

LUTSKIY, A. Ye.; OBUKHOVA, Ye.M.

Changes in the properties of substances in various series of
chemical compounds. Part 2: Series of isogroup compounds.
Zhur.fiz.khim. 35 no.9:1960-1965 '61. (MIRA 14:10)

1. Khar'kovskiy politekhnicheskij institut imeni V.I. Lenina.
(Molecules)
(Chemistry, Physical and theoretical)

40369
S/185/62/007/008/002/008
D234/D308

5.3100
AUTHORS:

Lutskiy, A.Ye., and Mikhaylenko, S.A.

TITLE:

Hydrogen bond and static dielectric constant of organic liquids

PERIODICAL:

Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 8, 1962,
812 - 816

TEXT: In order to obtain a more general idea of the physical meaning of the correlation factor g , the authors investigated over 40 substances including alcohols, phenols, ethers, amines, amides and acids between 16 and 190°C. Measurements were made by the bridge method for substances with strong absorption and by the method of heterodyne beatings for other substances. The results were plotted in the form of $\epsilon(T)$ curves, compared with theoretical curves $\epsilon_{\text{ons}}(T)$ and used for determining $\epsilon_e(T)$ from Frelikh's equation in the Kirkwood approximation. [Abstracter's note: ϵ_e not defined.] Four types of curves and of $\epsilon_e(T)$ dependences were found. The first

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Hydrogen bond and static dielectric ... S/185/62/007/008/002/008
D234/D308

type (nitrobenzene etc., o-nitrophenol etc.) corresponds to Onsager liquids. The second type (cyclohexanol, phenol, etc.) is explained by the authors by the existence of parallel or antiparallel preference orientation of neighboring molecules. The third and fourth type, where g_e remains constant or even increases with temperature, is explained by the existence of different $\overline{\cos \gamma_1}$ for different neighbors. There are 4 figures.

ASSOCIATION: Khar'kovskiy politekhnicheskii institut (Kharkov Polytechnic Institute)

Card 2/2

LUTSKIY, A.Ye.; MIKHAYLENKO, S.A.

Hydrogen bond and physical properties of nitroanilines. Part 2:
Static dielectric constant. Zhur.ob.khim. 32 no.9:3045-3057
S '62. (MIRA 15:9)

1. Khar'kovskiy politekhnicheskii institut.
(Aniline) (Dielectric constants) (Hydrogen bonding)

LUTSKIY, A.Ye.

Criteria for complex formation by molecules. Zhur.ob.khim.
32 no.11:3839-3840 N '62. (MIRA 15:11)

1. Khar'kovskiy politekhnicheskii institut.
(Complex compounds)

LUTSKIY, A. Ye.

Nature of forces in a hydrogen bond. Zhur. ob. khim. 32 no.12:
4099-4101 D '62. (MIRA 16:1)

1. Khar'kovskiy politekhnicheskiy institut.

(Hydrogen bonding)

LUTSKIY, A.Ye.; MIKHAYLENKO, S.A.

Hydrogen bond and the statistical dielectric constant of liquids.
Part 2: Correlation factor and the structure of monobasic carboxylic
acids. Zhur.strukt.khim. 4 no.1:14-17 Ja-F '63. (MIRA 16:2)

1. Khar'kovskiy politekhnicheskii institut imeni V.I. Lenina.
(Acids, Fatty) (Hydrogen bonding) (Dielectric constants)

LUTSKIY, A.Ye.; MIKHAYLENKO, S.A.

Hydrogen bond and the static dielectric constant of liquids.

Part 3: Correlation factor and structure of liquid amides.

Zhur.strukt.khim. 4 no.3:350-353 My-Je '63. (MIRA 16:6)

1. Kharkovskiy politekhnicheskiy institut imeni V.I.Lenina.
(Amides) (Dielectric constants) (Hydrogen bonding)

LUTSKIY, A.Ye.; KOCHERGINA, L.A.; BUGAY, P.M.

Dipole moments of some substituted diphenylamines. Zhur.ob.khim.
33 no.3:985-987 Mr '63. (MIRA 16:3)

1. Khar'kovskiy politekhnicheskii institut imeni V.I. Lenina.
(Diphenylamine—Dipole moments)

LUTSKIY, A.Ye.

Nature of absorption bands in electron spectra of substituted benzenes. Part 1: Criteria for relating the bands to electron passages. Zhur. ob. khim. 33 no.5:1601-1608 My '63.
(MIRA 16:6)

1. Khar'kovskiy politekhnicheskii institut imeni V.I. Lenina.
(Benzene--Absorption spectra)
(Molecular spectra)

LUTSKIY, A.Ye.

Nature of absorption bands in electron spectra of substituted benzenes. Part 2: Classification of absorption bands. Zhur. ob. khim. 33 no.5:1609-1614 My '63. (MIRA 16:6)

1. Khar'kovskiy politekhnicheskii institut imeni V.I. Lenina.
(Benzene—Absorption spectra)
(Molecular spectra)

LUTSKIY, A.Ye.; GOL'BERKOVA, A.S.

Absorption spectra of disubstituted benzenes with similarly oriented functional groups. Part 4: Hydroxy-, methoxy-, and acetoxy-substituted benzenes. Zhur. ob. khim. 33 no.5:1614-1624, My '63. (MIRA 16:6)

1. Khar'kovskiy politekhnicheskoy institut imeni V.I. Lenina.
(Benzene—Absorption spectra)

LUTSKIY, A.Ye.; GOL'BERKOVA, A.S.; BUGAY, P.M.

Absorption spectra of disubstituted benzenes with similarly oriented functional groups. Part 5: Amino- and acetamido-substituted phenol and anisole. Zhur. ob. khim. 33 no.5: 1624-1632 My '63. (MIRA 16:6)

1. Khar'kovskiy politekhnicheskii institut imeni V.I. Lenina.
(Phenol—Absorption spectra)
(Anisole—Absorption spectra)

LUTSKIY, A.Ye.; GOL'BERKOVA, A.S.

Absorption spectra of disubstituted benzenes with similarly oriented functional groups. Part 6: Phthalic acids and their methyl esters. Zhur. ob. khim. 33 no.5:1633-1639 My '63,
(MIRA 16:6)

1. Khar'kovskiy politekhnicheskij institut imeni V.I. Lenina.
(Phthalic acid—Absorption spectra).

LUTSKIY, A.Ye.; DOROFYEV, V.V.; KONDRATENKO, B.P.

Nature of the forces of binding components in molecular organic compounds. Part 1: Molecular compounds with meta-dinitrobenzene and picric acid. Zhur.ob.khim. 33 no.6:1969-1974 Je '63.
(MIRA 16:7)

1. Khar'kovskiy politekhnicheskii institut imeni V.I.Lenina.
(Nitrobenzene) (Picric acid) (Chemical affinity)

LUTSKIY, A.Ye.; SOLDATOVA, A.F.; OBUKHOVA, Ye.M.

Dipole moments of thymol and eugenols and their ethers and esters.
Zhur.ob.khim. 33 no.7:2328-2331 J1 '63. (MIRA 16:8)

1. Khar'kovskiy politekhnicheskii institut imeni V.I.Lenina.
(Thymol--Dipole moments) (Eugenol--Dipole moments)

LUTSKIY, A.Ye.; DOROFYEV, V.V.

Effect of sulfuric acid on the electron spectra of substituted acetophenone. Zhur.ob.khim. 33 no.7:2331-2334 J1 '63.

(MIRA 16:8)

1. Khar'kovskiy politekhnicheskii institut imeni V.I.Lenina.
(Acetophenone--Absorption spectra)

LUTSKIY, A.Ye.; KOCHERGINA, L.A.

Dipole moments of α - and β -monosubstituted naphthalene. Zhur.fiz.khim.
37 no.2:469-463 F '63. (MIRA 16:5)

1. Khar'kovskiy politekhnicheskii institut imeni Lenina.
(Naphthalene—Dipole moments)

S/076/63/037/003/014/020
B101/B215AUTHORS: Lutskiy, A. Ye., Kochergina, L. A., Zadorozhnyy, B. A.

TITLE: Intramolecular hydrogen bonds and dipole moments of organic compounds. X. Carboxyl-substituted and amido-substituted naphtholes

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 3, 1963, 671-674

TEXT: The dipole moments μ_H of the compounds $C_{10}H_6XY$, where X = COOH, COOCH₃, CONH₂, CONHC₆H₅, Y = OH or OCH₃ and of 2-methoxy-3-carbomethoxy-1,4-dihydronaphthalene were measured. The μ_H values in Debyes for various positions of the substituents are the following: 1-COOH, 2-OH 2.45; 1-COOH, 2-OCH₃ 2.92; 1-COOCH₃, 2-OH 2.62; 1-COOCH₃, 2-OCH₃ 2.17; 2-COOCH₃, 1-OH 2.27; 2-COOH, 1-OCH₃ 4.98; 2-COOCH₃, 1-OCH₃ 2.37; 4-COOCH₃, 1-OCH₃ 3.07; 2-COOC₆H₅, 1-OH 2.34; 2-COOC₆H₅, 3-OH 2.52; 3-COOCH₃, 2-OCH₃, 1-H, 4-H 2.19; 2-CONH₂, 3-OH 5.54; 2-CONH₂, 3-OCH₃ 4.72;

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Intramolecular hydrogen bonds and ...

S/076/63/037/003/014/020
B101/B215

2-CONHC₆H₅, 3-OH 5.35; 2-CONHC₆H₅, 3-OCH₃ 4.97. Conclusions: The dipole moments of the compounds studied obey the same rules as observed for compounds with intramolecular H bonds between OH and C=O (or NO₂) groups.

An intramolecular H bond forms in the molecules of all disubstituted compounds with COOH and OCH₃ in ortho position in benzene solution, with the OH group of the carboxyl group acting as proton donor. In the disubstituted derivatives of naphthalene with COOR and OR groups (R = H, CH₃, or C₆H₅), μ_H of the isomers decreases as follows:

$\mu_{1,4} > \mu_{2,3} > \mu_{2,1} > \mu_{1,2}$. There are 4 tables.

ASSOCIATION: Khar'kovskiy politekhnicheskii institut im. V. I. Lenina
(Khar'kov Polytechnic Institute imeni V. I. Lenin)

SUBMITTED: May 7, 1962

Card 2/2

L 12701-63 EPF(c)/EWT(m)/BDS ESD-3 Pr-4 RM/WR/RH
ACCESSION NR: AP3002928 3/0076/63/037/006/1270/1274

AUTHOR: Lutskiy, A. Ye.; Obukhova, Ye. M.; Kondratenko, B. P. 65

TITLE: Molecular dipole moments and intramolecular interaction of functional groups. 2. Disubstituted benzenes with electron-donating functional groups.

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 6, 1963, 1270-1274

TOPIC TAGS: molecular dipole moment, intramolecular interaction, disubstituted benzene, electron-donating functional group, monomethylether, dihydroxybenzene, acetoxybenzene, aminophenol

ABSTRACT: The results of dipole moment measurements of o-, m-, and p-diacetoxybenzenes, monomethylethers of dihydroxybenzenes, acetoxybenzenes, aminophenols, N-acetylaminophenols, N-acetylanisidines, etc. are presented, and the influence of various factors on the dipole moments has been discussed. Orig. art. has: 2 tables.

ASSOCIATION: Politekhnikheskiy institut (Polytechnic Institute)

SUBMITTED: 03May62

DATE ACQ: 16Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 006

OTHER: 008

Card 1/1

LUTSKIY, A.Ye; MALKES, L.Ya.; OBUKHOVA, Ye.M.; TIMCHENKO, A.I.

Dipole moments of molecules and intramolecular reactions
between functional groups. Part 1. Zhur. fiz. khim. 37
no.5:1076-1082 My '63. (MIRA 17:1)

1. Politekhnicheskij institut imeni V.I. Lenina i Vsesoyuznyy
nauchno-issledovatel'skiy institut monokristallov.

LUTSKIY, A.Ye.; SOLON'KO, V.N.

Hydrogen bonding and the specific heat of liquids. Ukr. fiz.
zhur. 9 no.4:459-463 Ap '64. (MIRA 17:8)

1. Khar'kovskiy politekhnicheskii institut.

ACCESSION NR: AP4019523

S/0076/64/038/002/0415/0422

AUTHOR: Lutskiy, A. Ye. (Khar'kov); Solon'ko, V. N. (Khar'kov)

TITLE: Hydrogen bond and ultrasonic propagation rate in liquids
I. Substituted phenols and anisoles

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no.2, 1964, 415-422

TOPIC TAGS: phenolic hydrogen bond, anisole hydrogen bond, anisole, methylphenyl ether, methoxybenzene, aliphatic compound, phenol, diatomic phenol

ABSTRACT: The influence of complex formation in liquids on velocity C of ultrasound and changes in velocity depending on temperatures remain unclarified. Earlier studies covered exclusively aliphatic products. Therefore, the authors chose phenol and its derivatives as the subject of this study. With the aid of an ultrasonic interferometer with quartz radiator and receiver, they measured the C-values at a frequency of 974 kilo cycles in phenol, anisole and their O-, m- and p-nitro-, oxy-, methoxy-, methyl- and chloro derivatives. Using the method of "structural comparison" it was found that complex formation by hydrogen bonds in phenol and its derivatives causes a noticeable acceleration of ultrasonic speed

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ACCESSION NR: AP4019523

(C) in liquids and a noticeable decrease in its thermal coefficient ($\Delta C / \Delta T$). This effect of complex formation can be observed both with the chain association of the monoatomic phenols and, (to a somewhat greater degree) in a spatially branched network of diatomic phenols. A linear change in C with temperature in complex-forming substances assumes the absence of noticeable destruction of complexes in the liquid phase. The application of the Rao rule does not disclose the presence of complex formation and its specific influence on C. The same applies to the comparison of the C values at the same "reduced" temperature in corresponding states. Orig. art. has: 2 figures, 00 formulas, 5 tables.

ASSOCIATION: Politekhnicheskii institut (Polytechnical Institute)

SUBMITTED: 06Mar63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: 011

OTHER: 010

Card 2/2

LUTSKIY, A.Ye.; YAGUPOL'SKIY, L.M.; OBUKHOVA, Ye.M.

Participation of vacant d-orbitals of sulfur in a conjugation system. Part 1: Dipole moments of aryltrifluoromethyl sulfides, sulfoxides, sulfones, and aryltrifluoromethyl ethers. Zhur. ob. khim. 34 no.8:2641-2647 Ag '64. (MIRA 17:9)

1. Khar'kovskiy politekhnicheskii institut im. V.I. Lenina i Institut organicheskoy khimii AN UkrSSR.

LUTSKIY, A.Ye.; MIKHAYLENKO, S.A.

Evaluation of the correlation factor for liquids with hydrogen bonding between molecules. Zhur. fiz. khim. 38 no.6:1414-1420
Je '64. (MIRA 18:3)

1. Khar'kovskiy politekhnicheskii institut imeni Lenina.

LUTSKIY, A.Ye.; SOLON'KO, V.N.

Hydrogen bonding and compressibility of liquids. Part 2.
Zhur. fiz. khim. 38 no.6:1421-1428 Je '64.

(MIRA 18:3)

1. Khar'kovskiy politekhnicheskly institut.

LUTSKIY, A.Ye.; SOLON'KO, V.N.

Hydrogen bonding and propagation rate of ultrasonic waves in liquids.
Part 2. Zhur. fiz. khim. 39 no.3:783-787 Mr '65. (MIRA 18:7)

1. Khar'kovskiy politekhnicheskii institut.

LUTSKIY, A.Ye.

Criteria for the existence of hydrogen bonding from the physical
properties of liquids. Zhur. fiz. khim. 39 no.3:805-807 Mr '65.
(MIRA 18:7)

1. Khar'kovskiy politkhnicheskii institut imeni Lenina.

LUTSKIY, A.Ye.

Certain regularities in the electronic-vibrational spectra
of substituted aromatic hydrocarbons. Part 1. Zhur. fiz.
khim. 39 no.8:1949-1954 Ag '65. (MIRA 18:9)

1. Khar'kovskiy politekhnicheskiy institut.

LUTSKIY, A.Ye.

Once more about criteria for the presence of hydrogen bonds.
Zhur. fiz. khim. 39 no.8:2074-2075 Ag '65. (MIRA 18:9)

LUTSKIY, A.Ye.; ROMODANOV, I.S.; GANYUK, L.N.

Hyperfine splitting on the hydroxyl group proton. Teoret. i
eksper. khim. 1 no.4:540-541 '65. (MIRA 18:10)

1. Khar'kovskiy politekhnicheskii institut.

L 11886-66 EWT(m)/EWP(t)/EWP(b) JD

ACC NR: AP5028022

SOURCE CODE: UR/0386/65/002/008/0391/0395

AUTHOR: Lutskiy, V. N.

ORG: Institute of Radio Engineering and Electronics, Academy of Sciences SSSR (Institut radiotekhniki i elektroniki Akademii nauk SSSR)

TITLE: Features of optical absorption of metallic films in the region where the metal turns into a dielectric ¹⁴

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu (Prilozheniye), v. 2, no. 8, 1965, 391-395

TOPIC TAGS: light absorption, metal film, metal property, conduction band, valence band, dielectric property

ABSTRACT: The author shows that the change of a metal into a dielectric, which is connected with the disappearance of the overlap of the valence and conduction band (at OK), should also be accompanied by singularities of light absorption if the extrema of the overlapping bands occur at different values of the wave vector. Optical transitions from the valence band to the conduction band are considered for a metal such as bismuth, and a relation is established between the thickness of the metal film and the distance between the maximum of the valence band to the Fermi level, or the distance between the extrema of the valence

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L 11886-66

ACC NR: AP5028022

band and the conduction band for films of thickness smaller than the thickness at which the metal turns into a dielectric. The changes occurring in the absorption of a thinner film are discussed, and it is indicated that the study can serve as a check on different assumptions made concerning the dispersion law and the independence of the carrier effective mass of the thickness, by comparing the derived expressions with experimental results. Author is grateful to V. B. Sandomirskiy for an opinion expressed concerning the possible use of the method. Orig. art. has: 2 figures and 3 formulas.

SUB CODE: 20/ SUBM DATE: 08Sep65/ NR REF SOV: 003/ OTH REF: 001

HW
Card

2/2

GULIVETS, N.I.; LUTSKIY, A.Ye.; RADCHENKO, I.V.

X-ray diffraction study of liquids with hydrogen bonds between molecules. Part 1: Formic and acetic acids. Zhur. strukt. khim. 6 no.1:27-31 Ja-F '65. (MIRA 18:12)

1. Dnepropetrovskiy metallurgicheskiy institut i Khar'kovskiy politekhnicheskiy institut. Submitted July 10, 1963.

LUTSKIY, A.Ye.; SOLON'KO, V.N.

Certain regularities in the propagation rate of ultrasonic waves in liquids. Zhur. fiz. khim. 38 no.5:1091-1096 My '64.

Hydrogen bonding and compressibility of liquids. Part 1.
Ibid.:1097-1102 (MIRA 18:12)

1. Khar'kovskiy politekhnicheskiy institut. Submitted Dec. 31, 1962.

LUTSKIY, A.Ye.; LITVINENKO, L.M.; SHUBINA, L.V.; MALKES, L.Ya.; CHESHKO, R.S.;
GOL'BERKOVA, A.S.; KANEVSKAYA, Z.M.

Interaction of substituents through aromatic rings linked
by a bridge group. Zhur.ob.khim. 35 no.12:2083-2090 D '65.
(MIRA 19:1)

1. Khar'kovskiy politekhnicheskii institut im. V.I.Lenina.
Submitted May 28, 1964.

LUTSKIY, A.Ye.; TRET'YAK, Z.A.; BURMISTROV, S.I.

Electronic-vibrational spectra of N- and O-substituted
p-toluene sulfamide and p-toluene sulfonate. Zhur.ob.khim.
35 no.12:2090-2099 D '65. (MIRA 19:1)

1. Khar'kovskiy politekhnicheskii Institut imeni V.I.Lenina.
Submitted April 28, 1964.

LUTSKIY, A.Ye.; SOLDATOVA, A.F.

Intramolecular hydrogen bond and absorption spectra in the ultraviolet. Part 11: Intramolecular hydrogen bonding with a β -type proton acceptor. Zhur.ob.khim. 35 no.12:2099-2105 D '65. (MIRA 19:1)

1. Khar'kovskiy politekhnicheskii institut i Khar'kovskiy farmatsevticheskii institut. Submitted April 28, 1964.

LUTSKIY, A.Ye.; SOLDATOVA, A.F.; VOROSHIN, Ye.M.

Intramolecular hydrogen bonding and absorption spectra in the ultraviolet. Part 12: Intramolecular hydrogen bonding between two electron-donor groups. Zhur.ob.khim. 35 no.12:2106-2111 D '65. (MIRA 19:1)

1. Khar'kovskiy politekhnicheskii institut i Khar'kovskiy farmatsevticheskiy institut. Submitted April 28, 1964.

MIKHAYLENKO, S.A.; LUTSKIY, A.Ye.

Dielectric polarization of certain phenol, anisole, and aniline derivatives on superhigh frequencies. Zhur. fiz. khim. 39 no.6:1498-1500 Je '65. (MIRA 18:11)

1. Khar'kovskiy politekhnicheskii institut imeni Lenina.
Submitted April 12, 1964.

LITSKIY, A.Ye.; ANTROPOVA, L.A.

Certain regularities in the electronic vibration spectra of
substituted aromatic hydrocarbons. Part 2. Zhur. fiz. khim. 39
no.9:2120-2130 S '65. (MIRA 18:10)

1. Khar'kovskiy politekhnicheskij institut.

L 02237-67 EWT(1)/EWT(m)/EWP(j)/I/EWP(k) RM

ACC NR: AR6013711

SOURCE CODE: UR/0058/65/000/010/HD74/HD74

AUTHOR: Lutskiy, A. Ye.; Solon'ko, V. N.; Goncharova, Ye. I.TITLE: The hydrogen bond and the rate of propagation of ultrasound in "non-simple" liquids

SOURCE: Ref. zh. Fizika, Abs. 10Zh494

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20, M., 1964, 29-36

TOPIC TAGS: hydrogen bonding, ultrasonic wave propagation, liquid property, amine, primary aromatic amine

ABSTRACT: Results are presented of measurements of the speed of ultrasound in five liquid amines over a wide range of temperatures. It is shown that there is no stretching with respect to the hydrogen bonds in the liquid state in either aliphatic or cyclic or fatty amines. A noticeably smaller ordering of the structure of the liquid, and consequently a smaller reduction in its free volume than in the case of aromatic amines, takes place upon formation of complexes of molecules as a result of the hydrogen bonds in heterocyclic compounds with the N-H group. Ye. Sheludyankov.
[Translation of abstract]

SUB CODE: 07

Card

1/1

L 10756-67 ENT(1)/ENT(m)/EMP(j)/EMP(k) RM
ACC NR: AR6016453 (N) SOURCE CODE: UR/0124/65/000/012/B036/B036 31

AUTHOR: Lutskiy, A. Ye.; Solon'ko, V. N.; Goncharova, Ye. I.

TITLE: The hydrogen bond and rate of propagation of ultrasonic waves in "non-simple" liquids

SOURCE: Ref. zh. Mekhanika, Abs. 12B243

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20. M., 1964, 29-36

TOPIC TAGS: amine, heterocyclic base compound, primary aliphatic amine

ABSTRACT: Data are given from measurements of the speed of ultrasound in five liquid amines over a wide temperature range. It is shown that there is no hydrogen bond cross-linking in either alicyclic or aliphatic amines in the liquid state. Formation of molecular complexes through hydrogen bonds in heterocyclic compounds with the N-H radical is accompanied by a considerably lower degree of ordering in the structure of the liquid and a consequent lower reduction in its free volume than in the case of aromatic amines. Ye. Sheludyakov. [Translation of abstract]

SUB CODE: 07

LUTSKIY, B., OBBELOVA, M., inzhener-ekonomist.

Revise convertible coefficients. Grazhd.av.13 no.12:31 D '56.
(MLRA 10:2)

1. Nachal'nik Lineyno-eksploatacionnoy remontnoy masterskoy.
(Airplanes--Maintenance and repair)

KOVAL'SKIY, V.V.; LUTSKIY, D.Ya.

Constitutive and adaptive variations in the arginase of the liver of sheep showing different meat productivity. Dokl. AN SSSR 161 no.2:475-478 Mr '65. (MIRA 18:4)

1. Institut geokhimi i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR i Institut fiziologii i biokhimi zhivotnykh Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina. Submitted September 21, 1964.

KOVAL'SKIY, V.V.; LITVINKO, D.Ya.

Synthesis of glutamic acid from α -ketoglutaric acid and ammonium carbonate in liver homogenates of sheep showing different meat productivity and kept under different protein content in rations. Dokl. AN SSSR 163 no.3:758-760 J1 '65. (MIRA 18:7)

1. Institut geokhimi i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR i Institut fiziologii i biokhimi sel'skokhozyaystvennykh zhivotnykh Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina. Submitted September 21, 1964.

KOVAL'SKIY, V.V.; LUTSKIY, P.Ya.

Adaptive modifications of the ornithine cycle in sheep of different meat productivity and with reference to the different protein content in their food rations. Dokl. AN SSSR 163 no.4:1007-1010 Ag '65. (MIRA 18:8)

1. Institut geokhimi i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR i Vsesoyuznyy Institut fiziologii i biokhimi sel'skokhozyaystvennykh zhivotnykh Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina. Submitted December 17, 1964.

TELEGIN, V.G.; PUTSKII, G.N.

Equilibrium of the ammonia synthesis reaction at the pressures
above 1000 atm. Zhur. prikl. khim. 37 no.10:2303-2306 0 '64.
(MIRA 17:11)

KRICHEVSKIY, M.Ya.; LUTSKIY, I.M.; RODOV, G.S.; SHAKHOV, I.T.

Jointing precast reinforced concrete floors in seismic-prone
regions. Izv.AN Turk.SSR no.3:83-86 '55. (MLRA 9:5)

1. Institut antiseysmicheskogo stroitel'stva AN Turkmenskoy SSR.
(Precast concrete construction) (Earthquakes and building)

LUTSKIY, L. N.

USSR/Engineering - Magnesium alloys

Card 1/1 : Pub. 12 - 11/16

Authors : Egorov, L. A.; and Lutskiy, L. N.

Title : The application of magnesium alloys in automobile construction

Periodical : Avt. trakt. prom. 6, 28-30, June 1954

Abstract : An account is given of the application of magnesium alloys for construction of numerous automobile ceaponents together with methods for producing and working magnesium alloys, and an explanation of its use. Table; drawing; illustration.

Institution :

Submitted :

AKSEL'ROD, Solomon Moiseyevich; BERMAN, Mark Mikhaylovich; VINOGRAY, Lazar' Il'ich; GOL'DZAND, Samuil Shlemovich; DUGIN, Yakov Sergeyevich; DULEPOV, Konstantin Vasil'yevich; KALUGA, Iven Ivanovich; LERNER, Yefim L'vovich; LUTSKIY, Moisey Leybovich; PILETSKIY, Vladimir Kirillovich; SADOVNIKOV, Petr Pavlovich; SHLYAMOVICH, Abram Aronovich; VASIL'YEV, B.A., red.; SOBOLEV, Ye.M., tekhn. red.

[Problems of radio engineering and radar]Zadachnik po radiotekhnike i radiolokatsii. [By]S.M.Aksel'rod i dr. Moskva, Gosenergoizdat, 1962. 414 p. (MIRA 15:12)

(Radio) (Radar)

BELOGUB, V.D.; LYMA'K', Ye.A., dots., otv. red.; LUTSKIY, M.S.,
dots., .v. red.; ALYAB'YEV, N.Z., red.

[Buildings with walls of large elements, combine-
manufactured without concrete formwork] Zdania so ste-
nami iz krupnykh elementov bezopalubochnogo kombainovogo
izgotovleniia. Khar'kov, Izd-vo Khar'kovskogo gos. univ.
1964. 115 p. (MIRA 18:1)

LUTSKIY, S.L.

Lutskii, S.L. Ekonomicheskaiia geografiia v Moskovskom universitete. (Moscow, Universitet. Uchenye zapiski, 1940. no. 55, Iubileinaiia seriia, Geografiia. p. 87-110) DL: 60.7868

SO: IC, Soviet Geography, Part I, 1951, uncl.

LUTSKI^Y, S. L.

Ostrov Sakhalin; populiarnyi geograficheskii ocherk. [Sakhalin Island; a popular geographical sketch]. Moskva, Izd-vo Glavsevmorputi, 1946. 52 p. illus., fold. map

"Literura": 1 p. at eni.

Description of the capital of the island, Aleksandrovsk-Sakhalinskii (p. 2) and elsewhere), as well as of the main ports of Otomari (formerly a Russian outpost, Korsakovsk), Maoka and Khonto; information on the oil center- Okha. Chapter on transportation (p. 50) contains information on railroad connections between ports and towns, with a general map of the island.

DLC: DK771.S2L8

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

LUTSKIY, S. [L]

LUTSKII, S. and IU. KOROTEEV. Mingechaurskii gidrouzel. (Geografiia v shkole, 1946, no. 2, p. 12-15.).

DLC: Unclass.

SO: LC, Soviet Geography, Part II, 1951/Unclassified.

LUTSKIY, S.L.

LUTSKII, S. Nevinnomysskii orositel'nyi kanal. (Geografiia v shkole, 1946, no. 2, p. 15-17.)

DLC: Unclassified

SO: LC, Soviet Geography, Part II, 1951, Unclassified

LUTSKIY, S. [L]

LUTSKII, S. Severo-Zapadnyi metallurgicheski zavod. (Geografiia v shkole, 1946.
no 3, p. 13-14.) DLC: Unclass.

SO: LC, Soviet Geography, Part I, 1951, Uncl.

LUTSKIY, S L

Geograficheskiye Ocherki Russkoy Taygi. (Geographical Outline of Russian Taiga)
Moskva, Geografiz. 1947.

181 p. illus., maps.

At head of title: Moskovskiy Ordena Lenina Gosudarstvennyy Universitet Im. Lomonosova.
Nauchnoissledovatel'skiy Institut Geografii.

'Spisok Ispol'zovannoy Literatury': p. 180—(182)

LUTSKIY, S.L.

Concerning I.M.Zabelin's article "Geographical environment, geographical natural complexes, and the system of physico-geographical sciences." Izv. Vses.geog.ob-va 85 no.4:434-438 J1-A4 '53. (MLRA 6:8)
(Physical geography)

LUTSKIY, S.L.

VASHCHENKO, A.T.; LUTSKIY, S.L.

Brotherly union and friendship of the Ukrainian and Russian
people. Geog.v shkole no.2:1-14 Mr-Ap '54. (MLRA 7:2)
(Ukraine--History)

LUTSKIY, S.L.

Sands in Rovno Province. Nauk.zap.L'viv.un. 28:125-126
'54.

(MLBA 9:10)

(Rovno Province--Sand)

LUTS'KIY, S.L.; SVARICHEVS'KIY, I.I.

Aleksandr Sergeevich Barkov; obituary. Nauk.zap.L'viv.un. 28:
131-132 '54. (MLBA 9:10)

(Barkov, Aleksandr Sergeevich, 1873-1953)

LUTSKIY, S.L.

The objective laws of geography as a science. Dop. ta pov.
L'viv. un. no.5:pt.2:53-55 '55. (MLBA 9:10)

(Geography)

LUTSKIY, S.L.

The sandy lands of the Goryn' and lower Sluch' watershed.
Dop. ta pov. L'viv. un. no.5 pt.2:55-56 '55. (MLBA 9:10)

(Rovno Province--Physical geography)

LUTSKIY, S. L.

Geographical distribution of rural population in Rovno Province.
Dop. ta pov. L'viv.un. no.6 pt.2:22-23 '55. (MLRA 10:3)
(Rovno Province--Anthropogeography)

Lutskiy S.
LUTSKIY, S. L.

Evaluation of natural conditions in Rovno Province from the point
of view of economic geography. Nauk.zap. L'viv un. 39:106-114 '56.
(MIRA 11:1)

(Rovno Province--Economic geography)

ЛУТСКИЙ, С.Л.
IUTSKIY, S.L.

The general economic regional division of the U.S.S.R. and the Northern Economic Region; remarks on an article by P.M. Alampiev in a previous issue, no.2, 1956. Izv. AN SSSR Ser. geog. no.2: 113-119 Mr-Apr '57. (MIRA 10:12)

(Economic zoning)
(Alampiev, P.M.)

LUTSKIY, S.L.

Role of human activity in the formation and appearance of present-day
land forms in the western provinces of the Ukrainian S.S.R. Nauk. zap.
L'viv. un. 40:199-203 '57. (MIRA 11:6)

1. Gosudarstvennyy universitet imeni Iv. Franko, L'vov.
(Ukraine--Physical geography)

LUTSKiy, S.I.

SOV/10-59-4-27/29

30(5)

AUTHOR:

TITLE:

Parkhomenko, I.I.

First Conference to Study the Development of Production of the Stanislavsky economic-administrative rayon (Stanislav Economic District)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Seriya Geograficheskaya, 1959, Nr 4, pp 156-157 (USSR)

ABSTRACT:

The article covers the First Inter-Vuz Conference to Study the Development of Production of the Stanislav Economic District. It is devoted to Current Economic and Geographical Research on the Stanislavsky rayon. The conference was organized by the Ministry of Higher Education of the Ukrainian SSR, the Chernovitskiy gosudarstvennyy universitet (Chernovtsy State University) and the Soviet narodnoye khozyaystvo (Economic Council) of the Stanislav Economic District, with more than 100 scientists, education specialists, engineers, economists, and planning workers participating who heard 50 reports. The following personalities delivered reports: K.M. Leutakiy, Head of the Chernovtsy State University, held an opening address; I.V. Romanov, Deputy Chairman of the Stanislav Economic Council, lectured on the future development of the district during 1959-61; V.I. Shulyenko, Head of the district and its Economic Prospects in the Future; and "Basic Laws in the Development and Geographical Distribution of Agricultural Production in the Carpathian areas of the Ukrainian SSR"; N.G. Ignatenko - on "The Present-Day Specialization Level in the Chemical Industry of the Stanislav Economic District and Its Future Development"; Ye.V. Mironova - on "The Industry of Chernovtsy and Its Future Development"; Ya.I. Zhupanitskiy and Ya.I. Bondarenko - on "The Wood Resources and Lumber Industry of the Stanislav Oblast and Their Future Prospects"; A.A. Poryvalov, Lvovskiy tergovyeko-ekonomicheskiy institut (Lvov Institute of Commerce and Economics); A.I. Kovalchuk, Lvovskiy gosudarstvennyy universitet (Lvov State University); and V.I. Kovalchuk, the Method Theory of Division of the USSR into Economic Districts; S.I. Iutskiy (Lvov University) - on "The Methods of Division into Low-Level Economic Districts"; L.I. Parkhomenko, Institut nauchnoy informatsii AN SSSR (Institute of Scientific Information AS USSR) - on "The Location and Nature of Economic and Geographical Research on Various Scales at Working Out Development Schemes of Economic Districts";

Card 1/6

Card 2/6

SOSNOVSKIY, L.A.; PAUL^s, V.P., kand.tekhn.nauk; FISHCHUKOV, M.A., kand.tekhn.nauk; DOBSHITS, M.L., inzh.; LUTSKIY, S.Ya., inzh.

Graphic work schedule and management in the construction of the Gur'ev - Astrakhan railroad. Transp.stroi. 15 no.10:5-7 0 '65.
(MIRA 18:12)

1. Glavnyy tekhnolog upravleniya stroitel'stvom No.99 (for Sosnovskiy).

LUTSKIY, V., general-mayor aviatsii, voyenny letchik pervogo klassa

Like in a real flight. Av. i kosm. 45 no.1:31-37 Ja '63.
(MIRA 16:1)

(Link trainers)

LUTSKIY, V.

Mysteries of the moon come to light. Av. i kosm. 48
no.10:30-33 0 '65. (MIRA 18:11)

1. Uchenyy sekretar' Moskovskogo otdeleniya Vsesoyuznogo
astronomogeodezicheskogo obshchestva AN SSSR.

LUTSKIY, V., general-mayor aviatsii; GALASHEV, Ye., inzh.-mayor,
voyenny letchik pervogo klassa

Takeoff and landing at a heavy side wind. Av. i kosm.
48 no.12:48-52 D '65. (MIRA 18:11)

LUTSKIY, V., general-mayor aviatsii, Geroy Sovetskogo Soyuza,
voyenny letchik pervogo klassa

Discipline and creative activity. Av. i kosm. 46 no.12:
65-68 D '63. (MIRA 17:1)

L 15405-66 EWT(1) GW

ACC NR: AP6000624

SOURCE CODE: UR/0209/65/000/012/0022/0023

AUTHOR: Lutskiy, V.

ORG: None

28
B

TITLE: The first map of the visible side of the moon

SOURCE: Aviatsiya i kosmonavtika, no. 12, 1965, 22-23

TOPIC TAGS: lunar topography, moon, mapping

ABSTRACT: The author discusses the lunar map and lunar telescopic observations carried out by the English mathematician Thomas Harriott. The Soviet astronomer Ye. Straut discovered the fact that Harriott had actually made use of what the Englishman called a "perspective tube" (telescope) for lunar observations as early as 1590, that is, twenty years before the construction of a similar device by Galileo Galilei. Straut was able to document this version with the help of materials he obtained from the British Museum. Harriott's first attempts at selenography are based on his own observations, as well as on those of his students, which the author places in the time period from 1609-1610. This "first" map indicates several score lunar objects and pinpoints with great detail and accuracy such features as "seas," "oceans," "craters," and "continents."
Card 1/2

L 15405-66

ACC NR: AP6000624

Orig. art. has: 1 figure.

SUB CODE: 03 / SUBM DATE: none

BC
Card 2/2

L 45223-66 EWT(1)/EWP(f)/T-2 WW/WE

ACC NR: AP6015004 SOURCE CODE: UR/0209/66/000/005/0058/0064

AUTHOR: Lutskiy, V., (Air Force Major General, Military Pilot First Class); 27
Galashev, Ye., (Major Corps of Engineers) B

ORG: none

TITLE: Operation of a supersonic air-intake system in flight

SOURCE: Aviatsiya i kosmonavtika, no. 5, 1966, 58-64

TOPIC TAGS: air intake system, supersonic flight

ABSTRACT: A study has been made of the operation of a supersonic air-intake system in flight. The dependence of the pressure ratio of the compressor²¹ and air intake on the Mach number of the flight is analyzed. Diagrams showing unstable modes of operation of the air intake at supersonic flight speeds are given. The pump of the air intake is described. Orig. art. has: 4 figures. [NT]

SUB CODE: 01/ SUBM DATE: none/

Card 1/1 LL

LUTSKIY, V.A.

S/102/60/000/005/008/008
D251/D305

AUTHORS: Inosov, V. L. and Luts'kyi, V. O. (Kiyev)

TITLE: Code impulse telemetering systems for dispatcher service of gas mains (Short notes from the speech at the First International Congress of IFAC)

PERIODICAL: Avtomatyka, no. 5, 1960, 78-80

TEXT: The author describes the work done in the Instytut avtomatyky Derzhplanu URSR (Institute of Automation of the State Plan of the UkrSSR) to construct a suitable telemetering system for dispatcher service of gas mains. A code-disc system based on manometer and vibrator sensors was found to be suitable, and germanium photodiodes $\phi\Delta-1$ or $\phi\Delta-2$ (FD-1 or FD-2) used as indicators. The system was based on the following technical data: 1) The system employed the control and registration at a central dispatcher point of the data collected at the control points; 2) the maximum number of control points was 30, the maximum volume of data from each point-8 measurements and 1 emergency signal; 3) the error of
Card 1/2

Code impulse telemetering ...

S/102/60/000/005/008/008
D251/D305

the telemetering system was $\pm 0.5\%$; 4) the time for testing and registration at the control-point of 1 parameter was 0.2 - 1 sec, depending on the speed of the teleprinter; 5) the width of the frequency band for high-frequency telephone channel working was 300 c/s, for a double pipeline - 600 c/s; the telemetering was contactless. Initial tests on the Dashava-Kiyev pipeline gave positive results.

SUBMITTED: May 30, 1960

Card 2/2

INOSOV, V.L.; LUTSKIY, V.A.

[Code-pulse telemetering system for the centralized control of gas
mains] Kodoimpul'snaia sistema teleizmereniia dlia dispetcherizatsii
magistral'nykh gazoprovodov. Moskva, 1960. 11 p. (International
Federation of Automatic Control, 1st International Congress, Moscow,
1960. Doklady, no.39). (MIRA 14:8)

(Telemetering)

(Gas distribution)

L.4600
13.2900

33772
S/103/62/023/001/012/014
D201/D304

AUTHOR: Lutskiy, V.A. (Kiev)

TITLE: Reliability of telemechanical systems

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 1, 1962,
116 - 121

TEXT: The probability of a single component failure in remote control devices, determined by the reliability R of the system and consequently by the permissible probability p_y of failure of the i -th node, is not an adequate and full reliability criterion; for two systems with equal p_y , with all other conditions being equal, the more reliable will be the one in which a component failure produces a corresponding failure of a smaller number of functions. The author proposes an additional reliability criterion of the so-called "weighting" coefficients η_i of any of the nodes. This coefficient is the ratio of the number of objects which cannot be made inoperative by the failure of the i -th node to the total number of objects

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Reliability of telemechanical systems

33772
S/103/62/023/001/012/014
D201/D304

controlled by the system. The reliability in this is $R(\eta)$ and is given by

$$R(\eta) = \prod_{i=1}^{\alpha} (1 - p_i \eta_i)$$



where α - the total number of nodes. Evidently $R(\eta) > R$ and the quality of operation will be little impaired with one failure. This failure to fail may be said to be the "vitality" of the system and determined from the ratio of the quantities above. Since both are nearly equal to unity, a better representation is as

$$v = \frac{1 - R}{1 - R(\eta)}$$

By considering systems with parallel frequency code, series time code and the parallel-series code, the author shows that differences in p_y are immaterial for large n 's and cannot be used as a criterion of quality. The "vitality" index depends in the first approximation on the arrangement structure only and its value increases with

Card 2/3

Reliability of telemechanical systems

33772

S/103/62/023/001/012/014
D201/D304

the number of sub-channels in use: It is maximum for systems with single frequency calling (within the limits of its applicability) and is minimum for time distributed systems. For large n's the best "vitality" index is shown by systems with series-parallel codes. A switching-code system has the index L smaller by about 3 times as compared with any others. There are 7 figures and 1 table.

SUBMITTED: June 12, 1961

+

Card 3/3

LUTSKIY, V.A.

Device for signaling parameter deviations in converters with
a coding mask. Avtom.i prib. no.1:88-89 Ja-Mr '62. (MIRA 15:3)

1. Institut avtomatiki Gosplana USSR.
(Electronic control)

LUTSKIY, V.A.

Telemetering system for the central dispatcher's control of a
main gas pipeline. Priborostroenie no.5:5-7 My '62.

(Gas, Natural--Pipe lines) (Remote control) (MIRA 15:5)

ZYUZIN-ZINCHENKO, A.A.; LUTSKIY, V.A.

Some methods for increasing the interference proofness of pulse-code modulation signals and the use of these methods in a distant telemetering system. Avtom. i prib. no. 1:21-25 Ja-Mr '62. (MIRA 15:3)

1. Institut avtomatiki Gosplana USSR.
(Telemetering) (Modulation (Electronics))

LUTSKIY, Viktor Aleksandrovich; POGREBINSKIY, S.V., otv. red.;
TITOVA, N.M., red.; TURBANOVA, N.A., tekhn. red.

[Calculation of the reliability and efficiency of radio-
electronic apparatus] Raschet nadezhnosti i effektivnosti
radio-elektronnoi apparatury; spravochnoe rukovodstvo.
Kiev, Izd-vo Akad. nauk USSR, 1963. 146 p. (MIRA 16:6)
(Radio industry--Quality control)
(Electronic apparatus and appliances)

LUTSKIY, V.A.

Reliability requirements for a remote control unit in a gas
pipeline. Gaz. prom. 8 no.9:47-51 S '63. (MIRA 17:8)

L 05078-67

ACC NR: AP6013316

(N)

SOURCE CODE: UR/0413/66/000/008/0136/0136

AUTHORS: Golen', S. I.; Litvin, V. P.; Lutskiy, V. I.; Makarevich, Ya. N.; Shne, F.B.

ORG: none

TITLE: A cargo-handling mast. Class 65, No. 180969

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 136

TOPIC TAGS: ship component, cargo handling equipment

ABSTRACT: This Author Certificate presents a cargo-handling mast on maritime ships. The mast is equipped with a crane arm, a rotating head mounted on the top of the mast, and a device for shifting the crane arm from one working position to the other diametrically located working position. The design permits the crane arm to be shifted without altering its rigging. The device is made in the form of two rotating brackets with yokes and with an intermediate pivot (see Fig. 1). The yokes are fastened to the lower part of the mast.

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UDC: 629.12.014.21

L 05078-67

ACC NR: AP6013316

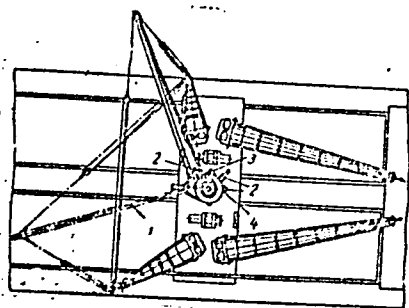


Fig. 1. 1 - crane arm; 2 - brackets;
3 - intermediate pivot; 4 - pivot

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 15Apr61

Card 2/2 fv

BAZYKIN, Viktor Vasil'yevich; LUTSKIY, Valeriy Konstantinovich; KREKSHI-
NA, L., redaktor; IGNAT'YEVA, A., tekhnicheskiy redaktor.

[Moscow planetarium] Moskovskii planetarii. Moskva, Moskovskii
rabochii, 1954. 158 p. [Microfilm] (MLRA 8:2)
(Moscow--Planetaria)

BAZUKIN, V.; LUTSKIY, V. K.

[Moscow planetarium] Moskovskii planetarii. Moskva, Mosk. rabochii,
1954. 160 p.
(MIRA 8:1D)

BASYKIN, Viktor Vasil'yevich; ~~LUTSKIY, Valeriy Konstantinovich~~; KREKSHINA, L.,
redaktor; YAKOVLEVA, Ye., tekhnicheskii redaktor

[The Moscow planetarium] Moskovskii planetarii. Izd. 2-oe, dop.
[Moskva] Moskovskii rabochii, 1956. 238 p. (MLRA 9:8)
(Moscow--Planetaria)

LUTSKIY, V. K.

29(0)

PHASE I BOOK EXPLOITATION

SOV/3184

Isakov, Petr Kuz'mich, Viktor Pavlovich Kaznevskiy, Valeriy Konstantinovich Lutskiy, and Tamara Lyudvigovna Rapoport

Iskusstvennyye sputniki zemli; 100 voprosov i otvetov (Artificial Earth Satellites; 100 Questions and Answers) Moscow, 1959. 95 p. 75,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR, and Vsesoyuznoye dobrovol'noye obshchestvo sodeystviya aviatsii i flotu. Sektsiya astronomiki.

Ed. (Title page): V. P. Kaznevskiy; Ed. (Inside book): L. M. Gorodenskiy; Tech. Ed.: G. V. Furman.

PURPOSE: This booklet is intended for the general reader interested in space exploration and travel.

COVERAGE: This booklet on space vehicles and travel is set up in the form of questions and answers. Among the questions discussed are: the construction of satellites, fuels, rockets,

Card 1/11

Artificial Earth (Cont.)

SOV/3184

orbital motion, satellite observation, man in space, astronavigation, etc. The authors thank Professor V. V. Dobronravov, Professor N. A. Fomin, I. A. Merkulov, Candidate of Technical Sciences S. M. Il'yashenko, N. A. Varvarov, V. G. Panteleyev, V. V. Glukhov, and N. V. Danilevskaya. No references are given.

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1. Why are artificial satellites necessary?	3
2. How was the first artificial satellite constructed?	4
3. How was the second artificial satellite constructed?	6
4. How was the third artificial satellite constructed?	8
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8. Why was the first earth satellite made in a spherical form?	12

Card ~~2/11~~

LUTSKIY, V.

On the way to distant worlds. Okhr.truda i sots.strakh. 4 no.11:
12-14 N '61. (MIRA 14:12)

1. Deystvitel'nyy chlen Vsesoyuznogo astronomo-geodezicheskogo
obshchestva AN SSSR.

(SPACE MEDICINE)

BAZYKIN, V.; LUTSKIY, V.

On the way to the moon. Av.i kosm. 44 no.3:19-24 '62.

(Lunar probes)

(MIRA 15:3)

LUTSKIY, V.N.

Energy methods for analyzing pulse-emitted thermoelectrons.
Radiotekh. i elektron. 6 no.9:1566-1573 S '61.

(MIRA 14:8)

(Semiconductors)

(Cathodes)

(Thermionic emission)