"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

ACCESSION NR: AP4018159 S/0191/64/000/003/0014/0017

AUTHORS: Levantovskaya, I.I.; Kovarskaya, B.M.; Neyman, M.B.; Rozantsev, E.G.; Yazvikova, M.P.

TITLE: Inhibiting the thermal oxidative destruction of polyamides with aromatic amines and radical type stabilizers

SOURCE: Plasticheskiye massy*, no.3, 1964, 14-17

TOPIC TAGS: polyamide, thermal oxidation, oxidation inhibition, antioxidant, phenyl beta naphthylamine, piperidine nitric oxide, piperidone nitric oxide, radical type stabilizer, induction period

ABSTRACT: The inhibition of thermal oxidation of polyamides with phenyl-beta-naphthylamine and with the free radical type stabilizers 2,2,6,6-tetramethylpiperidone nitric oxide and 2,2,6,6-tetramethyl-4-ethyl-4-hydroxypiperidine nitric oxide was investigated. The radical stabilizers display marked inhibition of thermal oxidation. Less than half of the original amount of aromatic amine is spent during the induction period in inhibiting polyamide thermal oxidation; inhi-

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ACCESSION NR: AP4018159

bition of oxidation at the end of the induction period apparently depends on the remaining unspent antioxidant. Unlike the aromatic amines, the free radical inhibitors retard the oxidation of polyamides until they are completely consumed. At the end of the induction period the rate of oxidation with these radical inhibitors approaches the rate of oxidation of the uninhibited polymer. Orig. art. has: 8 figures and 2 formulas.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: CH NR REF SOV: 008 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 12003-65 EPA(s)-2/EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4/Pt-10 WW/
RM

ACCESSION NR: AP4047218 S/0190/64/006/010/1885/1890

AUTHOR: Levantovskaya, I. I.; Kovarskaya, B. M.; Dralyuk, G. V.; Neyman, M. B.

B

TITLE: Mechanism of thermal oxidative degradation of polyamides

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 10, 1964, 1885-1890

TOPIC TAGS: polyamide, nylon, polycaproamide, degradation, thermal oxidative degradation, degradation mechanism

ABSTRACT: In order to elucidate the thermal oxidation mechanism of polyamides, a study has been made of the volatile thermal oxidation products of polycaproamide. The thermal oxidation was carried out in a special apparatus described in the article. The volatile products were analyzed by chromatography, polarography, and chemical qualitative analysis. The following products were isolated: water, CO_2, CO, and in smaller quantities, methanol, formaldehyde, and acetaldehyde. A mechanism is proposed for the formation of these

Card 1/2

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 12003-65

ACCESSION NR: AP4047218

products, which involves peroxide-radical and peroxide decomposition. Orig. art. has: 4 figures and 11 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific Research Institute for Plastics).

SUBMITTED:	24Dec63	ATD PRESS:	3120	ENCL:	00
SUB CODE:	MT, GC	NO REF SOV:	008	OTHER:	007

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 13818-66 EWT(m)/EWP(1) WW/RM

ACC NR: AP6002481 (A) SOURCE CODE: UR/0191/66/000/001/0042/0044

AUTHORS: Neyman, M. B.; Kovarskaya, B. M.; Levantovskaya, I. I.; Yazvikova, M. P.

ORG: none

TITLE: Thermo-oxidative degradation of polytetrahydrofurane 44,55

SOURCE: Plasticheskiye massy, no. 1, 1966, 42-44

TOPIC TAGS: polymer, oxidative degradation, oxidation, oxidation kinetics

ABSTRACT: To extend the work on the properties of polytetrahydrofurane, published by A. B. Blyumenfel'd, M. B. Neyman, and B. M. Kovarskaya, (DAN SSSR, 154, 631, 1964), the thermo-oxidative degradation of polytetrahydrofurane was studied in the temperature interval of 90--120C. The experimental technique is that described by V. B. Miller, M. B. Neyman, and Yu. A. Shlyapnikov (Vysokomolek. soyed., 1, 1703, 1959). The kinetics of oxygen absorption, the thermal dependence of the induction period, the autocatalytic factor, the time for the maximum accumulation of hydroperoxides, and the dependence of the induction period on the concentration of a number of antioxidants at 120C and 200 mm ϕ_2 pressure were determined. The experimental results are presented graphically (see Fig. 1). It was found that the autocatalytic factor φ and the induction period τ are given by

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 13818-66

ACC NR: AP6002481

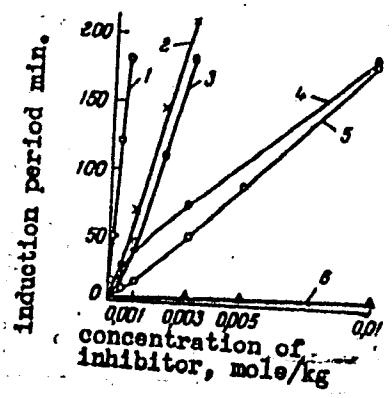

Fig. 1. Dependence of the induction period on the concentration of antioxidant. 1 - N-phenyl-N'cyclohexyl-n-phenylenediamine; 2 - 2,2-methylene-bis-(4-methyl-6-tert-butyl)-phenol (stabilizer 2246); 3 - pyrocatechine; 4 - 2,6-di-tert-butyl-4-methylphenol (ionol); 5 - ionolpyrocatechine-phosphite; 6 - triionolphenyl phosphite (polygard). T = 200C, $P\emptyset_2$ = 200 mm.

$$\varphi = ae^{-\frac{\gamma_1}{T}}$$

$$\tau = be^{-\frac{\gamma_2}{T}}$$

where γ_1 and γ_2 are equal to 6000 and 7000 respectively, and a and b are constant. Orig. art. has: 5 graphs and 8 equations.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 27788-65 EWT(m)/EPA(s)-2/EPF(c)/EWP(j) Pc-4/Pr-4/Pt-10 RM
ACCESSION NR: AP5004309 S/0191/65/000/002/0015/0017

AUTHOR: Levantovskaya, I. I.; Kovarskaya, B. M.; Novoselova, I. A.; Berlin, A. A.; Bass, S. I.; Klapovskaya, O. A.; Gracheva, B. S.; Andrianova, N. V.

TITLE: Stabilization of polyethylene terephthalate

39
B

SOURCE: Plasticheskiye massy, no. 2, 1965, 15-17

TOPIC TAGS: polymer stabilization, polyethylene terephthalate, polymer heat stability, polymer film, dielectric property, film strength, activated anthracene, polyester

ABSTRACT: The thermal stability of polyethylene terephthalate was determined in the presence and absence of thermally activated anthracene to study the effect of this stabilizer on the mechanical and dielectric properties of polyethylene terephthalate films. The thermal decomposition of polyester crumb, indicated by the increase in gas pressure, was determined at 260C and was found to increase with initial oxygen pressure in the absence of stabilizer. Thermally activated anthracene was prepared by heating in an inert atmosphere to 450C for 1 hour. In 0.1% concentration, the stabilizer markedly decreased the initial decomposition rate; 1% additions were more effective than non-activated anthracene and decreased the

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L 27788-65
ACCESSION NR: AP5004309

2

gas generation at 260C and 450 mm Hg oxygen pressure to about one fourth of the values measured with non-stabilized polymer. A similar but lesser effect was observed at 260C in a helium atmosphere. Films prepared with 0.1% activated anthracene showed improved tensile strength, both longitudinal and crosswise, an increase in specific electrical resistance and a slight decrease in dielectric loss angle. In 0.1% concentration the additive also had a significant effect on aging of films at 150C for up to 30 days. After this period, stabilized films exhibited good tensile strength, whereas the strength of non-stabilized films was reduced to a fraction of the initial value. The improved inhibitor activity of thermally treated anthracene can be related to the formation of paramagnetic particles and the polarization of molecules, as indicated by published studies. Activated anthracene is recommended as an additive for producing oriented films of polyethylene terephthalate. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: OC

NO REF SOV: 011 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 32993-65 EWT(m)/EPA(s)-2/EPF(c)/EWG(v)/EPF(n)-2/T/EWP(j)/EPR/EPA(bb)-2/
EWA(1)/EWA(n) Pc-4/Pe-5/Pr-4/Ps-4/Pe-5/Pt-10/Pu-4 WW/JAJ/RM

ACCESSION NR: AP5007415 S/0286/65/000/004/0058/0058

AUTHOR: Levantovskaya, I. I.; Bass, S. I.; Kovarskaya, B. M.; Berlin, A. A.

64
B

TITLE: A method for stabilizing polyamides. Class 39, No. 168421

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 58

TOPIC TAGS: polyamide plastic, thermal stability, stabilization, anthracene

ABSTRACT: This Author's Certificate introduces a method for stabilizing polyamides against destruction by thermal oxidation. The process is simplified and the cost is reduced by using products from heat treatment of aromatic hydrocarbons with condensed nuclei, e.g. anthracene, as stabilizers.

ASSOCIATION: none

SUBMITTED: 16Jul63 ENCL: 00 SUB CODE: MT, GC

NO REF SOV: 000 OTHER: 000

Card 1/1

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 62953-65 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5019563 UR/0191/65/000/008/0007/0008

678.675'474'46.019.391

AUTHOR: Kovarskaya, B. M.; Tanunina, P. M.; Levantovskaya, I. I.; Litvak, L. P.; Kurpichnikov, P. A.; Gurvich, Ya. A.

TITLE: The effect of stabilization on prolonged thermal oxidation aging of polyamide 68

SOURCE: Plasticheskiye massy, no. 8, 1965, 7-8

TOPIC TAGS: antioxidant additive, polyamide, thermal stability, high temperature oxidation, stabilizer additive, primary aromatic amine

ABSTRACT: The purpose of this work was to verify the results of laboratory studies on the inhibition of thermal oxidation of polyamide 68 by various additives. Several test batches of polymer were produced containing the following inhibitors: N,N'-di-maphthyl-*n*-phenylenediamine, phenyl-β-naphthylamine, 2,6-di-*tert*-butyl-4-methylphenyl and α and β-naphthyl ester of pyrocatecholphosphorous acid. The introduction of additives did not have a significant effect on the melting point and the viscosity of polyamide 68 solutions. The various polyamide 68 specimens were

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L 62953-65

ACCESSION NR: AP5019563

thermostatted in air at 90 and 135°C in drying ovens. The physiochemical changes in polyamide show up most strongly in the specific impact strength. All of the investigated stabilizers increase the stability of polyamide 68 to prolonged thermal oxidation. The most effective are aromatic amines and especially N,N'-di-β-naphthyl-n-phenylenediamine. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NO REF SOV: 003 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 37215-66 EWP(j)/EWT(m)/T IJP(c) RM/WW

ACC NR: AP6018127 (A) SOURCE CODE: UR/0191/66/000/006/0040/0042

41
B

AUTHOR: Kovarskaya, B. M.; Kolesnikov, G. S.; Levantovskaya, I. I.; Smirnova, O. V.; Drakyuk, G. V.; Poletakhina, L. S.; Korovina, Ye. V.

ORG: none

TITLE: Thermo-oxidative degradation of polycarbonates

SOURCE: Plasticheskiye massy, no. 6, 1966, 40-42

TOPIC TAGS: polycarbonate plastic, heat resistance, oxidative degradation, oxidation kinetics, reaction mechanism

ABSTRACT: Polycarbonates, molecular weight of about 30,000, based on 2,2-di-(4-hydroxyphenyl)-propane (PK-1), on 1,1-di-(4-hydroxyphenyl)-cyclohexane (PK-2) and on di-(4-hydroxyphenyl)-phenylmethane (PK-3) were subjected to thermal oxidation in vacuum. Kinetic curves of the thermal oxidations showed PK-1 was most stable and PK-3 the least stable. Energies of activation for the oxidations were calculated: 21.0, 17.6 and 13.0 kcal/mol, respectively. Reaction mechanisms are discussed. Auto-accelerated processes are indicated in the initial period of thermal oxidation of PK-1 and PK-2. Radical-chain oxidation

UDC: 678.674'41'5.01:620.192.424

Card 1/2

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 42050-66 EWT(m)/EWP(j) RM

ACC NR: AP6011232 (A) SOURCE CODE: UR/0413/66/000/006/0074/0074

INVENTOR: Gurvich, Ya. A.; Kirpichnikov, P. A.; Zimin, Yu. B.; Koyarskaya, B. M.; Levantovskaya, I. I.

ORG: none

18
B

TITLE: Method of stabilizing polyamides. 15 Class 39, No. 179918 15

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 74

TOPIC TAGS: polyamide, chemical stabilizer, fertilizer

ABSTRACT: An Author Certificate has been issued for a method of stabilizing polyamides by introducing organophosphorus stabilizers into them. N-alkylated anilides of arylphosphorous acids are used to expand the variety of organophosphorus stabilizers. [Translation] [NT]

SUB CODE: SUBM DATE: 11Jun64/

Card 1/1 af UDC: 678.675.048:547.55.41

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

KOROLEVA, A.M.; LEVANTOVSKAYA, O.M.

Importance of the glass test and formaldehyde reaction in the diagnosis of rheumatic diseases of the cardiovascular system in pregnancy. Lab. delo 8 no.10:21-24'62 (MIRA 17:4)

1. Moskovskiy oblastnoy nauchno-issledovatel'skiy institut akusherstva i ginekologii (dir. - zasluzhennyy vrach RSFSR O.D.Matspanova).

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKAYA, O.M.; SPASSKAYA, V.A., kand. med. nauk

Significance of electrophoretic study of blood protein fractions for detecting the activity of the rheumatic process in pregnant women with heart defects. Akush. i gin. no.1:137-139 '65. (MIRA 18:10)

1. Moskovskiy oblastnoy nauchno-issledovatel'skiy institut akusherstva i ginekologii (dir.- kand. med. nauk O.P. Matspanova, nauchnyy rukovoditel' - prof. A.V. Lankovits).

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANOVSKIY, L.

Economic efficiency of irrigation farming. Vop. ekon. no.11: 69-76 N '63. (MIRA 17:2)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, M. I.

From the Russian for Dr. Milton W. Brightman

From Book: Blood Supply of Central and Peripheral Nervous System of Man (Krovosnabzhenie tsentral'noi i perifericheskoi nervnoi sistemy cheloveka), edited by B. V. Ognev. Published by Academy of Medical Sciences of USSR, Moscow, 1950, pp. 224-257.

Vascular System of the Human Spinal Cord
by
M. I. Levantovskii
(Tr.: In references to the non-Russian literature, the phonetically transliterated surnames may be hard to recognize).

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, M. I., Prof.

USSR/Medicine - Antibiotics Jan 52

"Intraosseous Administration of Penicillin in Hematogenic Osteomyelitis," Prof M. I. Levantovskiy, V. I. Spasov, M. I. Andina, Chair of Faculty Surg, Chkalov State Med Inst

"Sov Med" Vol XVI, No 1, pp 10-12

Subsequent to surgery, filling of the bone marrow space can be carried out with penicillin paste, A. V. Vishnevskiy's oil-balsam mixt, or by muscle plastic surgery (leaving a stem connected with the transplant). Intraosseous administration of penicillin aids in eliminating the inflammation and stimulates active regeneration of tissues. 204T35

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, M.I., professor; KOLESNIKOV, N.N.

Experimental justification for myoplasty in surgery for hematogenic osteomyelitis. Ortop., travm. i protez. 17 no.1:24-26 Ja-F '56. (MLRA 9:12)

1. Iz kafedry Fakul'tetskoy khirurgii (zav. - prof. M.I.Levantovskiy) i kafedry operativnoy khirurgii (zav. - dots. A.K.Silant'yev) Chkalovskogo meditsinskogo instituta (dir. - prof. I.I.Kositsyn)

(OSTEOMYELITIS
hematogenic, exper., musc. plastics in)
(MUSCLES, surg.
exper., in hematogenic osteomyelitis)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, M.I., prof.; KORNITSKIY, M.A.

Clinical aspects and surgical treatment of Barre-Masson disease. Sov. med. 25 no.8:143-146 Ag '61. (MIRA 15:1)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. M.I. Leventovskiy) Orenburgskogo meditsinskogo instituta (dir. - prof. Z.S.Khlystova).
(BLOOD VESSELS—TUMORS)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V.

Exploration of the moon. Kryl.rod. 14 no.6:34-35 Je '63. (MIRA 16:7)

(Lunar probes)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V.[Levantovs'kyi, V.]

Sailing to the stars. Znan. ta pratsia no.5:8-10 My '63. (MIRA 16:6)

(Solar energy)
(Space vehicles—Propulsion systems)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V.

Into space. Voen. znan. 39 no.8:3-4 Ag '63. (MIRA 16:8)

1. Nauchnyy kommentator Agentstva Pechati Novosti.
(Space flight)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V.

On orbits toward Mars and Venus. Kryl. rod. 14 no.12:30-31 D '63. (MIRA 17:2)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

L 6985-65 EEO-2/EWG(r)/EWG(j)/FSF(h)/FSS-2/EWG(j)/EWT(1)/FPA(b)/FS(v)-3/EEC(k)-2/EWG(v)/EWA(d)/EWG(a)/EWG(c) Po-4/Pd-4/Pe-5/Pq-4/Pac-4/Pg-4/Pae-2/P1-4 AFMD(c)/AFWL/SSD/AFTC(a)/BSD/AFETR/AFTC(b)/ESD(1)/Pb-4 TT/GW

ACCESSION NR: AP4045831 S/0085/63/000/012/0030/0031

AUTHOR: Levantovskiy, V.

TITLE: Orbits to Mars and Venus

SOURCE: Kry*l'ya rodiny*, no. 12, 1963, 30-31

TOPIC TAGS: space flight, interplanetary flight, astronautics, astronavigation, Mars, Venus, interplanetary orbit, Mars-1

ABSTRACT: This is a popular article about planetary exploration using an Automatic Interplanetary Station. The minimal initial velocities for flights to Mars and Venus are given and the cotangential elliptic orbit for such flights is described. The effect of a greater initial velocity on flight duration is shown, as well as the times required in specific cases. After pointing out that favorable times for such expeditions occur periodically, it is mentioned that the launch date for Mars-1 was so chosen that little more than the theoretical minimum velocity was required. As the capsule passes earth on the return leg, information stored magnetically when it was near Mars can be transmitted at short range to Earth. The advantages of unmanned vehicles are then listed, especially in relation to exploration of very distant planets and those where landing would be impractical.

Card 1/2

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ACCESSION NR: AP4045831

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Results of the Mars-1 expedition are then listed: traveled 19.5 x 10^6km by May 17, 1963 and 450 x 10^6km relative to the sun; recorded changes in radiation belts around the Earth, finding that cosmic ray intensity there was twice what it was in 1959; noted ionized gas streams in interplanetary space emanating from the sun (solar wind); measured the magnetic field intensity in space; cut through the Taurid meteor shower recording one impact every two minutes, at 6,000 to 40,000 km; discovered a previously unknown meteor stream at 20 x 10^6km. Such exploration by unmanned vehicles will remain useful, it is concluded, even after manned exploration commences because of physical conditions unfavorable to man on many planets. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: SV

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MUCHNIKOV, V.M.; LEVANTOVSKIY, V.I., nauchnyy redaktor; TUMARKIN, D.M., redaktor; DAKHNOV, V.S., tekhnicheskiy redaktor; CHEBYSHEVA, Ye.A., tekhnicheskiy redaktor

[Some methods of calculating vibrations of elastic systems under a moving load] Nekotorye metody rascheta uprugikh sistem na kolebaniia pri podvizhnoi nagruzke. Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 130 p. [Microfilm] (MLRA 7:10)
(Strains and stresses) (Vibrations)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V.I.

FERRI, A.; SHTEYNBERG, R.I. [translator]; LEVANTOVSKIY, V.I., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor.

[Aerodynamics of supersonic flow] Aerodinamika sverkhzvukovykh techenii. Perevod s angliiskogo R.I.Shteinberga. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1953. 463 p.
(Aerodynamics, Supersonic) (MLRA 7:8)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

VELIKANOV, M.A.; MINSKIY, Ye.M., redaktor; LEVANTOVSKIY, V.I., redaktor; GAVRILOV, S.S., tekhnicheskiy redaktor.

[The dynamics of flow in stream beds] Dinamika ruslovykh potokov. Vol.1. [The structure of steams] Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1954. 323 p.

(Hydraulics) (MLRA 8:1)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LOYTSYANSKIY, L.G.; LUR'YE, A.I.; LEVANTOVSKIY, V.I., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor.

[Course in theoretical mechanics] Kurs teoreticheskoi mekhaniki. Vol. 1. [Statics and kinematics] Statika i kinematika. Izd.5.,perer. Moskva, Gos. izd-vo tekhniko-teoret.lit-ry.1954. 379 p. (MLRA 8:1)
(Statics) (Kinematics)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MESHCHERSKIY, Ivan Vsevolodovich; LEVANTOVSKIY, V.I., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor; LUR'YE, A.I., redaktor.

[Collection of problems in theoretical mechanics] Sbornik zadach po teoreticheskoi mekhanike. Pod red. A.I.Lur'e. Izd. 20. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1954. 384 p.
(Mechanics--Problems, exercises, etc.) (MLRA 7:8)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

BULGAKOV, Boris Vladimirovich, 1900-1952; LEVANTOVSKIY, V.I., redaktor; RIZ, P.M., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[Vibrations] Kolebaniia. Moskva, Gos. izd-vo tekhniko-teoreticheskoi lit-ry, 1954. 891 p.
(Vibrations) (MLRA 8:3)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

CHETAYEV, Nikolay Gur'yevich; LEVANTOVSKIY, V.I., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor

[Stability of motion] Ustoichivost' dvizheniia. Izd. 2-e, ispr. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1955. 207 p.
(Stability) (Motion) (MLRA 9:2)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

KOLESNIKOV, Konstantin Sergeyevich; LEVANTOVSKIY, V.I., redaktor; GAVRILOV, S.S., tekhnicheskiy redaktor

[Shimmy in automobile front wheels] Avtokolebaniia upravliaemykh koles avtomobilia. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1955. 238 p. (MLRA 9:2)

(Vibrations) (Automobiles--Wheels)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

ARTOBOLEVSKIY, Ivan Ivanovich; ZINOV'YEV, Vyacheslav Andreyevich; KUKL'-SHTEYN, Boris Vital'yevich; LEVANTOVSKIY, V.I., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor

[Problems in the theory of mechanisms and machines] Sbornik zadach po teorii mekhanizmov i mashin. Izd. 3-e, perer. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1955. 243 p. (Mechanical engineering) (MLRA 9:2)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

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BULGAKOV, Boris Vladimirovich; LEVANTOVSKIY, V.I., redaktor; MURASHOVA, N. Ya., tekhnicheskiy redaktor

[Applied theory of gyroscopes] Prikladnaia teoriia giroskopov. Izd. 2-e, Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1955. 355 p. (Gyroscope) (MLRA 8:10)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LOYTSYANSKIY, L.G.; LUR'YE, A.I.; LEVANTOVSKIY, V.I., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor

[Course in theoretical mechanics] Kurs teoreticheskoi mekhaniki. Moskva, Gos.izd-vo tekhniko-teoret.lit-ry, Vol.1. [Statics and kinematics] Statika i kinematika. Izd. 6-oe. 1955. 379 p. (MLRA 9:2)

(Statics) Kinematics)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LOYTSYANSKIY, L.G.; LUR'YE, A.I.; LEVANTOVSKIY, V.I., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor.

[A course in theoretical mechanics] Kurs teoreticheskoi mekhaniki. Vol.2. [Dynamics] Dinamika. Izd. 5-e, perer. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry. 1955. 595 p. (MIRA 8:4)
(Dynamics)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

SHTERNFEL'D, Ario Abramovich; LEVANTOVSKIY, V.I., redaktor; NEGRIMOVSKAYA, R.A., tekhnicheskiy redaktor

[Artificial earth satellites] Iskusstvennye sputniki zemli. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 179 p. (Artificial satellites) (MLRA 10:3)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MERKIN, David Rakhmil'yevich; LEVANTOVSKIY, V.I., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor.

[Gyroscopic systems] Giroskopicheskie sistemy. Moskva, Gos. izd-vo tekhniko-teoreticheskoi lit-ry, 1956. 294 p. (MLRA 9:5)
(Gyroscope)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MERKIN, David Rakhmil'yevich, LEVANTOVSKIY, V.I., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor.

[Gyroscopic systems] Giroskopicheskie sistemy. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1956. 299 p. [MLRA 9:6]
(Gyroscope)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MALKIN, Ioel' Gil'yevich; LEVANTOVSKIY, V.I., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[Problems in the theory of nonlinear oscillations] Nekotorye zadachi teorii nelineinykh kolebanii. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 491 p. (MLRA 9:8)

(Vibration) (Differential equations)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

PHASE I BOOK EXPLOITATION 340

Levantovskiy, Vladimir Isaakovich.

Rasskaz ob iskusstvennykh sputnikakh (The Story of Artificial Satellites) Moscow, Gostekhizdat, 1957, 95 p. 200,000 copies printed.

Eds.: Rakhlin, I. Ye.; Tech. ed.: Brudno, K. F.

PURPOSE: This book is published for the purpose of providing the public with information regarding artificial earth satellites.

COVERAGE: The author attempts to answer, in simple terms, some of the many questions laymen are likely to ask about artificial earth satellites, such as: What is an artificial satellite? How does it differ from other flying bodies? Since it has no engine, why does it not fall to the earth? How is it placed in orbit? How is it constructed? What is its use? What is its future? etc. For more technical explanations, the reader is referred to the scientific literature, particularly A. A. Shternfel'd's book "Artificial Earth Satellites", 1956. In the

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last section, the author recommends: Vasil'yev, M. V., "Journey Into Space", 1955; Kaznevskiy, V. P., "Scouts of Interplanetary Space", 1957; Pobedonostsev, Yu. A., "Artificial Earth Satellite", 1957; Shternfel'd, A. A., "Flight Into Space", 1949; Shternfel'd, A. A. "From Artificial Satellites to Interplanetary Flight", 1957; Shternfel'd, A. A., "Artificial Satellites", 1957. To indicate the scope of the book, the captions of the 29 figures it contains are listed below, following the Table of Contents. The book contains 9 Soviet references.

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Fig. 29. Take-off from satellite by means of a "space glider" 88

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LEVANTOVSKIY, V.I.

LOKK, A.D. [Locke, Arthur S.] KOREMEV, G.V. [translator]; LEVANTOVSKIY, V.I., red.; GAVRILOV, S.S., tekhn.red.

[Guidance. Translated from the English] Upravlenie snaryadami. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1957. 775 p. (Guided missles) (MIRA 11:5)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

AUTHOR: Levantovskiy, V. (Moscow) 47-6-32/37

TITLE: The Book Could be Better (Kniga mogla by byt' luchshe) F. Zigel', "The Artificial Earth Satellite" (F. Zigel', Iskustvennyy sputnik zemli)

PERIODICAL: Fizika v Shkole, 1957, # 6, pp 86 - 88 (USSR)

ABSTRACT: The article represents a review of the book "Iskustvennyy Sputnik Zemli" which is the first one published in the USSR dealing with the subject of artificial satellites. The book contains a considerable number of mistakes and inaccuracies likely to mislead the reader. The question of utilizing satellites as "cosmic stations" for flights to the Moon and planets is hardly mentioned in the book.

There are other points of criticism, such as the starting speed of the rocket from the Earth to the Moon, and the effects of cosmic rays. The critic also points to several editorial mistakes.

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KAPLAN, Samuil Aronovich, [illegible], V.[illegible], red.; Y[illegible], Ye.A., tekhn. red.

[How to see, hear, and photograph artificial earth satellites] Kak uvidet', uslyshat' i sfotografirovat' iskusstvennye sputniki zemli. Moskva, Gos. izd-vo fiziko-matematicheskoi lit-ry, 1958. 78 p. (MIRA 11:9)

(Artificial satellites)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

SHTERNFEL'D, Ario Abramovich, Laureat Mezhdunarodnoy pooshchritel'noy premii po astronavtike; LEVANTOVSKIY, V.I., red.; FEL'DMAN, G.I., red.; AKHLAMOV, S.N., tekhn. red.

[Artificial satellites] Iskusstvennye sputniki. Izd.2., perer. i dop. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1958. 295 p. (MIRA 14:10)

(Artificial satellites)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

BAT', Moisey Iosifovich; KEL'ZON, Anatoliy Saulovich; SOROKOV, Solemon Abramovich; LEVANTOVSKIY, V.I., red.; AKHLAMOV, S.N., tekhn.red.

[Collection of problems in theoretical mechanics; for technical schools] Sbornik zadach po teoreticheskoi mekhanike; dlia tekhnikumov. Pod red. A.S.Kel'zona. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1958. 320 p. (MIRA 12:2)
(Mechanics--Problems, exercises, etc.)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MESHCHERSKIY, I.V.; LUR'YE, A.I., red.; LEVANTOVSKIY, V.I., red.; YERMAKOVA, Ye.A., tekhn.red.

[Collection of problems in theoretical mechanics] Sbornik zadach po teoreticheskoi mekhanike. Pod red. A.I. Lur'e. Izd. 24. Moskva, Gos. izd-vo fiziko-matematicheskoi lit-ry, 1958. 384 p. (MIRA 12:1)
(Mechanics--Problems, exercises, etc.)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

TARG, Semen Mikhaylovich; LEVANTOVSKIY, V.I., red.; KRYUCHKOVA, V.N., tekhn.red.

[Short course in theoretical mechanics] Kratkii kurs teoreticheskoi mekhaniki. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1958. 400 p. (Mechanics) (MIRA 12:4)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

BABAKOV, Ivan Mikhaylovich; LEVANTOVSKIY, V.I., red.; BRUDNO, K.F., tekhn. red.

[Theory of vibration] Teoriia kolebanii. Moskva, Gos.izd-vo tekhniko-teoret. lit-ry, 1958. 628 p. (MIRA 11:3)
(Vibration)

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3(1); 29(0) PHASE I BOOK EXPLOITATION SOV/2539

Levantovskiy, Vladimir Isaakovich, Vladimir Alekseyevich Leshkovtsev, and Il'ya Yevgen'yevich Rakhlin

Sovetskaya raketa issleduyet kosmos (The Soviet Rocket Investigates the Cosmos) Moscow, Fizmatgiz, 1959. 127 p. 150,000 copies printed.

Eds.: K. P. Gurov and L. V. Samonenko; Tech. Ed.: K. F. Brudno.

PURPOSE: This booklet is intended for the general reader interested in rocket and satellite extraterrestrial exploration.

COVERAGE: Though intended for the layman this booklet contains much of interest to the space technologist and geophysicist. It provides detailed information on the technology and theory of Russian satellites and rockets, and on the structure, composition, and phenomena of outer space. Soviet scientists state that Soviet rockets are not only able to carry very large payloads into space at the greatest speeds, but that they possess highly accurate guidance systems as well. The

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authors report that the Soviet cosmic rocket's flight was pre-controlled (preset) to a distance of 500,000 km by a radio system operating at 183.6 megacycles. In order to follow the rocket's progress a method [not further identified by the author] was developed to increase the rocket's visibility at great distances. To allow visual observations at distances up to 500,000 km the rocket was equipped to discharge an atomic sodium vapor cloud which could be seen for a 1-2 minute period. The dispersion and evaporation was effected through the combustion of a thermite mixture. The thermite was ignited by a small device governed by a quartz clock. This raised the temperature to 3,500°C. On January 3, 1959 at $3^h\ 56^m\ 20^s$ Moscow time, when the cosmic rocket was at a distance of 113,000 km, an artificial comet with sodium vapor clouds about 100 km wide appeared in the sky. The rocket was best observed from the southern parts of the USSR. Information obtained from the rocket disproves previously held ideas on the nature of the Earth's magnetic field. It appears that the basic sources of the Earth's magnetic field are powerful electrical currents flowing in the Earth's highly conductive liquid core. If this hypothesis is correct, then it follows that only those planets with central liquid cores can have permanent

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magnetic fields. Studies conducted with rockets and satellites have also shown that disturbances in the Earth's magnetic field are caused by strong currents flowing in the ionosphere. The booklet refers to V. A. Yegorov's article, O nekotorykh zadachakh dinamiki poleta k Lune [Some Problems of the Dynamics of Flight to the Moon] in Uspekhi fizicheskikh nauk, Vol. LXIII, Nr 1, 1957. This article summarizes the mathematical studies conducted by the Institute of Mathematics AN SSSR (February 1956) on various possible trajectories for flights to and around the Moon. The technical characteristics of all artificial satellites, both Soviet and American, launched up to March 1, 1959, and the instruments carried by the three Sputniks and the Soviet cosmic rocket are listed in several tables. No references are given.

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

PEREL'MAN, Yakov Isidorovich; SHTAYERMAN, I.Ya., prof., red.; LEVANTOVSKIY, V.I., red.; KRYUCHKOVA, V.N., tekhn.red.

[Mechanics made interesting] Zanimatel'naia mekhanika. Izd.7. Pod red. I.IA. Shtaermana. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 183 p. (MIRA 13:2)

(Mechanics)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

24 (0)

CHICOM/32-59-37-12/29

AUTHOR: V. Levantovskiy, Associate Doctor of Science of Physics and Mathematics

TITLE: First Flight Around the Moon

PERIODICAL: K'o Hsüeh Hsin Wen, 1959, Nr 37, p 10

ABSTRACT: This is a translation of an article released by the Information Office of the Soviet Embassy dealing with the third Soviet space rocket.

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, Vladimir Isaakovich

The Rocket: Means of Space Flight. New York, USJPRS, 1960.
29 p. Illus., diagrs. (JPRS: 5686)
Translated from the original Russian: Raketa; Sredstvo Poleta V Kosmos, Chapter One of Raketoy K Lune, Moscow, 1960.
Bibliographical Footnotes.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V. DMITRI ISAAKOVICH

Rocket to the moon. Prepared by Liaison Office Technical Information Center, MCLTD. Wright--Patterson Air Force Base, Ohio, 1960.

V. Illus., diagrams. (Its: MCL-879/1 2 3 4)

Translated from the original Russian: Raketoy k lune, Moscow, 1960.
Includes bibliographical references.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

PHASE I BOOK EXPLOITATION SOV/3863

Levantovskiy, Vladimir Isaakovich

Raketoy k lune (To the Moon by Rocket) Moscow, Fizmatgiz, 1960. 396 p. 15,000 copies printed.

Ed.: I. Ye. Rakhlin; Tech. Ed.: S.S. Gavrilov.

PURPOSE: This book is intended for the reader with some background in space technology.

COVERAGE: The book treats problems in space technology, particularly those involved in lunar exploration. This work discusses: rocket motion, future developments in rocketry (ideas for utilizing atomic energy, ion rockets, etc.); the elements of celestial mechanics necessary for understanding the laws of rocket motion in cosmic space and the methods of calculating the trajectories of lunar flights; types of trajectories producing lunar impacts, flight around the moon, etc.; methods of launching an artificial

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moon satellite and ideas for its utilization; various problems associated with lunar flights of automatically controlled as well as of manned space craft (take-off from the earth, use of an interplanetary station, space navigation); physical conditions on the moon and methods for their investigation; outlook for space research in the immediate future (in particular, utilization of artificial planets) and problems of manned exploration of the solar system. Considerable information is presented on past American and Russian satellites and space probes as well as advanced concepts for lunar and interplanetary spacecraft. There are 107 references divided into the following categories: general problems of astronautics and rocket technology, Soviet space rockets - 54 Soviet references; artificial earth satellites - 16 Soviet references; flights to the moon - 8 Soviet references; nature of the moon - 6 Soviet references; foreign periodicals - 17 English and 2 German; translations into Russian and abstracts (4 references).

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

POGORELOV, Dmitriy Alekseyevich; LEVANTOVSKIY, V.I., red.; YEMAKOVA, Ye.A., tekhn. red.

[Theory of Kepler motions of flying crafts] Teoriia keplerovykh dvizhenii letatel'nykh apparatov. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1961. 106 p. (MIRA 14:11)

(Space flight)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MESHCHERSKIY, Ivan Vsevolodovich; LUR'YE, A.I., red.; LEVANTOVSKIY, V.I., red.; BRUDNO, K.F., tekhn. red.

[Collected problems in theoretical mechanics] Sbornik zadach po teoreticheskoi mekhanike. Pod red. A.I.Lur'e. Izd.27. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 384 p. (MIRA 15:2)

(Mechanics, Analytic—Problems, exercies, etc.)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V.

In space with a solar sail. Av. i kosm. 45 no.11:26-31 '62. (MIRA 15:11)

(Space vehicles—Propulsion systems)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, Vladimir Isaakovich; SHUSTOVA, I.B., red.; ATROSHCHENKO, L.Ye., tekhn. red.

[Gravity, weightlessness, overload] Tiazhest', nevesomost', peregruzka. Moskva, Izd-vo "Znanie," 1964. 94 p. (Narodnyi universitet kul'tury: Estestvennonauchnyi fakul'tet, no.3)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

MESHCHERSKIY, Ivan Vsevolodovich; LUR'YE, A.I., red.; LEVANTOVSKIY, V.I., red.

[Collection of problems on theoretical mechanics] Sbornik zadach po teoreticheskoi mekhanike. Izd.29. stereotipnoe Moskva, Izd-vo "Nauka," 1964. 384 p. (MIRA 17:12)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

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EWG(v)/EWG(c) Po-4/Pd-1/Pe-5/Pq-4/Pac-4/Pae-2/Pi-4 IT/GW
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Levantovskiy, Vladimir Isaakovich

Routes to the Moon and planets of the solar system (Puti k Lune i planetam solnechnoy sistemy) Moscow, Voyenizdat M-va obor. SSSR, 1965. 205 p. illus., biblio., index. 9000 copies printed.

TOPIC TAGS: lunar expedition, space flight mechanics, interplanetary flight, propulsion system, lunar landing technique

PURPOSE AND COVERAGE: This book is intended for a wide range of readers interested in the theory of space flight. It may also be used by individuals engaged in rocket and space technology. Principles underlying the theory of flying automatic stations are manned spacecraft to the Moon and the planets of the solar system are presented. Lunar and interplanetary flights are discussed from the point of view of flight mechanics, and there is no mention of such flight aspects as spacecraft guidance, radio communications, space medicine, and space biology. Special attention is given to the characteristics of space trajectories, energy consumption required to carry out various space operations, and to the weight characteristics of

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rockets and spacecraft. Not included in this discussion is the important theory on spacecraft rotation relative to the center of mass. There are 54 figures, 4 tables and 127 references, of which 45 are Soviet.

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SUB CODE: SV SUBMITTED: 25Mar65 NO REF SOV: 029

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APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANTOVSKIY, V.I.

Routes of lunar spaceships. Zem. i vsel. 1 no.1:29-32 Ja-F '65.
(MIRA 18:7)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

24(4)

[illegible]: Levanyuk, A. P. [illegible]

TITLE: On the Theory of Light Scattering in the Vicinity [illegible] Points of the Phase Transition of the Second [illegible] (A teorii rassoyaniya svata vblizi toeneg [illegible] vtorogo roda)

[illegible]: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 19[illegible], Vol [illegible], Nr 3, pp 610-61[illegible] ([illegible])

[illegible]: In an earlier paper the author, in collaboration with V. L. Ginzburg (Ref 1), investigated the intensity [illegible] fluctuating light scattering in phase transition [illegible] second kind on the basis of the Boltzmann [illegible]. In this case, scattering consists of [illegible] part with fluctuations [illegible] which is connected with fluctuations [illegible]. In the present paper the author deals further with [illegible] and derives formulae for the intensity [illegible] near the transition points on the basis of the [illegible] expression for fluctuations of the parameter [illegible] phase transition of the second kind (cf. Ref 7).

[illegible]

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

On the Theory of Light Scattering in the Vicinity of the Points of the Phase Transition of the Second Kind SOV/56-36-1-25/71

In the following, the author uses the formulae obtained for the purpose of determining the minimum width of the temperature region near the transition point at which the usual macroscopic theory of phase transition of the second kind supplies no information. Finally, the formulae are used for the purpose of verifying the calculations published by reference 1.
In conclusion, the author thanks Professor V. L. Ginzburg for suggesting the subject and for his valuable discussions. There are 9 references, 7 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences, USSR)

SUBMITTED: July 8, 1958

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

21(0),24(0) PHASE I BOOK EXPLOITATION SOV/

Akademiya nauk SSSR. Fizicheskiy institut

Issledovaniya po eksperimental'noy i teoreticheskoy fizike; [sbornik] (Studies on Experimental and Theoretical Physics; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 304 p. Errata slip inserted. 2,300 copies printed.

Ed.: I. L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; Eds. of Publishing House: A. L. Chernyak and V. G. Berkgaut. Tech. Ed.: Yu. V. Kylina; Commission for Publishing the Collection in Memory of Grigoriya Samuilovich Landsberg: I. Ye. Tamm (Chairman), Academician; M. A. Leontovich, Academician; P. A. Bazhulin, Doctor of Physical and Mathematical Sciences; S. L. Mandel'shtam, Doctor of Physical and Mathematical Sciences; I. L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; P. S. Landsberg-Baryshanskaya, Candidate of Physical and Mathematical Sciences; and G. P. Motulevich (Secretary), Candidate of Physical and Mathematical Sciences.

PURPOSE: This book is intended for physicists and researchers engaged in the study of electromagnetic radiations and their role in investigating the structure and composition of materials.

COVERAGE: The collection contains 30 articles which review investigations in spectroscopy, sonics, molecular optics, semiconductor physics, nuclear physics, and other branches of physics. The introductory chapter gives a biographical profile of G. S. Landsberg, Professor and Head of the Department of Optics of the Division of Physical Technology at Moscow University, and reviews his work in Rayleigh scattering, combat gases, spectral analysis of metals, etc. No personalities are mentioned. References accompany each article.

Bazhulin, P. A., V. I. Malyshev, and M. M. Sushchinskiy. The Work of G. S. Landsberg in the Field of Molecular Spectroscopy 17

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

GINZBURG, V.L.; LEVANYUK, A.P.

Roman scattering of light near phase transition points of the second kind. Zhur. eksp. i teor. fiz. 39 no. 1:192-196 Jl '60. (MIRA 13:12)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR.
(Light--Scattering)

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L 18386-63 EWP(q)/EWT(m)/BDS AFFTC JD
ACCESSION NR: AP3003868 S/0181/63/005/007/1776/1782

57
52

AUTHOR: Levanyuk, A. P.

TITLE: Theory of phase transitions of the second kind

SOURCE: Fizika tverdogo tela, v. 5, no. 7, 1963, 1776-1782

TOPIC TAGS: phenomenological theory, phase transition, compressibility, thermal capacity

ABSTRACT: The author proposes a phenomenological theory for phase transition of a second type. This theory differs in a number of points from the theory of L. D. Landau (L. D. Landau and Ye. M. Lifshits, Statisticheskaya fizika, gl. 14, Gostekhizdat, M., 1951). The differences lie chiefly in the fact that during determination of temperature dependence of thermal capacity and compressibility in a system the inhomogeneous fluctuations of the characteristic parameter of a transition are here determined three-dimensionally. The results thus obtained are qualitatively in agreement with experiment, and they define in particular such effects as increase of thermal capacity and compressibility in the symmetrical phase as the point of transition is approached. As shown by a determination

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ACCESSION NR: AP3003868

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made for the $\alpha \rightleftarrows \beta$ transition in quartz, errors associated with the approximation adopted are of the same order as the computed values. A qualitative comparison is nevertheless made between the theoretical values and experimental data for the thermal capacity of quartz near the inversion point. The results are shown in Fig. 1 (see Enclosure 1). It is seen that (with a proper choice of numerical values for coefficients in the theoretical computations) the experimental points lie close to the theoretical curve. "The author expresses deep thanks to V. L. Ginzburg, L. V. Keldysh, and I. A. Yakovlev for valuable discussions relative to this problem." Orig. art. has: 1 figure and 22 formulas.

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

SUBMITTED: 02Jan63 DATE ACQ: 15Aug63 ENCL: 01

SUB CODE: PH NO REF SOV: 009 OTHER: 003

Card 2/2

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L 57566-65 EWT(1)/EPA(s)-2/EWT(m)/EWP(j)/EEC(t) Pc-4/Pr-4/Pt-7/Pl-4 IJP(c)
GG/BM

ACCESSION NR: AP5016133 UR/0048/65/029/006/0978/0981

56
52
B

AUTHOR: Minayeva, K.A.; Levanyuk, A.P.

TITLE: Ultrasonic absorption near the Curie point in triglycine sulfate crystals /Report, 4th All-Union Conference on Ferroelectricity held in Rostov-on-the-Don 12-18 Sept 1964/

SOURCE: AN SSSR. Izvestiya.Ser.fizicheskaya,v.29, no.6, 1965, 978-981

TOPIC TAGS: ferroelectric crystal, triglycine sulfate, ultrasound absorption, phase transition, relaxation time

ABSTRACT: The authors have measured the absorption of 5, 10 and 15 megacycle/sec ultrasound in 2 x 2 x 2 cm triglycine sulfate crystals at temperatures from 48 to 50°C. The ultrasound was applied in 1.5 microsec pulses and traversed the crystal parallel to the Z-axis, which is perpendicular to the ferroelectric axis (Y). The temperature was controlled to within 0.01°C. The absorption reached a sharp maximum at the Curie point (49.0°C) and increased rapidly with increasing frequency. In the ferroelectric phase the absorption (compared with

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ACCESSION NR: AP5016133

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its value in the paraelectric phase far from the Curie point) was still appreciable at 48.0°. In the paraelectric phase the absorption fell off much more rapidly with increasing distance from the Curie point, but at the higher frequencies it was still considerable at 49.2°C. Application of a dc electric field (up to 1 kV/cm) led to a decrease of the absorption in the ferroelectric phase and to an increase of the absorption in the paraelectric phase. These results are discussed at some length. The absorption in the ferroelectric phase is ascribed to polarization relaxation as discussed by L.D.Landau and I. M.Khalatnikov (Dokl.AN SSSR 96,469,1954) (the polarization is coupled to the sonic field by the piezoelectric effect), and to some unknown effect involving the domains. The relaxation time derived from the experimental data with the aid of this theory was in agreement with the findings of E.I.O'Brien and T.A.Litovitz (J.Appl.Phys.35,180,1964). This theory is not applicable in the paraelectric phase because the piezoelectric coefficient coupling elastic deformation to polarization along the ferroelectric axis vanishes for triglycine sulfate in the paraelectric phase. It was partly for this reason that triglycine sulfate was selected for investigation. The sound waves, however, affect

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the relaxation time of the thermal fluctuations of the polarization through the electrostriction effect. One of the authors has calculated the absorption due to this mechanism. This calculation is described in words but is not reproduced. The calculation involved adding a term proportional to the square of the polarization gradient to the expression for the free energy and taking account of the stochastic forces giving rise to polarization fluctuations. The result of this calculation is said to be in reasonable agreement with the observations. "The authors are grateful to I.A.Yakovlev, V.A.Koptsik and B.A.Strukov for their interest in the work and for discussing the results, and to A.F.Solov'ev for assistance in adjusting the apparatus."
Orig.art.has: 4 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: SS

NR REF SOV: 006 OTHER: 002

Card 3/3

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

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L 57030-65 EWT(1)/EPA(s)-2/EWT(m)/EEC(t) Pt-7/Pl-4 IJP(c) JD/JW/GG
ACCESSION NR: AP5016108 UR/0048/65/029/006/0879/0881

AUTHOR: Levanyuk, A.P.

TITLE: Towards a phenomenclogical theory of anomalies of thermodynamic parameters near second order transition points in ferroelectrics /Report, 4th All-Union Conf. on Ferroelectricity, in Rostov-on-the-Don 12-18 Sept 1964/

SOURCE: AN SSSR. Izvestiya. Ser.fizicheskaya, v.29, no.6, 1965, 879-881

TOPIC TAGS: ferroelectricity, phase transformation, statistical thermodynamics, heat capacity

ABSTRACT: The phenomenological theories of ferroelectrics of V.L. Ginsburg (Zh.eksp.i teor.fiz.15,739,1945; 19,36,1949) and A.F.Devonshire (Phil.Mag.40,1040,1949; Adv.Phys.3,85,1954) are based on Landau's theory of second order transitions and do not account for the peak of the heat capacity curve at the transition point, which is observed in addition to the predicted discontinuity. This deficiency is

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ACCESSION NR: AP5016108

ascribed to the neglect in Landau's theory of the long wavelength fluctuations of the characteristic parameter of the transition (here the polarization). The author has previously generalized Landau's theory to take these fluctuations into account in the case of a scalar transition parameter (Fiz.tverdogo tela 5,1776,1963). In the present paper he adapts this theory to the case of ferroelectrics and calculates the heat capacity in the vicinity of the transition point. It is found that the heat capacity is approximately proportional to $\log(T - T_0)$, where T is the temperature and T_0 is the transition temperature. The calculated heat capacity agrees in order of magnitude with experimental findings of B.A.Strukov (Fiz.tverdogo tela 6,2862,1964). In the case of ferroelectrics with two or three ferroelectric axes, the heat capacity is approximately proportional to $(T - T_0)^{-1/2}$. Orig.art.has: 5 formulas.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im.M.V.Lomonosova (Physics Dept., Moscow State University)

SUBMITTED: 00 ENCL: 00 SUB CODE: SS, EM

NR REF SOV: 007 OTHER: 001

Card 2/2

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L 12790-66 EWT(1)/EPF(n)-2/ETC(m) IJP(c) WW

ACC NR: AP5026624 44,55 SOURCE CODE: UR/0056/65/049/004/1304/1312

AUTHOR: Levanyuk, A. P. 44,55

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet) B

TITLE: Contribution to the phenomenological theory of sound absorption near second order phase transition points

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 4, 1965, 1304-1312

TOPIC TAGS: second order phase transition, sound absorption, thermal acoustic effect, acoustic speed

ABSTRACT: The author investigates the interaction between a sound wave and the thermal fluctuations of a certain intrinsic parameter of a system, and analyzes the sound absorption brought about by this interaction. The analysis is confined to the absorption anomaly near second-order phase transitions, although the calculations can be used also for other problems, such as the propagation of sound in a liquid. The intrinsic parameter chosen is a characteristic transition parameter with meaning of an internal deformation. The problem is transformed to an investigation of the propagation of sound in a medium with random in-

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ACC NR: AP5026624

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homogeneities having known statistical properties. It is shown that intensification of the fluctuations of the intrinsic parameter near the transition point leads to an increase in the sound velocity and to an increase in the absorption coefficient in both the asymmetric and symmetric phases. The frequency dependence of the velocity and absorption coefficient is investigated. Author thanks V. L. Ginzburg for suggesting the topic and valuable discussions. Orig. art. has: 1 figure and 31 formulas.

44,55

SUB CODE: 20/ SUBM DATE: 10May65/ NR REF SOV: 012/ OTH REF: 002

HW

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANYUK, P.P.

Preparation of steel surfaces of equipment to the application of protective coatings. Khim.volok. no.2:64 '62. (MIRA 15:4)

1. Kamenskiy kombinat iskusstvennogo volokna.
(Filters and filtration) (Protective coatings)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANYUK, S.P.

Changes in the oxygen saturation of the arterial blood during stomach resection. Vrach.delo no.2:191-192 F '60. (MIRA 13:6)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. V.I. Akimov) sanitarno-gigiyenicheskogo i pediatricheskogo fakul'tetov L'vovskogo meditsinskogo instituta.
(BLOOD--OXYGEN CONTENT) (STOMACH--SURGERY)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420019-5

LEVANYUK, S.R.

Absorption of radioactive phosphorus in the stomach. Vrach.delo no.8 819-821 Ag '58 (MIRA 11:8)

1. Kafedra fakul'tetskoy khirurgii sanitarno-gigiyenicheskogo i pediatricheskogo fakul'tetov (zav. - prof. V.I. Akimov) L'vovskogo meditsinskogo instituta.
(STOMACH)

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