for scientific personnel concerned with chemistry, physics, and heat power engineering.

Card 1/9

Critical Phenomena and Fluctuations

SOV/5469

COVERAGE: The book contains 24 of the 26 reports read at the Conference on Critical Phenomena and Fluctuations in Solutions organized by the Chemical Division of Moscow State University, January 26-28, 1960. The reports contain results of investigations carried out in recent years by Soviet physicists, chemists, and heat power engineers. The Organizing Committee of the Conference was composed of Professor Kh. I. Amirkhanov, A. Z. Golik, I. R. Krichevskiy (Chairman), V. K. Semchenko, A. V. Storonkin, I. Z. Fisher, and M. I. Shakhparonov (Deputy Chairman). References accompany individual articles.

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Critical Phenomena and Fluctuations

SOV/5469

Alhadov, Ya. Yu., and M. I. Shakhparonov [Laboratoriya fiziko-khimiya rastvorov, Khimicheskii fakul'tet, Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova -- Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Dielectric Properties of Solutions in a Superhigh Frequency Field and Concentration Fluctuations

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Critical Phenomena and Fluctuations

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Zatsepina, L. P., and M. I. Shakhparonov [Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Rayleigh Light Scattering in Nitrobenzene -- Cyclohexane and Ethyl Alcohol -
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Critical Phenomena and Fluctuations

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Roshchina, G. P. [Laboratoriya molekulyarnoy fiziki, Fizicheskii fakul'tet, Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko -- Laboratory of Molecular Physics, Division of Physics, Kiyev State University imeni T. G. Shevchenko] Investigation of Fluctuations in Solutions by the Method of Light Scattering 109

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Critical Phenomena and Fluctuations

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Shimanskaya, Ye. T., Yu. I. Shimanskiy, and A. Z. Golik [Laboratory of Molecular Physics, Division of Physics, Kiev State University imeni T. G. Shevchenko]. Investigation of the Critical State of Pure Substances by Topley's Method

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Resolution of the Conference on Critical Phenomena and Fluctuations in Solutions

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AVAILABLE: Library of Congress (QD545.S73)

JP/dfk/jj
10-28-61

Card 9/9

S/189/60/000/003/006/013/XX
B004/B067AUTHORS: Lomova, N. N., Shakhparonov, M. I.TITLE: Dielectric Constant and Molecular Structure of the
Solutions of Nitrobenzene in Hexane and CyclohexanePERIODICAL: Vestnik Moskovskogo universiteta. Seriya 2, khimiya, 1960,
No. 3, pp. 11-17

TEXT: In an earlier paper (Ref. 1) Shakhparonov showed that in the case of strong deviations of the solutions from the ideality, their experimentally determined macroscopic dielectric constant must be smaller than the local dielectric constant measured in a smaller unit volume of the solution. The present paper deals with the examination of this concept in nitrobenzene solutions in nonpolar solvents (n-hexane, cyclohexane). The dielectric constant ϵ was measured at approximately 700 kc/sec by means of a WMEB-1 (IIYeV-1) apparatus. Furthermore, the authors determined the density ρ_4^t and the refractive index n_D . The experimentally found negative deviation of ϵ from the additivity was caused by the con-

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Dielectric Constant and Molecular Structure
of the Solutions of Nitrobenzene in Hexane
and Cyclohexane

S/189/60/000/003/006/013/XX
B004/B067

centration fluctuations. In the region of the separation of the solution into two layers with a volume portion ψ of nitrobenzene of 0.26 to 0.45 (in n-hexane) no maximum of ϵ was found in contrast to the observations made by other scientists (Ref. 3). The curve $\epsilon = f(t)$ is almost linear and changes its direction only near the disintegration temperature. In Fig. 4 $\overline{\epsilon_{loc}} - \epsilon$, the intensity I_k of the Rayleigh scattering at $\lambda = 5780 \text{ \AA}$, and the fluctuation $(\Delta\phi)^2$ of the concentration are represented as a function of the nitrobenzene content in n-hexane at 40°C . $\overline{\epsilon_{loc}} - \epsilon$ and $(\Delta\phi)^2$ are only little temperature-dependent. For the different position of the maxima of I_k and $(\Delta\phi)^2$ the following explanation is given: while I_k is mainly due to fluctuations whose linear dimensions are more than $1/20$ of the wavelength of light, i.e., at least 20-30 \AA , $(\Delta\phi)^2$ depends on the fluctuations which are not greater than twice or three times the diameter of a molecule. A calculation of the function $(\Delta\phi)^2 = f(\psi)$ on the basis of the statistical theory of the fluctuation confirmed this conclusion. The data for nitrobenzene in cyclohexane led to the same

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Dielectric Constant and Molecular Structure
of the Solutions of Nitrobenzene in Hexane
and Cyclohexane

S/189/60/000/003/006/013/XX
B004/B067

conclusions. There are 4 figures, 3 tables, and 5 references: 4 Soviet and 1 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova
kafedra fizicheskoy khimii (Moscow State University imeni
M. V. Lomonosov, Chair of Physical Chemistry)

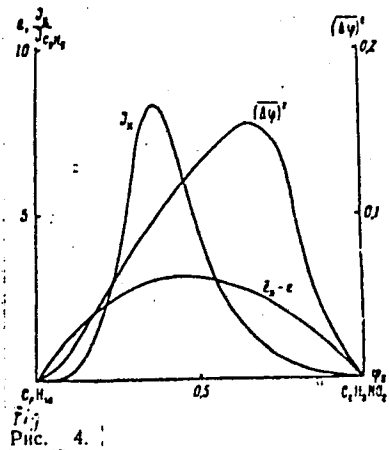
SUBMITTED: August 28, 1959

Legend to Fig. 4: $\epsilon_{loc} - \epsilon$, I_k and $(\Delta\epsilon)^2$ as function of the concentration
of nitrobenzene in n-hexane at 40°C.

✓

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S/189/60/000/003/006/013/XX
B004/B067



03905

S/020/60/134/003/019/020
B004/B067

5.4600 (1273)
11.1260

AUTHORS: Lomova, N. N., and Shakhparonov, M. I.

TITLE: The Dielectric Constant and the Molecular Structure of Solutions Having a Critical Dissociation Range

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 3, pp. 632-635

TEXT: In an earlier paper (Ref. 1) M. I. Shakhparonov obtained the following results: For solutions whose thermodynamical properties show large positive deviations from ideality, i.e., large fluctuations of concentration, the experimentally measurable dielectric constant ϵ is smaller than the average local dielectric constant $\bar{\epsilon}_{loc}$: $\epsilon = \bar{\epsilon}_{loc} - \frac{[(\partial \bar{\epsilon}_{loc} / \partial \varphi)^2 (\Delta \varphi)^2]}{[2 + (\partial \bar{\epsilon}_{loc} / \partial \varphi) / (\partial \epsilon / \partial \varphi)] \epsilon}$ (1). To study the influence exerted by the fluctuation $(\Delta \varphi)^2$ of concentration on ϵ , the authors measured ϵ , the density ρ_4^t , and the refractive index n_D of solutions of nitrobenzene (NB) in cyclohexane, n-hexane, n-heptane, and

Card 1/4

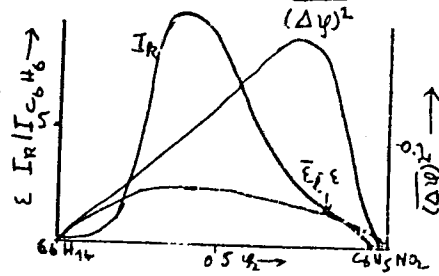
83905

The Dielectric Constant and the Molecular Structure of Solutions Having a Critical Dissociation Range

S/O20/60/134/003/G19/020
B004/B067

n-octane. The critical dissociation temperature of these solutions was found at 40°C for 48.0 mole% NB in cyclohexane; at 20.0°C for 43.15 mole% NB in n-C₆H₁₄; at 19.3°C for 47.5 mole% NB in n-C₇H₁₄; and at 19.1°C for 51.0 mole% NB in n-C₈H₁₈. On the strength of experimental data the isothermal lines for ϵ were drawn (Fig. 1), and the isothermal lines for $\bar{\epsilon}_{loc}$ were calculated by Onsager's method (Ref. 2). On the basis of data obtained for ϵ , $\bar{\epsilon}_{loc}$, $\partial \bar{\epsilon}_{loc} / \partial \psi$, and $\partial \epsilon / \partial \psi (\Delta \psi)^2$ was calculated. The dependence of $(\Delta \psi)^2$ on t and ψ was analogous in all four systems. The values depended little on the type of hydrocarbon used.

Fig. 2: dependence of $\bar{\epsilon}_{loc}$ - ϵ , I_R , and $(\Delta \psi)^2$ on the concentration ψ_2 of nitrobenzene in the system nitrobenzene - n-hexane at 40°C



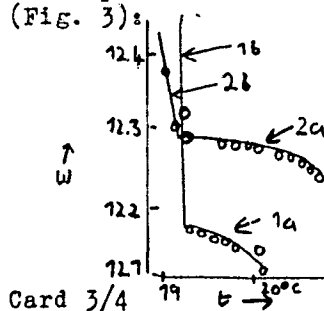
Card 2/4

83905

The Dielectric Constant and the Molecular Structure of Solutions Having a Critical Dissociation Range

S/020/60/134/003/019/020
B004/B067

Fig. 2 shows the course of $\bar{\epsilon}_{loc} - \epsilon$, $(\Delta y)^2$ and of the intensity I_k of the Rayleigh scattering for $\lambda = 5780 \text{ \AA}$ in the system nitrobenzene - n-hexane. The authors discuss the result on the basis of the statistical theory of fluctuations and of the interaction of neighboring molecules. By differentiating equation (1) they obtain equation (5) for $(\partial \epsilon / \partial t)_y$, and they conclude that the value of $(\partial \epsilon / \partial t)_y$ is reduced near the critical point. This was confirmed by measurements of ϵ in the system nitrobenzene - n-heptane and nitrobenzene - n-octane near the point of dissociation (Fig. 3):



$\epsilon = f(t)$ near the critical point of dissociation. 1 - solution of nitrobenzene in n-heptane, $x_{C_6H_5NO_2} = 0.489$; 2 - solution of nitrobenzene in n-octane, $x_{C_6H_5NO_2} = 0.514$. 1a, 2a before dissociation, 1b, 2b after dissociation.

4

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83905

The Dielectric Constant and the Molecular Structure of Solutions Having a Critical Dissociation Range

S/020/60/134/003/019/020
B004/B067

These results are contradictory to the data of Ref. 5 according to which ϵ has maxima in the critical range. The authors refer to Gibbs (Ref. 6) according to which relations of the form $(\partial X_i / \partial x_i)_{x_j} = 0$; $(\partial^2 X_i / \partial x_i^2)_{x_j} = 0$ are thermodynamically not generally and exactly valid in the critical range. Hence, the validity of such relations must be experimentally or theoretically proved for each case by means of a molecule model. There are 3 figures and 6 references: 5 Soviet and 1 US. 4

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

PRESENTED: April 4, 1960, by V. I. Spitsyn, Academician

SUBMITTED: April 2, 1960

Card 4/4

LOMOVA, R.A., ordinator.

Change in the urinary sex hormone content during male hormone therapy of functional uterine hemorrhage. Akush. i gin. 34 no.4:80-82
Jl-Ag '58 (MIRA 11:9)

1. Iz Rostovskogo-na-Donu oblastnogo nauchno-issledovatel'skogo instituta akusherstva i ginekologii (dir. - kand.med.nauk P.S. Baranovskaya).

- (MENORRHAGIA, AND METRORRHAGIA, therapy, androgens, eff. on urinary estrogens (Rus))
- (ANDRGENS, ther. use, metrorrhagia, eff. on urinary estrogens (Rus))
- (ESTROGENS, in urine in metrorrhagia during androgen ther. (Rus))

ЛОМОВА, Т. В.

LOMOVA, T.V.

Blood sugar content in healthy newborn and in those suffering from cerebral blood circulation disorders. Vop.okh.mat. 1 det. 3 no.1: 24-30 Ja-F '58. (MIRA 11:2)

1. Iz otdeleniya novorozhdennykh (nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. A.F.Tur) klinicheskoy laboratorii (zav. N.L.Vasilevskaya) Instituta akusherstva i ginekologii AMN SSSR (dir. - prof. P.A.Beloshapko)
(SUGAR IN THE BODY) (INFANTS--DISEASES)

FLEROVA, L.N., kand. tekhn. nauk, dotsent; LOMOVA, V.S., inzh.

Pattern design for a tricot jacket. Nauch. trudy MTILP no.24:
176-179 '62. (MIRA 16:7)

1. Kafedra shveyrnogo proizvodstva Moskovskogo tekhnologicheskogo
instituta legkoy promyshlennosti.
(Knit goods) (Dressmaking--Pattern design)

LOMOVATSKIY, Yefim Grigor'evich; GROMOVA, Galina Michaylovna; VASHKOVICH,
Ye.Yu., red.; ASTAKHOVA, I.V., tekhn. red.

[Administration of state-controlled trade in the U.S.S.R.]
Upravlenie gosudarstvennoi vnutrennei torgovlei v SSSR, Moskva,
Gos. izd-vo iurid. lit-ry, 1957. 174 p. (MIRA 11:9)
(Trade regulation)

AKSARIN, A.V.; ANAN'YEV, A.P.; BENEDIKTOVA, R.N.; GORBUNOV, M.G.; GRATSIANOVA, R.T.; YEGOROVA, L.I.; IVANIYA, V.A.; KRAYMVSKAYA, L.N.; KRASHOPMYEVA, P.S.; LEBEDEV, I.V.; LOMOVITSKAYA, M.P.; POLETAYEVA, O.K.; ROGOZIN, L.A.; RADCHENKO, G.P.; RZHONSNITSKAYA, M.A.; SIVOV, A.G.; FOMICHEV, V.D.; KHALFINA, V.K.; KHALFIN, L.L.; CHERNYSHEVA, S.V.; NIKITINA, V.N., redaktor; GUROVA, O.A., tekhnicheskij redaktor

[Atlas of leading forms of fossils in the fauna and flora of Western Siberia] Atlas rukovodiashchikh form iskopaemykh fauny i flory zapadnoi sibiri. Pod red. L.L.Khalfina. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geologii i okhrane neдр, Vol.1. 1955. 498 p. Vol.2. 1955. 318 p. [Microfilm] (MLRA 9:3)

1. Tomsk. Politeknicheskij institut imeni Kirova.
(Siberia, Western--Paleontology)

NEPELOVA, M.V.; LOMOVSKAYA, N.D.

Proteolytic activity of submerged cultures of albomycin-producing organisms in relation to the production of the antibiotic. *Mikrobiologiya* 29 no.1:114-118 Ja-F '60. (MIRA 13:5)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova.

(ACTINOMYCES culture)

(PROTEASES)

(ANTIBIOTICS)

LCMOVSKAYA, N.D.; ALIKHANYAN, T.I.

Characteristics of the effect of 2 actinophages on cultures of
Actinomyces sphaeroides, Antibiotiki 10 no.9:793-800 5 '65.

(MIRA 18:9)

1. Institut atomnoy energii imeni I.V.Kurchatova, Moskva.

LOMOVSKAYA, M.D.; H'INO, T.S.

Transduction of streptomycin resistance in relation to study
of the state of heterogeneity in actinomycetes. Mikrobiologiya
33 no.4:593-597 JI-Apr '64. (MIRA 18:3)

1. Institut gennoy i kletchnoy kurchatova.

MEKRTUMYAN, H.M.; LAMOVSKAYA, N.D.; VERHOVODOV, V.I.; SHCHERBA, E.V.

Production and some properties of DNA of actinophages lysing
Actinomyces streptomycini Kras. Biokhimiia 30 no. 3:477-481
My-Je '65 (MIRA 1965)

1. Institut atomnoy energii Ileni Kurchatova. Moskva.

~~LOMOVITSKAYA, T. S.~~: Master Med Sci (diss) -- "The age morphology of the male sexual glands of man". Odessa, 1958. 14 pp (Odessa State Med Inst im N. I. Pirogov), 200 copies (KL, No 7, 1959, 129)

LOMOVSKAYA, E. G.

PA 0/49T08

USSR/Medicine - Roentgen Rays, Effects Jul 48
Medicine - Regeneration

"Regeneration of an Extremity of an Axolotl After
Exposure of Half of It to X-Rays," E. G. Lomovskaya,
Mil Vet Acad, 4 pp

"Dok Ak Nauk SSSR" Vol LXI, No 1

Reports experiments. Cut off half of the rear left
limb of the axolotl; then exposed both rear limbs
to X-rays. Describes regeneration, with drawings and
photograph. Submitted 4 May 1948.

8/49T88

LOMOVSKAYA, E. G.

USSR / General Biology. Physical and Chemical Biology. 3

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 35493

Authors : Lomovskaya, E. G.; Vorob'yeva, Ye. I.

Inst : Not given

Title : Some Mechanisms in the Development of Progeny from Females Irradiated by Gamma Rays during Pregnancy.

Orig Pub : Biofizika, 1957, 2, No. 4, 501-512

Abstract : White female mice were exposed to general gamma irradiation, dose 200 r (using the GUT-Co-400 apparatus) at different periods of pregnancy: preimplantation--from the 1st day to the 5th day (122 females), the period of primary organogenesis--from the 6th to the 12th day (99 females), and in the breeding period--from the 13th to the 19th day (69 females). Irradiation in the pre-

Card 1/4

USSR / General Biology. Physical and Chemical Biology. B

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 35493

implantation period produced high prenatal mortality. In 70% of the cases, a complete resorption of fetuses occurred and the average number of the litter of the 27 females which produced progeny was 4.5 against 6.7 in the control, which indicated partial resorption of the litter even in these cases. However, stillbirths were absent and 82% of the mice born survived up to the period of onset of sexual maturity (the 42nd day) without externally noticeable morphological deviations from the norm, while in weight they often even surpassed the control mice. The period of main organogenesis proved to be heterogeneous in character of the reaction of descendants to maternal irradiation. In cases of irradiation on the 6-8th day of pregnancy (38

Card 2/4

USSR / General Biology. Physical and Chemical Biology. 3

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 85493

females, the prenatal mortality was considerably lower than in the preimplantation period, and the average litter of 17 females producing offspring was larger, but stillbirths were frequently noted and only 56% of the mice born alive survived to the 42nd day with some loss in weight by comparison with the control. However, with irradiation on the 9-12th day of pregnancy (61 females), stillbirths occurred much more frequently and the postnatal mortality increased sharply (only 7% of the mice survived to the 42nd day). The reason for this increased sensitivity of offspring to maternal irradiation on the 9-12th day of pregnancy is discerned in the fact that during this time the fetus forms the vitally necessary organs. Irradiation at the breeding period

Card 3/4

3

USSR / General Biology. Physical and Chemical Biology. B

Abs Jour : Ref Zhur - Biol., No 19, 1953, No 65493

caused no prenatal mortality of fetuses and rarely caused stillbirths. The average numbers of the litter did not differ from the control, the postnatal survival markedly increased, and 60% of the mice born lived to the 42nd day, although their weight was lower as compared with the control, and with frequent symptoms of radiation diseases.-- E. B. Glikson.

Card 4/4

LOMOVSKAYA, E.G.

Morphological changes in testicles of mature white mice caused by γ -irradiation at different periods of embryogenesis. Nauch. dokl. vys. shkoly; biol. nauki no.3:106-110 '60. (MIRA 13:8)

1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

(GAMMA RAYS--PHYSIOLOGICAL EFFECT) (TESTICLE)
(EMBRYOLOGY)

LOMOVSKAYA, E.G.; VOROB'YEVA, Ye.I.

Radiosensitivity of bird embryos as compared with mammals irradiated at different periods of embryogenesis. Nauch.dokl.vys. shkoly; biol.nauki no.3:126-130 '59. (MIRA 12:10)

1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

(RADIATION--PHYSIOLOGICAL EFFECT) (EMBRYOLOGY--BIRDS)
(EMBRYOLOGY--MAMMALS)

LOMOVSKAYA, Mariya Tikhonovna; TRUTNEVA, Anastasiya Fedorovna; SHEVTSOV,
N., prof., red.; BAKUN, A., red.; ULANOVA, L., tekhn.red.

[Scouts of the future; the movement of the brigades and shock
troops of communist labor] Razvedchiki budushchego; dvizhenie
brigad i udarnikov kommunisticheskogo truda. Moskva, Izd-vo
sotsial'no-ekon.lit-ry, 1960. 133 p. (MIRA 13:5)
(Efficiency, Industrial) (Socialist competition)

YEROSHINA, L.I.; IL'INA, T.S.; KAMENOVA, S.I.; KANLOV, V.N.;
LOKOVSKAYA, N.D.; MILBLIN, S.M.; NIKIFOROV, V.N.; SOKOLOVA,
Ye.V.; SUKHODOLITS, I.V.; ZAKHAROV, I.A.; INGE-VECHTOMOV,
S.G.; KVITKO, R.V.; KUPISSKIY, A.M.; KARASEVICH, Yu.N.;
ENGEL'GARDT, V.A., akademik, glav. red.; ALIKHANYAN, A.I.,
prof., red.; IL'INA, T.S., red.

[Genetics and variation of micro-organisms] Genetika i se-
lekttsia mikro-organizmov. Moskva, Nauka, 1964. 304 p.
(MIA 17:9)

1. Institut atomnoy energii imeni I.V.Kurchatova (for
Ierokhina, Il'ina, Kameneva, Krylov, Lokovskaya, Mindlin,
Nikiforov, Sokolova, Sukhodolits). 2. Kafedra genetiki Le-
ningradskogo gosudarstvennogo universiteta (for Zakharov,
Inge-Vechtomov, Kvitko). 3. Institut radiatsionnoy i fiziko-
khimicheskoy biologii (for Krivitski). 4. Institut mikro-
biologii AN SSSR (for Karasevich).

ALIKHAYAN, S.I.; LOMOVSKAYA, N.D.

Genetic recombination in actinophages. *Izv. AN SSSR. Ser. Biol.* no.5:721-726 S-G '64. (MIRA 17:9)

1. Institut atomnoy energii im. I.V. Kurchatova AN SSSR, Moskva.

ALIKHANYAN, S.I.; LI'INA, T.S.; LOMOVSKAYA, N.G.

Evidence of genetic transduction in Actinomyces. Dokl.AN SSSR
132 no.5:1179-1182 Je '60. (MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
Predstavleno akademikom V.A. Engel'gardtom.
(ACTINOMYCES) (BACTERIOPHAGE) (HEREDITY)

LOMOVSKIY, A.

49/49137

USSR/Medicine-Hygiene and Sanitation Oct 48
Medicine-Water, Bacteriology

"Review of Professor S. N. Cherkinskiy's Book,
'Sanitation Regulations on Draining of Waste Waters
Into Reservoirs,'" A. Lomovskiy, 1 1/2 pp

"Sig. 1 San" No 10

Calls author one of most famous USSR specialists on
problems of water hygiene. Work contains method of
computation necessary for fulfillment of subject
regulations. Basic deficiency of book is that author
continues to worship US and English scientists and
does not appreciate Soviet scientists.

49/49137

LOMOVSKIY, A. M.

"Problem of Maintaining the Sanitary Protection of Water
Reservoirs," Gig. 1 San., No. 12, 1949.

LOHOVSKIY, A. M.

Sanitation

Sanitary conditions concerning discharge of sewage waters into water reservoirs; methods for preparing sanitation reports. Reviewed by A. M. Lomovskiy. Gig. i san., no. 3, 1952.

9. MONTHLY LIST OF RUSSIAN ACCESSIONS, Library of Congress, August 1952. Uncl.

Lomovskiy, A. M.

AID P - 1416

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 13/23

Author : Lomovskiy, A. M., Kand. of Med. Sci.

Title : Comments on the review by A. M. Aronovich of
I. Ya. Bychkov's book Legal Bases of the Activity
of the Medical Services

Periodical : Gig. i san., 1, 46-47, Ja 1955

Abstract : The review in question was published in the same
journal, 1954, No.12. The present article considers
the review correct on the whole, but not extensive
enough, and points out some errors of both author
and reviewer.

Institution : None

Submitted : 0 18, 1954

DIK, V.; LEVIN, Z.; LOMOVSKIY, A.

Drift mining with use of shields. Mast. ugl. 7 no. 6:10-11 Je '58.

1. Normativno-issledovatel'skaya stantsiya No. 14 Tul'skogo
sovnarkhona.

(Coal mines and mining--Equipment and supplies)

BARSKIY, Igor' Borisovich, kand.tekhn.nauk, dotsent; LOMOVSKIY, Viktor Aleksandrovich, kand.tekhn.nauk, dotsent; KURBATOV, A.P., inzh., retsenzent; MINDEL', Ye.M., kand.tekhn.nauk, retsenzent; MIRONOV, A.P., kand.tekhn.nauk, retsenzent; IVANOV, V.V., kand.tekhn.nauk, red.; FAL'KO, O.S., red.isd-va; TIKHANOV, A.Ya., tekhn.red.

[Tractors] Traktory. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit. lit-ry, 1960. 295 p. (MIRA 14:1)

1. Lyuberetskiy tekhnikum sel'skokhozyaystvennogo mashinostroyeniya (for Kurbatov).

(Tractors)

LO'OVNENY, V. A.

LO'OVNENY, V. A. -- "Investigation of the Feasibility of Direct Injection of Light Fuel into Two-Cycle Engines." *Gas Motory*, Moscow Automobile Mechanics Inst. (Dissertation for the Degree of Candidate in Technical Sciences).

30: Vechernaya Moskva, January 9, 1952

LOMOVSKIY, V.A.
LENIN, I.M., doktor tekhnicheskikh nauk; LOMOVSKIY, V.A., kandidat
tekhnicheskikh nauk.

Direct fuel injection in two-stroke engines. Avt. i trakt. prom.
no.7:23-27 J1 '56. (MLRA 9:10)

1. Moskovskiy aviamotornyy institut.
(Automobiles--Engines)

LOMOVSKIY, V.A., kandidat tekhnicheskikh nauk.

Direct injection of fuel in the engine of the 300 SZ Mercedes-Benz. Avt. i trakt. prom no. 10:46-47 0 '56. (MIRA 10:1)

(Germany, West--Mercedes automobile)

LOMOVSKIY, V.A., kandidat tekhnicheskikh nauk

Device for direct injection of light fuel. Avt.i trakt.
prom. no.3:29-32 Mr '57.

(MLRA 10:5)

1. Moskovskiy avtomotornyy institut.
(Automobiles--Fuel systems)

11(4)

PHASE I BOOK EXPLOITATION SOV/2311

Lomovskiy, Viktor Aleksandrovich, Candidate of Technical Sciences

Vпрыск топлива в транспортные двигатели с принудительным зажиганием (Fuel Injection in Automotive Engines With Spark Ignition) Moscow, Mashgiz, 1958.
72 p. Errata slip inserted. 2,500 copies printed.

Reviewer: M. M. Vikhert, Candidate of Technical Sciences; Ed.: V. P. Alekseyev, Candidate of Technical Sciences; Ed. of Publishing House: V. A. Nakhimov; Tech. Ed.: A. Ya. Tikhanov.

PURPOSE: This booklet may be used by technicians, mechanics, and students of higher technical schools who deal with internal combustion engines.

COVERAGE: A review is given of the basic problems of fuel injection in automotive engines with spark ignition. The advantages and disadvantages of fuel injection as opposed to the carburetion system are discussed and illustrated with numerous diagrams. Various types of injection pumps, mostly of European or American origin, are described. No personalities are mentioned. There are 20 references: 5 Soviet, 8 German, and 7 English.

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Advantages of Fuel Injection Over Carburetion		5
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GO/mg
10-1-59

LOMOVSKIY, V.
LOMOVSKIY, V., kand. tekhn. nauk.

Fuel injection in automobile engines. Avt. transp. 36 no.1:37-38
Ja '58. (MIRA 11:1)
(Automobiles--Fuel systems)

S/262/62/000/010/023/024

1007/1207

AUTHOR: Lomovskiy, V. A.

TITLE: Fuel injection in mobile diesel-engines with forced ignition (Book review)

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no. 10, 1962, 87, abstract 42.10.555. RETs Mashgiz, 1958 [Reviewers: Gitlin, N. N., Sobolev, L. M., "Avtomob. prom-st", no. 7, 1961, 46-47]

TEXT: The book is one of the first works dealing with problems of light-fuel injection. It gives a comparative study of different systems, and shows the advantages of a fuel injection system as compared with the carburetor systems. It further describes the methods of fuel feeding in spark-ignition engines and the influence of the time and pressure of fuel injection on engine performance. According to the author, the most suitable injection method is fuel injection into the inlet pipe.

[Abstracter's note: Complete translation.]



Card 1/1

LYZO, Georgiy Pavlovich; LYZO, Aleksandr Pavlovich; LOMOVSKIY, Viktor
Aleksandrovich; KOPTEVSKIY, D.Ya., red. izd-va; GOROKHOVA, S.S.,
tekhn. red.

[Tractors, motor vehicles, engines] Traktory, avtomobili, dvigateli.
Pod obshchei red. G.P.Lyzo. Moskva, Vysshaya shkola, 1962. 481 p.
(MIRA 16:2)

(Tractors) (Motor vehicles)

RUZLOVSKIY, A.A.; LOMOVSKIY, V.I.

Amalgam methods in nucleonics. Atom. energ. 10 no.3:299-300 Mr '61.
(MIRA 14:3)

(Nuclear fuels)
(Amalgams)

ROZLOVSKIY, A.A.; LOMOVSKIY, V.I.

Amalgam methods in nuclear engineering in foreign countries
[from "Journal of Metals," no.4, 1960; "Journal of Metals,"
no. 6, 1960; "W.W. Talanta," no. 3, 1960; "Angewandte Chemie,"
no. 9, 1960]. TSvet. met. 34 no. 4:94 Ap '61. (MIRA 14:4)
(Nuclear engineering)

LOMOV, Vladimir Stepanovich, kand. tekhn. nauk, dotsent

Method for the ~~optimum~~ approximation of the function of several variables using analog computers. Izv. vys. ucheb. zav.; elektromekh. 7 no.9:1130-1138 '64 (MIRA 18:1)

1. Kafedra elektrooborudovaniya letatel'nykh apparatov Leningradskogo instituta aviatsionnogo priborostroyeniya.

LOMOVTSEV, A. N.

"Functional Condition of the Cerebral Cortex of Patients with Hyperkinesia."
Cand Med Sci, Leningrad Sci-Res Neuro-surgical Inst, Leningrad, 1953.
(RzhBiol, No 4, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

LOHOVTSEVA, N. A.

LOHOVTSEVA, N. A.: "The microclimate in typical cowsheds in the northwest of the USSR". Leningrad, 1955. Leningrad Veterinary Inst, Min Higher Education USSR. (Dissertations for the Degree of Candidate of Veterinary Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

L O M O V T S E V A N. A.

USSR / Farm Animals. Small Horned Stock.

3-2

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105672.

Author : Lomovtseva, N. A.
Inst : Buryat-Mongol Scientific Research Veterinary
Station.
Title : On the Problem of the Carotene Content in the
Serum of Sheep Blood in the Buryat-Mongolskaya
Autonomous SSR.

Orig Pub: Tr. Buryat-Mong. n.-i. vet. st., 1957, VYP. 4,
57-58.

Abstract: It was established that under conditions of
the Buryat-Mongolskaya Autonomous SSR the blood
of sheep has a carotene content of 0.459-2.667
mg.%, whereas in Stavropol'skiy Kray it is 0.2-
0.3 mg.%.

Card 1/1

107-58-3-20/41

AUTHOR: Lomozova, N. Z.

TITLE: The Development of Television in the USSR (Razvitiye televi-
deniya v SSSR). Scientific-Technical Conference On Problems
of Television Development (Nauchno-tehnicheskaya konferent-
siya po voprosam razvitiya televideniya)

PERIODICAL: Radio, 1958, Nr 3, p 30 (USSR)

ABSTRACT: A scientific-technical conference on problems of television
development in the USSR was held in Kiyev in November 1957.
Professor Shmakov spoke in the plenary session at the opening
of the conference, discussing problems of such further deve-
lopment, in particular the problem of covering the vast areas
of the country with relay stations for color TV, and the pos-
sibility of using TV to obtain data from artificial earth
satellites. The conference devoted considerable time for re-
ports dealing with existing TV stations and the reconstruction
of the Moscow and Leningrad TV centers. The representative of
the USSR Ministry of Communications, Engineer I. Ostrovskiy,
acquainted the delegates with projects for the further deve-
lopment of the TV system, especially projects for second and
third class TV centers with 5/2.5 and 2/1 kw transmitters.
Engineer V. Renard spoke on technological problems of multi-
program TV stations. Engineer V. Kersh spoke on automatic,

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The Development of Television in the USSR. Scientific-Technical Conference
On Problems of Television Development.

unattended relay stations. The Moskovskaya televizionnaya filial-laboratoriya - MTFL (Moscow Television Branch Laboratory) has developed an experimental automatic unattended station "TRSA-56". Presently, MTFL is working on an automatic, unattended station to replace the "TRSO-20" relay stations. The reports of Engineers L. Litvak and A. Khachaturov dealt with questions of increasing the range of TV transmissions by airborne relay stations. Experiments showed that the range of such a TV station is 400 - 500 km when the aircraft is flying at an altitude of 8 - 10 km. Experiments conducted on the route Moscow - Odessa had positive results. The MTFL has developed special airborne and ground TV relay equipment. Doctor of Technical Sciences S. Tetel'baum spoke on TV methods for perfecting X-ray examination technique. Engineer I. Butlitskiy discussed "flying-spot" apparatus for televising motion pictures and the projected flying-spot apparatus for the experimental Moscow color TV station. Engineer Ya. Efrussi spoke on ways and means for modernizing the existing Soviet TV sets. Engineer A. Kanayeva reported

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on the experience accumulated with the operation of the existing types of TV sets, their advantages and deficiencies. Engineers L. Zass and A. Konstantinovskiy spoke on measuring instruments for radio mechanics. Engineer I. Grachev reported on the results of observations of long and super-long distance TV reception.

1. Television--Development--USSR

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LOMOZOVA, Nadezhda Zinov'yevna; KURBAKOVA, Galina Mikhaylovna;
TRAVIN, A.A., otv. red.; KONDRAT'YEVA, V.P., red.

[Black and white television receivers in the U.S.A. and
the German Federal Republic; survey of network and design
calculations] Televizionnye priemniki cherno-belogo izo-
brazheniia SShA i FRG; obzor skhemnykh i konstruktivnykh
resheni. Moskva, Izd-vo "Sviaz'," 1964. 47 p. (Biblio-
teka televizionnykh priem, no.14) (MIRA 17:8)

L 36905-66 RO

ACC NR: AP6027104

(N)

SOURCE CODE: PO/0099/66/040/001/0073/0081

AUTHOR: Baranowski, Przemyslaw; Wiewiorowski, Maciej; Lompa-Krzyzniec, Ludmila

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ORG: Department of Materials Science, School of Economics, Poznan (Katedra Towaroz-
nawstwa Wyzszej Szkoły Ekonomicznej); Department of Organic Chemistry, University in.
A. Mickiewicz, Poznan (Katedra Chemii Organicznej Uniwersytetu)TITLE: Amine oxides of lupin alkaloids. V. Reaction of lupanine amino oxide with
acetic anhydride. A new method of isomerization of lupanine to alpha-isolupanineSOURCE: Roczniki chemii - annales societatis chimicae polonorum, v. 40, no. 1,
1966, 73-81TOPIC TAGS: amine, alkaloid, isomerization, chemical reaction, chemical composition,
chemistry techniqueABSTRACT: Acetic anhydride has been found to transform the amino oxide of lupanine
to Δ^1 -dehydrolupanine. To study the effect of the reaction conditions on the compo-
sition of the post-reaction mixture, a new highly accurate method has been worked out
for determination of lupanine and α -isolupanine. A new method of isomerization of
lupanine to α -isolupanine is described. Orig. art. has: 5 figures and 1 table.
[Based on authors' Eng. abst.] [JPRS: 35,397]

SUB CODE: 07 / SUBM DATE: 13Aug65 / ORIG REF: 005 / OTH REF: 007

LS

Card 1/1

LOMPAR, Marija, ganitetski potpukovnik dr

Our experience with the interpretation of Widal's agglutination reaction. Vojnosanit. pregl. 19 no.2:118-122 F '62.

1. Vojnomedicinska akademika u Beogradu.
(TYPHOID) (HEMAGGLUTINATION)

1. LOMPO-TROFIMOV, G. F.
2. USSR (600)
4. Fisheries - Accounting
7. Calculating production expenditures and determining cost of prepared fish products. Ryb. khoz. 28, no. 9, 1952.

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

HUNGARY/ EAST GERMANY

LOMPSCHER, J. German Central Institute for Pedagogy [original-language version not given; location not given].

"Peculiarities and Conditions of the Intellectual Development in Children"

Budapest, Magyar Pszichologiai Szemle, Vol 23, No 1-2, 1966, pp 14-29.

Abstract: This article is the text of the author's lecture delivered at the 6 Apr 1965 meeting of the Institute for Psychology at the Hungarian Academy of Sciences (Magyar Tudományos Akadémia Pszichologiai Intezete). The pupils must be made to acquire knowledge in a clear-cut, conscious, and analytical-synthetic manner. The intellectual process must be developed gradually, based on models correlated with actual activities. It is essential to impart to the pupils the methods whereby intellectual processes function. The requirements must be set high and increased gradually. The pupils must consciously accept the challenges involved. The teaching must be highly individualistic. These principles are recommended on the basis of the author's experiences in East German pedagogical institutions. 10 references, including 2 Hungarian and 8 German.

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LOMPSCHER, J.

On the standpoint of "Zeitschrift fur Psychologie" on the theory of psychology and research methodology. Magyar pszichol szemle 19 no.3:363-371 '62.

LOMPHER, Ioakhim [Lompscher, Joachim]

New psychological journal in the German Democratic Republic. Vop.
psikhol. 8 no.5:170-175 9-0 '62. (MIRA 16:5)

1. Germanskiy Tsentral'nyy institut pedagogiki, Berlin.
(Germany, East--Psychology--Periodicals)

KUDRYASHOV, Yu.B.; MAL'TS, V.; GONCHARENKO, Ye.N.; KAKUSHKINA, M.L.;
LOMSADZE, B.A.; SIN VEN'-DYUAN'; SYUE YUY-KHUA [Hsüeh Yü-hua];
CHZHAN CHZHEN'-LYAN'

Toxic effect of oleic acid and its oxidation products; cytotoxic
factor in radiation injury of animals. Radiobiologia 1 no.1:78-
85 '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet, kafedra biofiziki.
(RADIATION--PHYSIOLOGICAL EFFECT)
(OLEIC ACID--TOXICOLOGY)

LOMSADZE, B.A.; KOZLOV, Yu.P.

Autolysis inhibition by a monomer. Nauch. dokl. vys. shkoly;
biol. nauki no.4:74-76 '64. (MIRA 17:12)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo
universiteta im. M.V. Lomonosova.

LONSHADZE, S.P.

(4)
Radiomimetic Effect of the Oxidation Products of Unsaturated Fatty
Acids in Various Biological Systems and Objects

Yu. B. Kudryashov, G. I. Gazarov, E. N. Gorbatenko,
N. P. Korolev, N. G. Labkina, S. P. Lonshadze,
Lyu Khao-in, Syue Yuh-khua and Or F. Filenko

Oxidation products of oleic acid acted *in vitro* on enzyme systems responsible for the decomposition of proteins in tissues. They inhibited the autolysis reaction. Unoxidised or weakly oxidised fatty acid increased autolysis. Ionizing radiation influences autolysis, depending on the method of irradiation, dose, and time after irradiation. It was shown that the disturbance of the autolytic decomposition of proteins in irradiated animals occurs as an indirect mechanism apparently due to toxic substances of the type of oxidised oleic acid. Derivatives of unsaturated fatty acids have some haemolytic properties. Radio-protective compounds, i.e. 3-mercaptopethanol, amino-

ethylsulfuramine, cysteine and others also reduce the haemolytic properties of the oxidation products of oleic acid. The effect of oxidation products of oleic acid on haploid and diploid yeast cells is similar to that of X-rays as judged by cell survival, formation of micro- and macro-colonies, and their form. Anoxia reduces the sensitivity of haploid cells to oxidized oleic acid. The oxygen effect is smaller than that for ionizing radiation. This suggests that the primary mechanism of radiation injury involves at least two consecutive oxidation reactions. Similar results were found in mice, rats and rabbits. The following parameters were investigated: survival, blood picture, physico-chemical properties of erythrocytes, time of coagulation and the thromboplastic activity of blood, activity of liver cathepsins, permeability of histo-haematic barriers (liver, brain, skeletal muscles), appearance of micro-necroses in bone marrow. The results suggest that oxidation products of unsaturated fatty acids, the peroxides, aldehydes and ketones (perhaps also radicals of these products) are radiomimetic. Since the substances examined may appear in organs and tissues of irradiated animals, they are particularly interesting in comparison with known radiomimetics.

Moscow State University, USSR

report presented at the 2nd Intl. Congress of Radiation Research,
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

KUDRYASHOV, Yu.B.; LOMSDZE, B.A.

Autolysis of liver proteins in rats after intraperitoneal introduction of oxidized oleic acid. Radiomimetic characteristics of oxidized oleic acid. Vest. Mosk. un. Ser. 6: Biol., pochv. 17 no.5:24-26 S-0 '62. (MIRA 15:11)

1. Kafedra biofiziki Moskovskogo universiteta.
(Oleic acid)
(Radiomimetic substances)

L 22362-66 EWT(m)

ACC NR: AP6005097 (A) SOURCE CODE: UR/0325/65/000/004/0097/0098

AUTHOR: Lomsadze, B. A.; Grigoryan, G. L.

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B

ORG: none

TITLE: Autolytic decomposition of rat liver mitochondrial protein on radiation injury of animals

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiye nauki, no. 4, 1965, 97-98

TOPIC TAGS: experiment animal, radiation biologic effect, biosynthesis, enzyme, radiation injury, cell physiology, *rat, protein*

ABSTRACT: The postradiation autolysis of the mitochondrial fraction of livers of irradiated rats was investigated. The amino nitrogen content in the mitochondria increased significantly after irradiation, indicating intensification in autolytic decomposition of the tissue albumin in vivo. Maximum autolysis in rats irradiated with 600 r appears on the 4th day after exposure, and with 800 r, in 2 days. The intensity of the autolytic processes was reduced to the level of the control or lower in 7-15 and 5-15 days, respectively. Apparently

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ACC NR: AP6005097

autolytic processes develop initially in all subcellular granules containing proteolytic enzymes and then encompass cells and entire organisms of the irradiated animal. Orig. art. has: 1 figure.

SUB CODE: 06/ SUBM DATE: 10Mar64/ ORIG REF: 006/ OTH REF: 002

Card 2/2dd

OKLEY, L.N.; LOMSADZE, D.M.

Studying strains and deformation in the side upsetting of a
cylinder. Scob. AN Gruz. SSR 22 no.3:337-341 Mr '59.
(MIRA 12:8)

I.AN GruzSSR, Institut metallurgii, Tbilisi. Predstavleno chlenom-
korrespondentom AN F.N. Tavadze.
(Strains and stresses) (Forging)