

L 09268-67  
ACC NR: AP6029876

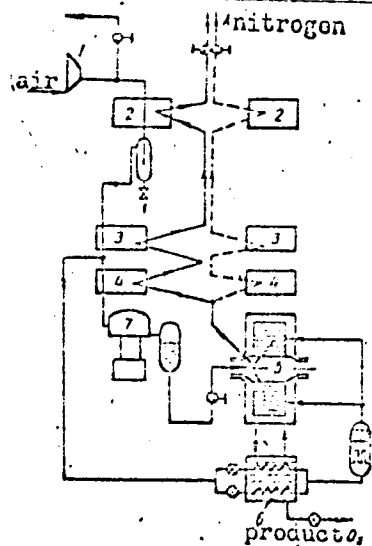


Fig. 1. 1 - compressor;  
2 - heat exchanger-liquefier;  
3 - preliminary heat  
exchanger; 4 - main heat  
exchanger; 5 - rectifier;  
6 - evaporator; 7 - external  
cooler

processed. Orig. art. has: 1 figure.

SUB CODE: 07/13/ SUBM DATE: 20Nov61./

L 16094-65 LPT(m)/ENP(E)/ENP(c) JJP(c), L(dp)/ESD(t)/AFWL/ASD(a)-5/ASD(m)-3  
ACCESSION NR: AP4049615 S/0076/64/038/011/2703/2706

AUTHOR: Kochegarov, V. M.; Lomakina, I. P.

TITLE: Cathodic deposition of gallium from alkaline solutions B

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 11, 1964, 2703-2706 27

TOPIC TAGS: gallium thin film, <sup>18</sup>gallium deposition, electrochemical gallium deposition, alkaline solution electrolysis, chemical polarization

ABSTRACT: Electrochemical deposition of gallium on a copper cathode from pure solutions in potassium hydroxide has been studied for the purpose of preparing gallium thin films, which are increasingly important for semiconductor devices. Cathodic polarization curves were obtained by the compensation method at various gallium concentrations in the electrolyte and at three different temperatures (20-50C). The current efficiency of gallium deposition was also measured. ~~Cathodic current-density potential, semilogarithmic plots were calculated for gallium and hydrogen. Constant b in the Tafel equation was deduced from the slope of these plots for gallium and hydrogen simul-~~

Card 1/2

L 16084-65  
ACCESSION NR: AP4049615

taneous cathodic deposition. It was shown that gallium deposition is accompanied by significant chemical polarization which is explained in terms of the coexistence of the molecular and metallic structure of the gallium crystal lattice. The current efficiency of gallium deposition sharply increased with increased gallium concentration in the electrolyte but only slightly with increased current density. The current efficiency was nearly 100% in solutions with high gallium concentration. The temperature effect is not great. Orig. art. has 3 figures and 2 tables.

ASSOCIATION: Taganrogskiy radiotekhnicheskii institut (Taganrog Radio Engineering Institute) ✓

SUBMITTED: 22Nov63

ENCL: 00

SUB CODE: MM, GC

NO REF SOV: 007

OTHER: 009

ATD PRESS: 3146

Card 2/2

LOMAKINA, T.S.; GUS'KOVA, L.I.; GRINEVA, N.I.

Identification, separation, and quantitative analysis of nucleoside  
and nucleotide derivatives by thin-layer chromatography on cellulose.  
Khim. prirod. soed. no.5:335-342 '65. (MIRA 18:12)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo  
otdeleniya AN SSSR. Submitted March 8, 1965.

LOMAKINA, T.S.; GRINEVA, N.I.

Preparative method of obtaining guanosine-5'-triphosphate.  
Khim.prirod.soed. no.4:275-283 '65.

(MIRA 19:1)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo  
otdeleniya AN SSSR. Submitted March 8, 1965.

LOMAKINA, V.A.

Lomakina, V.A. "A new vegetable therapeutic agent for chronic cholecystitis", Trudy Kazansk. gos. med. in-ta, 1949, Issue 1, p. 75-85, -Bibliog: 23 items.

SO: U-411, 17 July 53, (Letopis' Zhurnal 'rykh Statey, No. 20, 1949)

LOMAKINA, V.A.

Effect of alcoholic tincture of Berberis leaves on the gallbladder  
[with summary in English]. Farm. i toks. 21 no.5:81-84 8-0 '58

(MIRA 11:11)

1. Kafedra propedevtiki vnutrennikh bolezney (zav. - prof. A.I.  
Brening) Kazanskogo meditsinskogo instituta.

(PLANTS,

Berberis, eff. on gallbladder in dogs (Rus))

(GALLBLADDER, effect of drugs on  
Berberis tincture (Rus))

LOMAKINA, V.A., kand.med.nauk

Treatment of chronic cholecystitis with a tincture of *Berberis vulgaris* leaves. Sov.med. 25 no.2:139-144 F '61. (MIRA 14:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof..A.I. Brening [deceased]) Kazanskogo meditsinskogo instituta (direktor - dotsent R.A.Vyaselev).

(BARBERRIES)

(GALL BLADDER—DISEASES)



LOMAKINA, V.A. —

Diagnostic value of Weltmann's coagulation test in acute coronary pathology. Kaz.med.zhur. no.4:55-56 J1-Ag '62. (MIRA 15:8)

1. Kafedra propedevtiki vnutrennikh bolezney (zav. - prof. A.I. Brening [deceased]) Kazanskogo meditsinskogo instituta.  
(CORONARY HEART DISEASE) (BLOOD--COAGULATION)

LOMAKINA, V.I.

**USSR**

... (faded text) ...

... (faded text) ... containing 20 g. (0.04 mole) ... after 1.5 hrs. at 50° the react. was dilg. with H<sub>2</sub>O, and the ... PSCl<sub>2</sub> (4.0 g., 0.1 mole), and 1.0 g. Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub>. This (2.0 g.) of p-Cl-C<sub>6</sub>H<sub>4</sub>OH, and 1.0 g. Na<sub>2</sub>CO<sub>3</sub> in 7 ml. Me<sub>2</sub>CO were reduced with stirring at room temp. after filtration, the ...

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930430006-6

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930430006-6"

MANDEL'BAUM, Ya.A.; MEL'NIKOV, N.N.; LOMAKINA, V.I.

Organic insectofungicides. Part 25. Synthesis of mixed esters  
of thiophosphoric acid. Zhur.ob.khim. 26 no.9:2581-2583 8 '56.  
(MLBA 9:11)

(Thiophosphates)

MEL'NIKOV, N.N.; MANDEL'BAUM, Ya.A.; SHVETSOVA, K.D.; BAKANOVA, Z.M.  
LOMAKINA, V.I.; ZAKS, P.G.; MIL'SHTEYN, I.M.; POPOV, P.V.;  
POKROVSKIY, Ye.A.; BOCHAROVA, L.P.; SEDYKH, A.S.; UKRAINETZ, N.S.

Improved technology for producing thiophos, metaphos, chlorophos  
and other phosphorus organic insecticides and investigation of  
new insecticides and fungicides derived from the esters of  
phosphoric acids. [Trudy] NIUIF no.164:11-14 '59. (MIRA 15:5)  
(Insecticides) (Fungicides)

MANDEL'BAUM, Ya.A.; LOMAKINA, V.I.

Investigation and development of new preparations repelling  
bloodsucking insects. [Trudy] NIUIF no.164: '59.  
(MIRA 15:5)  
(Insect baits and repellents)

MAISEL'BAUM, Ya.A., kand.khimicheskikh nauk; SAF'YANOVA, V.M., kand.  
meditsinskikh nauk; LOPAKINA, V.I.

Chemical insect repellents. Zhur. VIKHO 5 no. 3:307-312 '66.  
(MIRA 14:2)  
(Insect baits and repellents)

MEL'NIKOV, N.N.; MANDEL'BAUM, Ya.A.; LOMAKINA, V.I.

Repellents based on indalone and dimethyl karbate. [Trudy]  
NIUIF no.171:143-150 '61. (MIRA 15:7)  
(Insect baits and repellents)



MEL'NIKOV, N.N.; MANDEL'BAUM, Ya.A.; LOMAKINA, V.I.

Organic insectofungicides. Part 58: Synthesis of certain derivatives of dialkoxyposphonopropionic, butyric, and toluic acids.  
Zhur. ob. khim. 31 no.3:849-852 Mr '61. (MIRA 14:3)

1. Nauchnyy institut po udobreniyam i insektofungisidam imeni  
Ya. V. Samoylova.  
(Propionic acid) (Butyric acid)(Toluic acid)

MANDEL'BAUM, Ya.A.; LOMAKINA, V.I.; MEL'NIKOV, N.N.

Amides of acids as repellents. [Trudy] NIUIF no.171:151-158  
'61. (MIRA 15:7)  
(Insect baits and repellents) (Amides)

MEL'NIKOV, N.N.; MANDEL'BAUM, Ya.A.; LOMAKINA, V.I.; LIVSHITS, V.S.

Organic insecticide-fungicides. Zhur.ob.khim. 31 no.12:3949-  
3953 D '61. (MIRA 15:2)

1. Nauchnyy institut po udobreniyam i insektofungitsidam  
im. Ya.V. Samoylova (NIUIF), Moskva.  
(Insecticides)  
(Acetic acid)  
(Phosphorus organic compounds)

КОМАР/АА. VI.

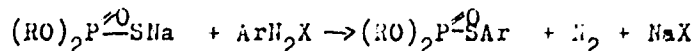
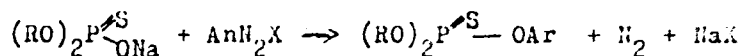
AUTHORS: Mel'nikov, N. N., Mandel'baum, Ya. A.,  
Lomakina, V. I.,

79-2-1/3.

TITLE: Organic Insecticides and Fungicides  
(Iz oblasti organicheskikh insektofungitsidov) XXXI. A New Method for the Pro-  
duction of Mixed Esters of Thiophosphoric Acid ( XXXI. Novyye  
sposob polucheniya smeshannykh efirov tiosfosfornoy kisloty)

PERIODICAL: Zhurnal Obshchey Khimii, 1950, Vol. 28, Nr 2, pp. 476-478  
(USSR)

ABSTRACT: The reaction between aromatic diazocompounds with salts of the  
dialkylthiophosphoric acid was investigated and mixed ethers of  
thiophosphoric acid were obtained in acid-aqueous solution with  
a yield of up to 50%. Here schematically seen an isomer mixture  
of the tautomers is formed:



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In the present paper the equilibrium of the tautomers of the  
dialkylthiophosphates is moved to the side of the thiolform, in

Organic Insecticides and Fungicides 79-2-1/64  
A New Method for the Production of Mixed Esters of Thiophosphoric Acid

accordance with L.I. Kabachnik, S.T. Ioffe and T.A. Mastryukova (reference 4), since O,O-dialkyl-S-aryl-thio phosphates and in only one case thionisomers predominate in the reaction product. The results obtained show that the quantity ratio of the isomers is more influenced by the attacking reagent than by the reaction medium. The working methods as well as tables of the properties of esters are given. There are 1 table, and 4 Slavic references.

ASSOCIATION: Scientific Institute for Fertilizers, Insecticides and Fungicides  
(Nauchnyy institut po udobreniyam i insektofungitsidam)

SUBMITTED: January 16, 1957

AVAILABLE: Library of Congress

Card 2/2

LOMAKINA, V.I.; VORONKOVA, V.V.; MANDEL'BAUM, Ya.A.; MEL'NIKOV, N.N.

Organic insectofungicides. Part 84: Interaction of trialkyl phosphites with triol monochloroacetates. Zhur. ob. khim. 35 no.10:1752-1759 0 '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy.

L 1433-66 ENT(1)/E:A(j)/E:A(b)-2 RO

ACCESSION NR: AP5024420

UR/0286/65/000/015/0121/0121  
632.954

AUTHOR: Mel'nikov, N. N. <sup>44,55</sup>; Mandel'baum, Ya. A. <sup>44,55</sup>; Lomakina, V. I. <sup>44,55</sup>; Stonov, L. D. <sup>44,55</sup>  
Yakimova, H. F. <sup>44,55</sup>; Sergeeva, T. A. <sup>44,55</sup>

TITLE: A method of plant-growth regulation. Class 45, No. 173535

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 121

TOPIC TAGS: defoliant, phosphonacetamide

ABSTRACT: Dialkoxyphosphonacetamides can be used as defoliants to control plant growth, in conjunction with herbicides. [VS]

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy (All-Union Scientific Research Institute of Chemicals for Protection of Plants)

SUBMITTED: 14Mar64

ENCL: 00

SUB CODE: LSOC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4900

Card 1/1 DP

L 25606-66 EWT(1) RO

ACC NR: AP6016702

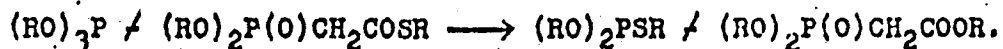
SOURCE CODE: UR/0079/65/035/012/2209/2216

AUTHOR: Voronkova, V. V.; Lomakina, V. I.; Mandel'baum, Ya. A.; Mel'nikov, N. N. <sup>49</sup><sub>E</sub>ORG: All-Union Scientific Research Institute of Chemical Means of Plant Protection  
(Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy)TITLE: From the field of organic insectofungicides, <sup>10</sup>no. 88. Interaction of trialkylphosphites with thiolomonochloroacetates

SOURCE: Zhurnal obshchey khimii, v. 35, no. 12, 1965, 2209-2216

TOPIC TAGS: insecticide, fungicide, IR spectrum, organic phosphorus compound, chlorinated organic compound, organic sulfur compound

ABSTRACT: Upon studying the interaction of trialkylphosphites with thiolomonochloroacetates, it was found that the chief products of this reaction are dialkoxyphosphonothioacetates, dialkyl-1-(Alkylthio)vinyl-phosphates and dialkoxyphosphonacetates. The latter compounds are the result of secondary processes occurring in the reaction. The supposition had been made that the formation of these compounds can occur in the interaction of trialkylphosphites with dialkoxyphosphonothioacetates:



Card 1/2

UDC: 547.592 2



L 25606-66

ACC NR: AP6016702

To confirm this assumption experimentally the interaction of triethylphosphite with diethoxyphosphonethylthioacetate was studied where diethoxyphosphonethylacetate, which was characterized by physical constants, analysis and IR-spectrum, was isolated from this reaction. The second component of the reaction could not be separated in a pure form because its  $R_f$  value was close to that of the corresponding oxygen analog. The  $R_f$  values for a great number of organic phosphorus compounds were determined. [JPRS]

SUB CODE: 07, 06 / SUBM DATE: 02Oct64 / ORIG REF: 003 / OTH REF: 004

Card 2/2 *FV*

L 31800-66 EWT(1) RO

ACC NR: AP6021671

SOURCE CODE: UR/0079/66/036/003/0447/0449

AUTHOR: Lomalkina, V. I.; Mandel'baum, Ya. A.; Mel'nikov, N. N.

50  
B

ORG: All-Union Scientific Research Institute of Chemical Agents for Plant Protection, Moscow (Vsesoyuznyy nauchno-isslodovatel'skiy institut khimicheskikh sredstv zashchity rasteniy)

TITLE: Organic insectofungicides. LXXXIX. Interaction of triethyl phosphite with amides of monochloroacetic acid

SOURCE: Zhurnal obshchey khimii, v. 36, no. 3, 1966, 447-449

TOPIC TAGS: insecticide, fungicide, organic phosphorus compound, organic amide, defoliant agent, chemical synthesis, systemic toxin

ABSTRACT: A number of amides of diethoxyphosphoneacetic acid, which had not been described in the literature, were synthesized by the reaction of triethyl phosphite with monochloroacetic acid amides in a search of new pesticides. Some of the compounds synthesized were found to possess physiological activity for plants and to be systemic acaricides. Some cause defoliation of cotton plants at the same standards of consumption as magnesium chloride. The n-butylamide of diethoxyphosphoneacetic acid in a 0.5% concentration causes 100% lethality for herbivorous mites. The authors thank P. V. Popov and L. D. Stonov for directing the biological experiments of the synthesized compounds. Orig. art. has: 1 figure and 1 table. /JPRS/

SUB CODE: 07, 06 / SUBM DATE: 01Jan65 / ORIG REF: 004 / OTH REF: 001  
Card 1/1 UDC: 661.718:632.95

VORONKOVA, V.V.; LOMAKINA, V.I.; MANDSEL'BAUM, Ya.A.; MEL'NIKOVA, N.N.

Organic insectofungicides. Part 82: Reaction of trialkyl phosphites with thiol monochloroacetates. Zhur.ob.khim. 35 no.12:2209-2216 D '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy. Submitted October 2, 1964.

LOMAKINA, V.N.; PODKHOLZINA, V.V.

Sanitary and bacteriological aspects of selling carbonated water from  
the carbonator in the street. Gig. i san. 23 no.12:78 D '58. (MIRA 12:1)  
(CARBONATED BEVERAGES--HYGIENIC ASPECTS)

84978  
S/056/60/038/005/056/057/XX  
B006/B070

24.6100  
AUTHORS:

Kopylov, G. I., Lomakina, Z. D.

TITLE: The Problem of a Direct Reduction of the Elastic Scattering Amplitude

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 5, pp. 1649 - 1651

TEXT: The problem of the reduction of the scattering matrix<sup>19</sup> has been studied by L. D. Puzikov, R. M. Ryndin, and Ya. A. Smorodinskiy (Ref. 1), and it was suggested that, instead of making a phase shift analysis, the system of equations be directly solved by using the unitarity conditions. In the present "Letter to the Editor", an attempt is made to find a solution of this system of equations for the simplest case of scattering of spin-zero particles from a center of force. The following system of equations ( $\sigma$  - scattering cross section) has to be solved for the real and imaginary parts  $R(\mu)$  and  $I(\mu)$  - ( $\mu = \cos \theta$ ) - of the scattering amplitude:

$$R^2(\mu) + I^2(\mu) = \sigma(\mu); I(\mu) = \frac{k}{4\pi} \int_{-1}^1 \int_0^{2\pi} [I(\mu'')I(\mu') + R(\mu')R(\mu'')] d\mu' d\varphi, \text{ with}$$

Card 1/3

The Problem of a Direct Reduction of the Elastic Scattering Amplitude

84978  
S/056/60/038/005/056/051/XX  
B006/B070

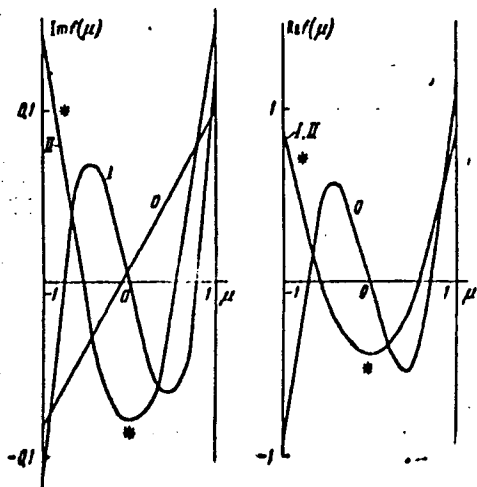
$\mu'' = \mu\mu' + \sqrt{(1-\mu^2)(1-\mu'^2)} \cos \varphi$ . An approximate solution of this system of equations is obtained by means of an electronic computer using Newton's method of iteration. It is found that application of the theory of generalized functions leads already to a convergence if the number of zeros of the solution is not the same as the number of zeros in zero approximation; see Fig. R. M. Ryndin and L. A. Chudov are thanked for suggesting the problem. There are 1 figure and 3 Soviet references. X

ASSOCIATION: Ob'yedinenny institut yadernykh issledovaniy (Joint Institute of Nuclear Research); Vychislitel'nyy tsentr MGU (Computation Center of Moscow State University) Z. D. Lomakina

SUBMITTED: March 18, 1960

Card 2/3

S/056/60/038/005/056/057/XX  
B006/B070



Convergence of the iteration process. 0, I, II - zero, first, and second approximation, \* - exact solution

Card 3/3

TIKHONOV, A.N.; LIPSKAYA, N.V.; DENISKIN, N.A.; NIKIFOROVA, N.N.; LOMAKINA,  
Z.D.

Electromagnetic sounding of deep layers of the earth. Dokl. AN  
SSSR 140 no.3:587-590 S '61. (MIRA 14:9)

1. Institut fiziki Zemli im. O. Yu. Shmidta AN SSSR; 2. Chlen-  
korespondent AN SSSR (for Tikhonov).  
(Magnetism, Terrestrial)



TIKHONOV, A.N.; LOMAKINA, Z.D.; SHAKHSUVAROV, D.N.;

[Tables of impedances for stratified space in the field of  
a plane electromagnetic wave] Tablitsy impedansov dlia sloi-  
stogo prostranstva v pole ploskoi elektromagnitnoi volny.  
Moskva, Izd-vo Mosk. univ., 1962. 48 p. (MIRA 16:3)

(Electromagnetic waves)  
(Geophysic--Tables, calculations, etc.)

LOMAEINA, Z.V.; KIR'YANOVA, Ye.S.; VLASOVA, M.Ya.

~~Appendix 4~~ Appendix 4: Recommendations for combating the chrysanthemum  
eelworm (*Aphelenchoides ritzma-bosi* (Schwartz, 1911)). Trudy  
probl. i tem.soveshch. no.3:257-259 '54. (MLRA 8:5)

1. Moskovskaya stantsiya sashchity zelenykh nasashdeniy,  
Zoologicheskii institut Akademii nauk SSSR i Leningradskiy  
tsvetochno-pitomnicheskii trest.  
(Chrysanthemums--Diseases and pests) (Nematoda)

KRAYNOVA, K.M.; LOMAKO, A.V.

Colorimetric method of determining the TiO content. Khim.volok.  
no.4:69-71 '60. (MIRA 13:10)

1. Serpukhovskiy zavod.  
(Rayon spinning)

(Titanium oxide)

KRAYNOVA, K.M.; LOMAKO, A.V.

New method of cleaning steel spinnerets. Khim.volok. no.3:68  
'61. (MIRA 14:6)

1. Serpukhovskiy zavod.  
(Serpukhovo--Spinning machinery)

LOMAKO, A.Z.

[Cultivation practices for millet in northern growing areas]  
Agrotekhnika prosa v severnykh raionakh ego vozdelevaniia. Moskva,  
"Sel'khozgiz", 1945. 61 p. (MIRA 11:10)  
(Millet)

BRJEN'KIY, Yu.B., kand. tekhn. nauk; IMASHEVA, N.F.; IOMAKO, D.M.

Approximate calculation of natural vibrations of nonlinear suspensions  
of motor vehicles. Avt. prom. 30 no.10:28-30 0 '64. (MIRA 17:11)

1. Belorusskiy politekhnicheskiy inatitut i Minskiy avtozavod.

L 1649-66  
(A)

ACCESSION NR: AP5021630

UR/0286/65/000/013/0111/0111

AUTHORS: Belen'kiy, Yu. B.<sup>44</sup>; Imasheva, N. P.<sup>44</sup>; Lomako, D. M.<sup>44</sup>

TITLE: Position regulator for the body of a vehicle. Class 63, No. 172641 13  
B

SOURCE: Byulleten' izobretoniy i tovarnykh znakov, no. 13, 1965, 111

TOPIC TAGS: hydraulic system, shock absorber <sup>44</sup>

ABSTRACT: This Author Certificate presents a position regulator for the body of a vehicle, e.g., an automobile, for maintaining a constant height of the body above the road by regulating the motion of the elastic unit of a pneumohydraulic suspension. The regulator includes a piston pump which is actuated by the oscillations of the automobile suspension, a pressure accumulator, a liquid reservoir, and a valve connecting the pump with the pressure accumulator. To admit and discharge liquid from the regulator cavity into the elastic unit cavity through a common channel, the regulator is provided with a valve placed in the channel and controlled by the shaft of a differential slide valve which is moved by the liquid pressure (see Fig. 1 on the Enclosure). The operating slide valve channel cavities adjoining the slide valve end surfaces are connected to the corresponding pump cavities. The slide valve is made with an internal channel connecting the

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L 1649-66

ACCESSION NR: AP5021630

operating slide valve channel cavity adjoining the valve with the reservoir when the slide valve position corresponds to the open valve. Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 03May63

NO REF SOV: 000

ENCL: 01

OTHER: 000

SUB CODE: IE

Card 2/3



L 1649-66

ACCESSION NR: AP5021630

ENCLOSURE: 01

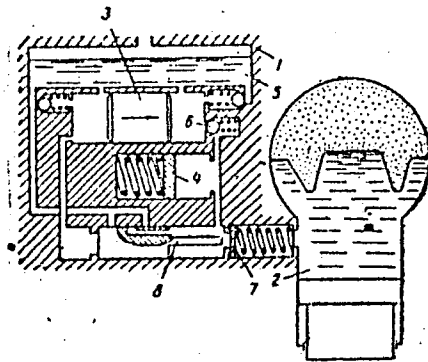


Fig. 1.

1- body position regulator housing; 2- elastic unit of pneumatic suspension; 3- piston pump; 4- pressure accumulator; 5- liquid reservoir; 6- valve connecting pump and pressure accumulator; 7- valve connecting regulator and elastic unit; 8- differential slide valve

Card 3/3 DP

ACC NR: AP7006716

(A)

SOURCE CODE: UR/0113/66/000/012/0016/0018

AUTHOR: Belen'kiy, Yu. B. (Candidate of technical sciences); Imasheva, N. P.;  
Furunzhiyev, R. I.; Lomako, D. M.; Lozhechnik, F. D.

ORG: Belorussian Polytechnical Institute (Belorusskiy politekhnicheskiy institut);  
Minsk Automobile Plant (Minskiy avtozavod); IM AN BSSR

TITLE: Effect of the damping properties of a tire on the vibration parameters of an  
automotive vehicle

SOURCE: Avtomobil'naya promyshlennost', no. 12, 1966, 16-18

TOPIC TAGS: machine vibration, vibration damping, tire, vehicle engineering

ABSTRACT: A method is proposed for calculating the effect which the improved damping  
properties of modern low-pressure multi-ply tires have on the vibration parameters of  
a motor vehicle. The mathematical analysis is based on the dynamic models shown in  
Figures 1 and 2. Figure 1 represents an oscillatory two-mass system while Figure 2  
is the dynamic model of a two-axle vehicle. The "Elektron" analog computer and the  
"Minsk-2" digital computer were used for solving the following system of differential  
equations describing the oscillatory motion of an  $n$ -axle vehicle:

Card 1/3

UDC: 629.113:629.11.012.5.001.5

ACC NR: AP7006716

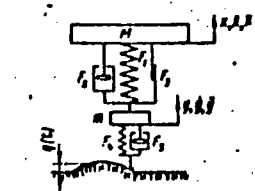


Fig. 1

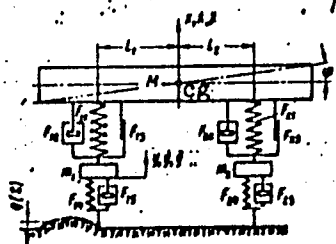


Fig. 2

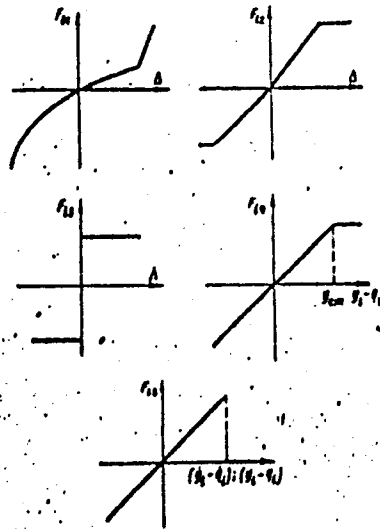


Fig. 3

Card 2/3

ACC NR: AP7006716

$$\ddot{x} + \sum_{i=1}^n \mu_i (F_{i1} + F_{i2} + F_{i3}) = 0;$$

$$\ddot{y} + \sum_{i=1}^n \lambda_i (F_{i4} + F_{i5} + F_{i6}) = 0;$$

$$\ddot{y}_i - \eta_i (F_{i4} + F_{i5} + F_{i6}) + F_{i4} + F_{i5} = 0,$$

where  $i=1, 2, \dots, n$  is the ordinal number of the axis ( $n=2$  for a two-axle vehicle);  $F_{i1}, F_{i2}, F_{i3}$  are the characteristics of the elastic element, shock absorber and conventional "dry friction" unit;  $F_{i4}, F_{i5}$  are the elastic and damping characteristics of the tire. The forms of the tire characteristics are shown in Figure 3. A dynamic model of the MAZ-500 truck was selected as the object for study. It was found that raising the damping coefficient of the tire increases additional power expenditures on vertical oscillations of the vehicle. Computation of the power dissipated by the tire should be done in conjunction with calculation of the vibration parameters of the vehicle. The resultant data may also be used for evaluating the thermal conditions of a tire. Orig. art. has: 5 figures.

SUB CODE: 13 / SUBM DATE: None

Card 3/3

PEPRENKO, Ya. I., inzh. (Khar'kov); CHIRIKH, N. V., inzh. (Khar'kov);  
PISHCHIKH, I. D., inzh. (Khar'kov); LUTAKH, G. I., inzh. (Khar'kov);  
DURKUBSKY, N. Ye., inzh. (Dnipro); TOMSH, V. P.,  
inzh. (Khar'kov)

Chemical treatment bulding for the Northern Donets water pipe  
line of Khar'kov. Ved. i kon. tekhn. no. 5:11-12. K. 1971.

(USSR 1971)

(Khar'kov-Water-Purification)

S/190/63/005/004/006/020  
B101/B220AUTHORS: Tolmachev, V. N., Lomako, L. A., Gurskaya, L. A.

TITLE: Complex compounds of polymethacrylic hydrazide with some metal ions

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 5, no. 4, 1963, 512-518

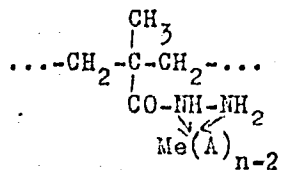
TEXT: When polymethacrylic acid (PMA) is boiled with  $N_2H_4 \cdot H_2O$ , the PMA hydrazide is obtained. Mass polymerized PMA yielded insoluble PMA hydrazide but emulsion polymerized PMA the soluble hydrazide. The molecular weight was 100,000 - 400,000; the nitrogen content was 12 - 17 % in the soluble PMA hydrazide and 1.5 - 2.0 % in the insoluble compound. The content of hydrazide groups in the polymer was determined by potentiometric titration with sodium nitrite and found to be 1 mg-equiv. per g of insoluble polymer. The mean exchange capacity for hydrogen was 1.9 mg-equiv/g. The viscosity does not follow the linear rule  $\eta_{sp}/c = f(c)$ , but decreases with time owing to desaggregation and with increasing pH owing to coiling of the molecules. From PMA hydrazide solutions or on the surface of the insoluble polymer precipitations were obtained with Ni, Co, Cr, Zn or Cd

Card 1/2

Complex compounds of ...

S/190/63/005/004/006/020  
B101/B220

sulfates, which contained N as well as metal ions and whose reflexion spectra differed from those of the metal hydroxides.. In ammoniac solution no precipitations formed with Co, Ni, Zr or Cd ions. The precipitations obtained are polychelates of the general formula:



where Me is the metal ion, A is H<sub>2</sub>O, NH<sub>3</sub>, OH etc., and n is the coordination number of the metal. There are 5 figures and 2 tables.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Khar'kov State University imeni A. M. Gor'kiy)

SUBMITTED: September 15, 1961

Card 2/2

TOLMACHEV, V.N.; LOMAKO, L.A.; KLYUCHAREVA, N.A.

Complex-forming processes on carbonyl-containing cation exchangers.  
Ukr. khim. zhur. 31 no.4:321-328 '65. (MIRA 18:5)

1. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo.



LOMAKO, L.T., starshiy nauchnyy sotrudnik

Electrocardiographic data in nursing infants with the toxic form of bronchopneumonia. Zdrav. Bel. 8 no. 11:29-33 N '62.

(MIRA 16:5)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta okhrany materinstva i detstva (dir. - kand.med.nauk G.A. Kalyuzhin).

(ELECTROCARDIOGRAPHY) (PNEUMONIA)

(INFANTS—DISEASES)

LOMAKO, M. N. Cand Med Sci -- (diss) "Function of the pancreas in tuberculosis patients." Minsk, 1957. 8 pp 20 cm. (Minsk State Med Inst), 200 copies (KL, 24-57, 121)

LOHAKO, H.N.

Meeting of Gomel Province ophthalmologists. Zdrav.Belor. 5  
no.6:78 Je '59. (MIRA 12:9)  
(GOMEL PROVINCE--TUBERCULOSIS)

LOMAKO, M.N.

Achievements and prospects in the development of antituberculosis service in the White Russian S.S.R. Probl.tub. 38 no.7:3-7 '60.

(MIRA 14:1)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk M.N. Lomako).

(WHITE RUSSIA--TUBERCULOSIS--PREVENTION)

LOMAKO, M.N., kand.med.nauk

Study of the incidence of tuberculosis in rural areas. Zdrav. Bel.  
7 no. 4:23-24 Ap '61. (MIRA 14:4)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta tuberkuleza  
(direktor M.N. Lomako).  
(SMORGON' DISTRICT--TUBERCULOSIS)

LOMAKO, M.N.

Make a greater effort in tuberculosis control. Zdrav.Bel. 7  
no.11:3-5 N '61. (MIRA 15:11)

1. Direktor Belorusskogo nauchno-issledovatel'skogo instituta  
tuberkuleza.

(TUBERCULOSIS--PREVENTION)

LOMAKO, M.N.

Further decrease in tuberculosis incidence. Zdrav.Bel. 8  
no.12:3-5 D '62. (MIRA 16:1)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta tuber-  
kuleza.

(TUBERCULOSIS—PREVENTION)

PROCESSES AND PROPERTIES INDEX

CA

Soviet nonferrous metallurgy. P. F. Loulako. *Tsvetnyye Metal.* 20, No. 5, 1-11(1947). A survey for the period 1917-1947. M. H.

9

COMMON ELEMENTS

OPEN MATERIALS INDEX

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	ST	CH	AV	NO	IS	1	2	3	4	5	6	7	8	9	0	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
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BAKAKIN, V.P.; BUBOK, K.G.; BUGAREV, L.A.; BUNIN, A.I.; VOROB'YEV, K.V.  
DROZDOV, V.V.; DOROKHOV, M.S.; ZUBRILOV, S.V.; IGNAT'YEV, L.A.  
KARGOPOLOV, I.G.; KLUSHIN, D.N.; KOMAROV, A.M.; KURILOV, M.S.;  
~~LOMAKO, P.F.~~; MIKULENKO, A.S.; MIKHAYLOV, M.M.; NEMTINOV, B.A.;  
OL'KHOV, N.P.; OSIPOVA, T.V.; PAKHOMOV, Ya.D.; PIAKSIN, I.N.;  
PODCHAYNOV, S.F.; PUSTYL'NIK, I.I.; ROZHKOVA, I.S.; SAVARI, Ye.A.;  
SEMYNIN, A.P.; SPIVAKOV, Ya.N.; STRIGIN, I.A.; SUSHENTSOV, S.N.;  
SYCHEV, P.S.; TROITSKIY, A.V.; USHAKOV, K.I.; KHARLAMOV, A.Ye.;  
SHEMYAKIN, N.I.

Nikolai Konstantinovich Chaplygin. TSvet. met. 28 no.2:57-58  
Mr-Ap '55. (MIRA 10:10)  
(Chaplygin, Nikolai Konstantinovich, 1911-1955)

LOMAKO, P.F.

For further technical progress in nonferrous metallurgy. TSvet.  
met. 29 no.4:1-11 Ap '56. (MLRA 9:8)  
(Nonferrous metal industries)

LOMAKO, P.F.

SOV/137-58-8-16596

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 51 (USSR)

AUTHOR: Lomako, P.F.

TITLE: [ Measures for Improving Gas Cleaning in Nonferrous Metallurgy ] ( [ O meropriyatiyakh po uluchsheniyu' pyleulavlivaniya v tsvetnoy metallurgii ] )

PERIODICAL: Sb. materialov po pyleulavlivaniyu v tsvetn. metallurgii. Moscow, Metallurgizdat, 1957, pp 7-8

ABSTRACT: Shortcomings in gas cleaning in plants of the nonferrous metals industry are noted and measures are outlined for improvement therein.

G.S.

1. Gases--Cleaning 2. Industrial plants--Performance

Card 1/1

LOMAKO, P. F.

137-58-5-9219

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 66 (USSR) .

AUTHOR: Lomako, P. F.

TITLE: Twenty-five Years of Soviet Aluminum Industry (Dvatsatipyati-  
letiyе sovetskoy alyuminiyevoy promyshlennosti)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 8, pp 3-4

ABSTRACT: Bibliographic entry

1. Aluminum--Production 2. Metallurgy--USSR

Card 1/1

LOMAKO, V.A.; RUBANENKO, R.S.; KOBYL'CHENKO, P.S.

Organization of zootechnical-veterinary supply. Veterinarika 42  
no.11:15-18 N '65. (MIRA 19:1)

1. Upravlyayushchiy kontoroy Ukrainskogo zootekhnicheskogo veterinarnogo snabzheniya (for Lomako). 2. Upravlyayushchiy Poltavskoy oblastnoy kontoroy zootekhnicheskogo veterinarnogo snabzheniya (for Rubanenko). 3. Kontroler Poltavskoy oblastnoy kontory zootekhnicheskogo veterinarnogo snabzheniya (for Kobyl'chenko).

ENR(h)/ENT(1) P1-4/Feb

05/0388/05/002/002/0187/0189

ACCESSION NR: AP5010048

AUTHOR: Lomako, V. M.

TITLE: Narrow-band infralow-frequency measuring amplifier

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 2, 1965, 187-189

13  
18  
e

TOPIC TAGS: infrared signal amplification, high gain amplifier, narrow band amplifier, low frequency amplifier

ABSTRACT: The amplifier described is intended for the amplification of infrared signals as low as 0.1  $\mu$ v and 8.3 cps. To reduce the sensitivity to induced noise, a balance input is used, consisting of two cascade input stages, each with two tubes feeding a common cathode resistor. The two input stages feed a common stage in which the in-phase voltage component is suppressed by 60 db compared with the antiphase component. This stage is followed by a narrow-band amplification stage that separates the 8.3-cps component, two phase-shifting stages with cathode-follower output, and a synchronous detector. The amplifier has a gain of  $5 \times 10^6$  and is linear for input signals from 1.0 to 5.0  $\mu$ v. A circuit diagram, brief descriptions of the optical modulator and of some other stages, and a list of the more important components are included. (Fig. art. has 1 figure.)

Card 1/2

L 43193-65  
ACCESSION NR: AP5010048

ASSOCIATION: Belorusskiy gosudarstvennyy universitet imeni V. I. Lenina (Belorus-  
sian State University)

SUBMITTED: 03Sep64

ENCL: 00

SUB CODE: EC, OP

NO REF SOV: 002

OTHER: 000

ATD PRESS: 3242

Card 2/2

ACC NR: AP6033157

SOURCE CODE: UR/0250/66/010/009/0641/0643

AUTHOR: Sevchenko, A. N. (Academician AN BSSR); Lomako, V. M.; Tkachev, V. D.

ORG: Belorussian State University im. V. I. Lenin (Belorusskiy gosudarstvennyy universitet)

TITLE: Temperature and optical quenching of radiative recombination of gallium arsenide

SOURCE: AN BSSR. Doklady, v. 10, no. 9, 1966, 641-643

TOPIC TAGS: gallium arsenide, luminescence quenching, radiative recombination, temperature dependence, absorption band, Raman spectrum

ABSTRACT: The purpose of the investigation was to determine the influence of temperature on the spectral distribution of the radiative recombination of electroluminescent diodes obtained from n-type GaAs by diffusion of beryllium, and the influence of constant external illumination in the intrinsic absorption band ( $\lambda < 0.83$  nm) on the intensity of the recombination band. The carrier density in the initial GaAs was  $8 \times 10^{17} - 6 \times 10^{18} \text{ cm}^{-3}$ . The optical resonators were made from the crystal by cleavage. The Raman spectra were investigated with apparatus based on the IKS-12 spectrometer. The radiation receiver was a germanium photodiode or a cooled PbS photoresistance. The constant illumination was with the aid of an incandescent lamp and a number of filters. The tests were made at temperatures 80 - 30K in a cryostat evacuated to  $10^{-4}$  mm Hg. The radiative recombination without additional illumination

Card 1/2



ACC NR: AF6033157

had three peaks, at 1.02, 1.26, and 1.44 ev. Additional illumination reduced greatly the 1.26 ev peak and both shifted and attenuated the two other bands. The radiative recombination also decreased with increasing temperature. The results are related to the formation of effective centers for electron adhesion. The authors thank M. T. Lappo and V. S. Veliyev for help with the experiments. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 21May66/ ORIG REF: 004/ OTH REF: 001

Card 2/2

ACC NR: AP7005881

SOURCE CODE: UR/0181/66/008/012/3683/3684

AUTHOR: Volod'ko, L. V.; Lappo, M. T.; Lomako, V. M.; Tkachev, V. D.

ORG: Belorussian State University im. V. I. Lenin, Minsk (Belorusskiy gosudarstvennyy universitet)

TITLE: Modulation of light reflected from silicon p-n junctions irradiated with fast neutrons

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3683-3684

TOPIC TAGS: pn junction, neutron irradiation, fast neutron, light reflection, light modulation

ABSTRACT: Working on the assumption that the spectra of modulated reflected light can yield information on the energy spectrum of radiation damage in semiconductor crystals, especially directly in the vicinity of p-n junctions, the authors have measured the dependence of the intensity of reflected light on the magnitude of the current through a p-n junction in n-type silicon with specific resistivity 0.5 ohm-cm. The junction was prepared by diffusion, the light was produced by an incandescent lamp, and the reflected light was measured with a monochromator. The nonequilibrium carriers were injected by applying unipolar current pulses at 20 cps frequency in the forward direction. Reflection from nonirradiated control samples was observed over the entire spectral range (0.8 - 2.5  $\mu$ ) and exhibited no structure. Irradiation with neutrons (integral dose from  $10^{15}$  to  $10^{18}$  neut/cm<sup>2</sup>) produced a clear-cut structure in the spec-

Card 1/2

UDC: none

ACC NR: AF7005881

tral region from 1 to 2.5  $\mu$ . The shape of the spectra depend on the irradiation dose and on the subsequent heat treatment, thus pointing to a direct connection between the observed maxima and the damage produced by the radiation. From a comparison of the data obtained with earlier results (FTT v. 5, 3188, 1963) on the photoconductivity in irradiated silicon crystals, it is concluded that the maxima observed on the structure are correlated with the radiation-damage levels determined in the earlier paper. Orig. art. has: 2 figures. [02] [WA95]

SUB CODE: 20/ SUBM DATE: 01Jul66/ ORIG REF: 001/ OTH REF: 001

Card 2/2

LOMAKO, Ye., kandidat tekhnicheskikh nauk; SHEMONAYEV, P., redaktor;  
IGNAT'YEVA, A., tekhnicheskiiy redaktor.

[Technical training in the factory] Tekhnicheskoe obrazovanie na zavode. [Moskva] "Moskovskii rabochii," 1954. 29 p. (MLRA 7:12)  
(Technical education) (Employees, Training of)

VNIIP, N. I. Kond. tekhn. nauki SSSR, Ye. S. Kond. obrat. nauk.  
OBTANENIE A. S. 1978.

Fatigue strength of shafts made from carbon and low-alloy steels  
in the area of press-fit elements. Trudy VNIIP no. 19, 1978, 144.  
(VNIIP 1978)

LOMARU, Ye. P., kand. tekhn. nauk: TEL'NYUK, N. I., inzh.

Studying the possibility of substituting steel without or with reduced nickel content for cemented nickel-containing steels in diesel locomotive construction. Trudy VNIT no. 19-188-198 '64. (MIRA 28:3)

USSR / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Aerobic Bacilli. F-4

Abs Jour: Ref Zhur-Biol., 1958, No 17, 76786.

Author : Lomakovskaya, V. M.  
Inst : L'vov Zooveterinary Institute.  
Title : On the Propagation of the Microbe of Siberian Anthrax in Soils of Various Types.

Orig Pub: Sb. nauchn. tr. L'vovsk. zoovet. in-ta, 1956, 8, 44-52.

Abstract: The possibility was studied of the propagation of Bacillus anthracis in 8 different types of sterilized and nonsterilized soils with different humus content and different pH (from 6.4 to 7.3). Soils were contaminated with blood and detritus from organs of mice and rabbits which had perished from Siberian Anthrax. In sterile soils, in 24 hours

Card 1/2

38

*LOMANCHEKOV, S. E.*

SHIFRIN, Abram Shmerovich; LEVIN, Boris Gustavovich; LIVSHITS, Il'ya  
Iosifovich; PISAREVSKIY, Moisey Isakovich; FELOV, Nikolay  
Aleksandrovich; *LOMANCHEKOV, S. E.*, inzh., red.; VUL'F, A.M.,  
kand. tekhn. nauk, retsenzent; MORZOV, V.D., kand. tekhn. nauk, red.;  
BORODULINA, I.A., red. izd-va; POL'SKAYA, R.G., tekhn. red.

[Highly productive cold working of metals] Vysokoproizvoditel'naya  
kholodnaya obrabotka metallov. Moskva, Gos. nauchno-tekhn. izd-vo  
mashinostroit. lit-ry, 1958. 294 p. (MIRA 11:12)  
(Metals--Cold working)



LOMANKIN, P.I.; CHECHENIN, M.Ye.

Problem of the study of gas flow through the walls of asbestos-  
cement pipes. Trudy NIAsbesttsementa no.19:56-61 '65.  
(MIRA 18:9)

LOMANOV, A., inzhener; KORNEYICHEV, N.; ZHOROV, S.

Improving the organization of automobile servicing. Avt.transp. 34  
no.9:11-12 S '56. (MLRA 9:11)

(Automobiles--Maintenance)

PERPELKIN, M., inzh.; LOMANOV, A., inzh.

Bureau of Technical Assistance helps automotive transportation  
units. Avt.transp. 38 no.2:17-19 F '60. (MIRA 13:6)  
(Transportation, Automotive)

PEREPEIKIN, M.; LOMANOV, A.

State All-Union Institute of Automotive Transportation in 1962.  
Avt.transp. 40 no.1:56 Ja '62. (MIRA 15:1)  
(Transportation, Automotive--Research)

LOMANOV, A.M.; SAL'NIKOV, N.A.; CHURIN, S.N.

Constructing walls made of gypsum slabs with the aid of a moulding board.  
Rats. i izobr. predl. v stroi. no.96:3-6 '54. (MIRA 8:7)

1. Trest Mosgrashdamglezhilstroy Ministerstva ugol'noy promyshlennosti.  
(Walls)

LOMANOV, A.P.  
CIA

The electrolysis of erythrocytes. I. The effect of direct current on the erythrocytes of rabbits. A. P. Lomanov. *J. Physiol. (U. S. S. R.)* 21, 551 (1938); *Chem. Zvest.* 1938, II, 1265-6; cf. L. A. Semenov, *C. A.* 34, 2872. -The erythrocytes of rabbit blood are changed under the influence of the direct current, with polar differences in the phenomena being shown. In the region of the anode the erythrocytes increase in circumference and become light in color (the hemolysis shows the bursting of the erythrocytes). At the cathode the diam. of the cells decreases; they become intensely colored and assume a regular round form. A current changing in direction (every 10-15 min.) had no effect on the erythrocytes. M. G. Mironov

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

LOMANOV, A. P.

Stroeniye i zhizn' zhirotnogo organizma (Structure and Life of Animal Organisms).  
Novosibirsk. 1951, 32 pages with illustrations.

U-5235

LOMANOV, A.P., dotsent

Blood changes related to the age of the organism. Probl.gemat.  
i perel.krovi 3 no.3:35-38 My-Je '58 (MIRA 11:6)

1. Iz fiziologicheskoy laboratorii (zav. A.P. Lomanov) Novosibirskogo  
sel'skokhozyaystvennogo instituta.

(BLOOD,  
age factor (Rus))  
(AGE, effects  
on blood (Rus))



LOMANOV, F. K.

Ukatka asfal'tobetonnykh pokrytii. [Rolling of asphalt coating]. Moskva, Dorizdat  
Gushosdora, 1943. 80 p. illus.  
MaU

DLC: TE220.L6

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress,  
Reference Department, Washington, 1952, Unclassified.

LOMANOV, F.K., laureat Stalinskoy premii, kandidat tekhnicheskikh nauk

Experience in constructing cement concrete road surfaces in  
winter. Avt.dor.17 no.3:13-16 N-D'54. (MIRA 8:10)  
(Road construction--Cold weather conditions)

LOMANOV, F.K.  
RUSAKOV, D.A.; LOMANOV, F.K.

Economic efficiency due to the reconstructed Moscow-Moginsk  
highway. Avt. dor. 19 no.10:8-9 0 '56. (MLRA 9:12)

(Roads)

LOMANOV, F.M.; MILLER, E.E., kand. tekhn. nauk, retsenzent; KATS,  
G.B., kand. tekhn. nauk, red.; DEMKIN, N.F., tekhn. red.

[Production and organization structure of machinery plants]  
Proizvodstvennaia i organizatsionnaia struktura mashino-  
stroitel'nykh predpriatii. Moskva, Mashgiz, 1962. 97 p.  
(MIRA 16:3)

(Machinery industry--Management)

LOMANOV, I.

LOMANOV, I.

Consolidation of the transportation of petroleum products. Avt.  
transp. 32 no.7:11-12 J1 '54. (MLBA 7:9)  
(Petroleum products--Transportation) (Transportation,  
Automotive)

MISHCHENKO, G.Ye., arkhitekter; LOMANOV, I.A., inzh.

Expansion of the baking industry in Moscow according to the  
seven-year plan. Ger. khoz. Mosk. 33 no.3:8-10 Mr '59.  
(MIRA 12:5)

(Moscow--Bakers and bakeries)

211

LOMANOV, I.A., inzh.

Drawing up the best plans of freight traffic flow. Gor.khoz.Mosk.  
35 no.7:26-29 JI '61. (MIRA 14:7)  
(Moscow--Transportation, Automotive--Freight)

LOMANOV, L.A. (Novosibirsk)

Congenital complete auriculoventricular heart block combined  
with a defect of the interauricular septum. Klin.med. 33  
no.6:83 Je '55. (MLRA 8:12)

1. Iz gosital'noy terapevticheskoy kliniki (dir. A.A.Demin)  
Novosibirskogo meditsinskogo instituta.  
(HEART--ABNORMITIES AND DEFORMITIES)



EXCERPTA MEDICA Sec 2 Vol 12/5 Physiology May 59

1764. EFFECT OF EXPERIMENTAL ARTERIOVENOUS ANEURYSMS ON THE HEART (Russian text) - Lomanov L. A. Novosibirsk Med. Inst., Novosibirsk, USSR - BYULL. EKSPER. BIOL. I MED. 1958, 45/6 (36-40) Tables 1 illus. 2

Chronic experiments on dogs with formation of a. v. fistulae support clinical observations on the complicated changes in the heart which take place in congenital and traumatic a. v. aneurysms. Endarteritis appears at the site of the anastomosis. Certain conditions are created favouring the development of septic endocarditis even without the inoculation of bacteria. Associated bacteraemia (*Streptococcus viridans*) indicates an autoinfective character of the septic process. (11, 18)

LOMANOV, L. A., Cand Med Sci -- (diss) "Effect of experimental arterio-venous aneurism in the heart." Novosibirsk, 1960. 20 pp; (Novosibirsk State Medical Inst); 250 copies; price not given; (RL, 21-60, 150)

LOMANOV, L.A.

Diagnosis of a nonpigmented form of Addison's disease. Probl. endok.  
i gorm. 10 no.6:58-59 N-D '64. (MIRA 18:7)

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meditsinskogo instituta.

L O M B N O U M. F.

Measurement of the ionizing capacity of particles in a bubble chamber G. A. Buzov, Yu. Krestnikov, and M. R. Lomunov (Acad. Sci. U.S.S.R., Moscow). U.S.S.R. Symposium High Energy Accelerators and Detectors, Geneva, 1958, Proc. 2, 25-7. The track diameter of particles in a bubble chamber is proportional to the square of the charge on the particle divided by the square of the ratio of particle velocity to the velocity of light, and is independent of chamber conditions.

James R. Oliver

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LOMANOV, M.F.  
SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1770  
AUTHOR BLINOV, G.A., KRESTNIKOV, J.U.S., LOMANOV, M.F.  
TITLE Measuring the Ionization Power of Particles in a Bubble Chamber.  
PERIODICAL Žurn. eksp. i teor. fis, 31, fasc. 5, 762-770 (1956)  
Issued: 1 / 1957

Contrary to other authors the authors of the present work employed the method of pressure drop up to a certain level, which warranted a very stable operation of the chamber. The experimental part of the work was carried out by means of the synchrocyclotron of the Institute for Nuclear Problems of the Academy of Science in the USSR.

Structure of the chamber and selection of mode of operation: The work space of the chamber consists of a cylindrical vessel of stainless steel (inner diameter 92 mm, height 70 mm). Simply distilled technical propane with a vapor density of 30 atm at 64° C was used as an operating liquid. The construction of the chamber is discussed on the basis of a drawing. A particular feature of the device described is the drop of pressure in the chamber down to a constant regulatable level. By a pressure stabilizer and through an electromagnetic inlet valve carbonic acid gas is introduced under pressure of 38 atm. This pressure is transferred by means of water to two membranes. After complete condensation of the gaseous phase the chamber is ready for expansion. During work with an accelerator the chamber was fitted in a collimated bundle of neutrons with average energy, in a bundle of  $\gamma$ -quanta originating from the decay of neutral pions, or in a bundle of particles emitted from the target and from the

Žurn. eksp. i teor. fis, 31, fasc. 5, 762-770 (1956) CARD 2 / 2 PA - 1770

walls of the collimator in the direction of the protons. A control system made the remotely controlled measuring of temperature, pressure, and other quantities possible in the chamber.

Methods for the measuring of the density of the traces: At present the grain densities in nuclear photo emulsions are being determined by the method of the average length of distances and from the number of distances. The authors employed similar methods, viz. 1.) The method of simply counting the number of bubbles. 2.) The method of the average length of distances, which is the most objective. 3.) Determination of the number of distances exceeding a certain minimum distance. This method is the most accurate for dense traces. The densities of the traces of 5 cm length can be determined within a 20-fold variation range with errors of from 6 to 10% without modifying the accuracy of the chamber.

In conclusion the identification of the particles and the dependence of the density of the trace on the velocity of the particle is discussed. The distinguishing features of electrons, protons, deuterons, and pions are pointed out.

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LOMANOV, M. F.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1778  
AUTHOR KUZNECOV, E.V., LOMANOV, M.F., BLINOV, G.A., CHUAN SEN-NJAN'  
TITLE A Bubble Chamber for the Study of Cosmic Radiation.  
PERIODICAL Žurn. eksp. i teor. fis, 31, fasc. 5, 911-911 (1956)  
Issued: 1 / 1957

Although the life of the bubble germs created by the ionizing particle is considerably shorter than the time taken by the drop in pressure, there is a possibility of making use of bubble chambers for the study of cosmic radiation. This possibility, which is discussed in the course of the present work, consists in increasing the degree of efficiency of the chamber, i.e. in the relative increase of the portion of time in which the chamber is sensitive. The degree of efficiency is determined by the duration of sensitivity in each individual cycle and by the duration of the cycle. By shortening the cycle and by other measures the degree of efficiency of the bubble chamber could be increased to such an extent that the investigation of cosmic radiation by means of a bubble chamber became practically possible.

The bubble chamber is schematically shown in form of a drawing; it consists of a chamber, a limiter, and a compressor. The cylinder-shaped chamber is filled with FREON-13(c  $\text{ClF}_3$ ) and has a volume of 1 liter. The windows consisted of organic glass panes. The compressor causes periodical compression and expansion of the air with a frequency of 10 cycles per second. The necessary power output is low because the energy used for compression is liberated on the occasion of expansion. The cylinder of the compressor is filled with oil. By way of this oil

Žurn. eksp. i teor. fis, 31, fasc. 5, 911-911 (1956) CARD 2 / 2

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the stress caused by the plunger is transmitted to the water contained in the limiter, and from there to the FREON-13 in the bubble chamber. The limiter regulates the limits within which pressure in the chamber is modified, it causes the pressure curve to assume the appearance of a rectangular wave. The upper and lower limit value is determined by the pressure  $P_s$  and  $P_i$  in the left and right part of the limiter respectively.  $P_s$  is 1,5 or twice as high as the pressure of the saturated vapors of FREON-13, and  $P_i$  is lower by about 10 atm than the pressure of the saturated vapors. The ratio between the duration of compression and that of expansion can be changed by changing the quantity of FREON-13 in the chamber or the quantity of water in the limiter. The pressure curve recorded by means of a capacity manometer was observed on an oscillograph. The bubbles cannot conglomerate during compression, they rise to the top, and then conglomerate in a trap which is filled with cooled solid carbonic acid. An attached photograph shows traces which were recorded with the chamber. When the chamber was set up in the cellar of a two-storeyed house, an average of 5 cosmic rays per minute was observed. A rough estimate of the degree of efficiency furnishes the value of 0,1.

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LOMANOV, M.F., BLINOV, G.A., KRESTNIKOV, Yu.S.

"Measurement of the Ionizing Capacity of Particles in a Bubble Chamber," paper presented at CERN Symposium, 1956, appearing in Nuclear Instruments, No. 1, pp. 21-30, 1957

LOMANOV, M.F.

Distr: 4E3d

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MEASUREMENT OF THE IONIZING POWER OF PARTICLES IN A BUBBLE CHAMBER.

G. A. Blinov, U. S. Krestnikey, and M. F. Lomanov, Soviet Phys. JETP 4, 681-70(1957) June.

The possibility of the measurement of the ionizing power of particles in a propane bubble chamber is demonstrated. The chamber was operating in conjunction with an accelerator. The use of the method of the reduction of pressure to a controllable constant level ensured the stability of chamber operation necessary for ionization measurements. The period of sensitivity was 10 msec. Measurements of the ionizing power of particles were carried out in the range up to eight times minimum ionization. It was found that the track density changes with the velocity of the particle as  $1/\beta^2$  for  $\beta < 0.6$ . For velocities close to that of light, relativistic increase in the track density is observed. The used methods on the track evaluation are described. (auth)

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the swelling time and taking certain other precautions, the  
efficiency of the chamber has been increased so that it has  
become practical to work with ceramic ware. (A.C.)

J. R. V.

Lomanov, M. F.

AUTHORS: Lomanov, M.F., and Chirikov, B.V.

120-5-4/35

TITLE: The Effect of Overlap in the Measurements of Track Density in a Bubble Chamber (Uchet perekrytiya pri izmerenii plotnosti sleda v puzyr'kovoy kamere)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No. 5, pp. 22 - 25 (USSR).

ABSTRACT: The possibility of measuring the ionization (track density) produced by charged particles in a bubble chamber was discussed in Ref.1 and a method for carrying out such a measurement was proposed. The aim of the present paper is to review the different methods of measuring the ionization and to give an analysis of the statistical errors involved. The track density is defined (as in Ref.1) as the initial number of nucleating bubbles per unit length of track produced by a charged particle in the liquid. If the track density is sufficiently small, it can be determined by a simple count of the bubbles on a photograph of the track. In ordinary conditions, however, it is necessary to take into account random overlap of the bubbles and thus a direct measurement of the track density is impossible. The following model is assumed. Images of the bubbles are circular and all have the same diameter  $D$ .  
Card 1/3 The centres of these bubbles are randomly distributed along a