

Synthesis and Properties of 4-Alkyl- and  
4,4'-Dialkylbiphenyls and Their Hydrogena-  
tion Products of Composition  $C_{16}-C_{32}$

77854  
SOV/79-30-2-5/78

Hydrogenation of biphenyls was carried out over Raney Ni in solution of dimethylcyclohexane. Table 2 lists some of the synthesized monoalkyl- and dialkylbiphenyls (and respective bicyclohexanes) and their properties. Viscosity of the biphenyls as a function of temperature is shown in Figs. 1 and 2, while Figs. 3, 4, and 5 give infrared spectra (taken by V. A. Shlyapochnikov on the IKS-12 spectrophotometer with a NaCl prism) for some of the biphenyls and for the bicyclohexyls. There are 5 figures; 3 tables; and 6 references, 3 Soviet, 1 Japanese, 1 German, 1 U.K. The U.K. references is: P. Everitt, D. Hall, E. E. Turner, J. Chem. Soc., 1956, 2286.

ASSOCIATION: Institute of Organic Chemistry of the Academy of Sciences,  
USSR (Institut organicheskoy khimii Akademii nauk SSSR)

SUBMITTED: February 4, 1959

Card 3/9



Synthesis and Properties of 4-Alkyl- and 4-4'-Dialkylbiphenyls and Their Hydrogenation Products of Composition C<sub>16</sub>-C<sub>32</sub>

77854  
SOV/79-30-2-5/78

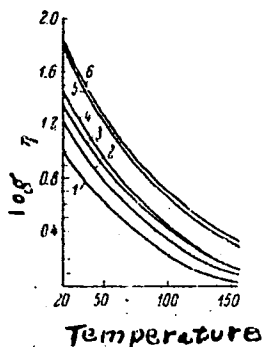
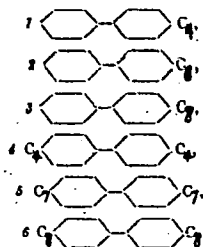


Fig. 1. Viscosity of hydrocarbons containing straight-chain alkyl radicals.



Synthesis and Properties of 4-Alkyl- and 4-4'-Dialkylbiphenyls and Their Hydrogenation Products of Composition C<sub>16</sub>-C<sub>32</sub>

77854  
SOV/79-30-2-5/78

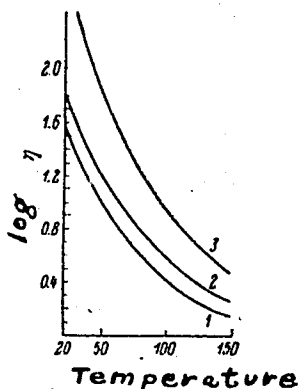
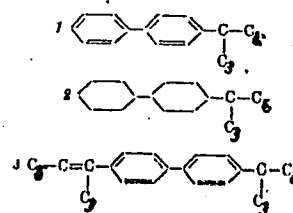


Fig. 2. Viscosity of hydrocarbons containing branched-chain alkyl radicals.



Card 6/9

Synthesis and Properties of 4-Alkyl- and 4-4'-Dialkylbiphenyls and Their Hydrogenation Products of Composition C<sub>16</sub>-C<sub>32</sub>

77854  
SOV/79-30-2-5/78

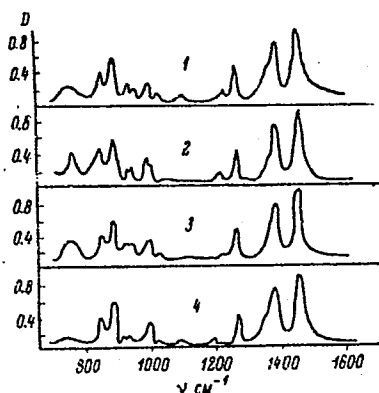
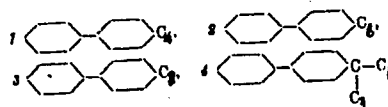


Fig. 4. Infrared spectra of alkylbicyclohexyls.



Card 8/9

KAPLAN, Ye.P., PETROV, A.D.

Isolating o-terphenyl from vat residues of benzene pyrolysis.  
Zhur.prikl.khim. 33 no.5:1226-1229 My '60. (MIRA 13:7)  
(Terphenyl) (Benzene)

S/020/61/137/003/019/030  
B103/B208

AUTHORS: Kaplan, Ye. P., Kazakova, Z. I. and Petrov, A. D.,  
Corresponding Member

TITLE: Order of addition of lithium to diphenyl

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 3, 1961, 606-608

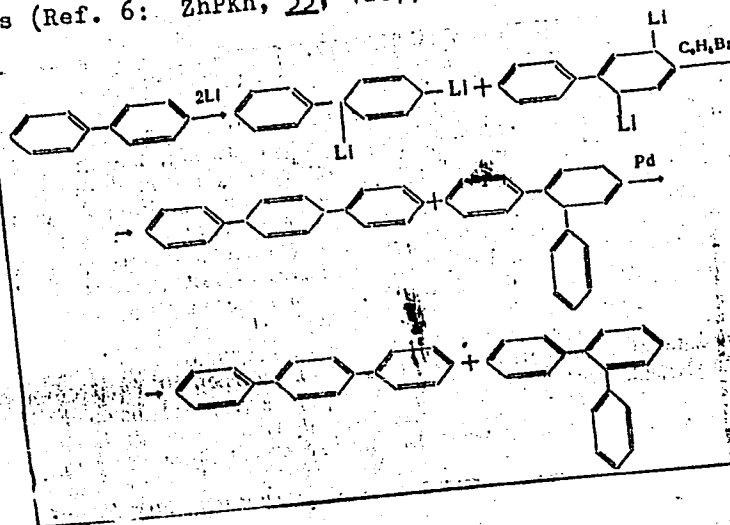
TEXT: The authors determine the point of addition of lithium to diphenyl, as the most probable position of alkyl substituents in alkyl dihydrodiphenyls has not been clarified as yet. The positions 1,4 and 2,5 were indicated in publications. The authors used two methods:  
1) oxidation of dihydrodiphenyl by  $SeO_2$ , and 2) condensation of dilithium dihydrodiphenyl with bromo-benzene, giving terphenyls which are easily identified. Ad 1): The attempt failed, as the expected products (phenyl cyclohexadienone, phenyl quinone) did not result, but a reduction of dihydrodiphenyl to diphenyl occurred. Ad 2): Condensation in ethereal medium and dehydrogenation of the reaction product on Pd-on-carbon gave a mixture of terphenyls. The authors isolated therefrom o- and p-terphenyl

Card 1/3

S/020/61/137/003/019/030  
B103/B208

Order of addition of lithium ...

by their methods (Ref. 6: ZhPKh, 33, 1207, 1960).



Card 2/3



Order of addition of lithium ...

S/020/61/137/003/019/030  
B103/B208

m-terphenyl could not be obtained. o- or p-isomer predominates, depending on the reaction temperature. 50% of o-terphenyl and more than 50% of the p-isomer are formed at 30°C and 0°C, respectively. Ye. D. Lubuzh determined the infrared spectra for which she is thanked. The UR-10 device was used for this purpose. The bands detected were assigned to the p- and o-isomers. In conclusion, the authors state that lithium may be added to diphenyl both in 1,4- and 2,5-position. The p-isomer possibly results from isomerization of the o-isomer. There are 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The reference to the English-language publication reads as follows: "G. M. Bedger, J. Am. Chem. Soc., 69, 764 (1947).

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: December 21, 1960

Card 3/3

PETROV, A.D.; KAPLAN, Ye.P.; KURASH, M.

Interaction of iso-C<sub>3</sub>H<sub>7</sub>Cl and tert-C<sub>4</sub>H<sub>9</sub>Cl with aromatic acid esters  
in the presence of magnesium and lithium. Zhur. ob. khim. 32 no.1:  
19-24 Ja '62. (MIRA 15:2)

(Alkyl halides)

(Esters)

(Lithium compounds)

42168

S/195/62/003/005/002/007  
E075/E436

11.9200  
11.0132 (also 4223)

AUTHORS: Molin, Yu.N., Chkheidze, I.I., Kaplan, Ye.P.,  
Buben, N.Ya., Voyevodskiy, V.V.

TITLE: Formation of radicals during radiolysis of solid  
organic materials. Part I. Comparison of radical  
yields in various organic compounds

PERIODICAL: Kinetika i kataliz, v.3, no.5, 1962, 674-679

TEXT: The work was carried out to establish a connection  
between molecular structure and probability of its dissociation  
into radicals under the action of high energy radiation.  
A series of naphthenic and hydroaromatic hydrocarbons with  
non-conjugated unsaturated bonds were investigated as well as  
some aromatic compounds (di- and triphenyls and phenyl ethers).  
The purity of the compounds was 95 to 99%. The solids were  
irradiated with fast electrons, the dosage varying between 0.02  
and 1 Mrads/sec. Maximum dosage reached 30 Mrads. The yields  
of free radicals were determined by electron paramagnetic  
resonance at -170 to -110°C using the initial linear part of the  
curves relating the numbers of radicals formed to time of  
Card 1/3

Formation of radicals ...

S/195/62/003/005/002/007  
E075/E436

irradiation. It was found that for naphthenic and hydroaromatic hydrocarbons the yields amounted to several radicals per 100 eV of absorbed energy. A large yield was also obtained for n-hexadecene-1. Thus the unsaturated bonds in these compounds do not inhibit the radical formation. This conclusion does not agree with that obtained by A. Charlesby and M.G. Ormerod (V. Intern. Symp. on Free Radicals, Uppsala, 1961, paper 11). For the aromatic compounds the yields are smaller by 1 to 2 orders of magnitude. The yields decrease with the increasing number of conjugated double bonds in aromatic molecules and with the increasing degree of substitution of benzene rings with groups containing unshared electron pairs or multiple bonds conjugated with the aromatic system of the molecule. It is concluded that the yield of radicals  $G_R$  decreases with the decreasing first excitation energy level  $E_1$ . Especially marked changes in the yield are observed when  $E_1 \approx DCH$ , where  $DCH$  is the energy of rupture of a C-H bond. There are 1 figure and 2 tables.

ASSOCIATIONS: Institut khimicheskoy fiziki AN SSSR  
(Institute of Chemical Physics AS "SSR)

Card 2/3

Formation of radicals ...

S/195/62/003/005/002/007  
E075/E436

Institut khimicheskoy kinetiki i goreniya  
SO AN SSSR (Institute of Chemical Kinetics and  
Combustion SO AS USSR)  
Institut organicheskoy khimii AN SSSR  
(Institute of Organic Chemistry AS USSR)

SUBMITTED: May 9, 1962

Card 3/3

PETROV, A.D.; KAPLAN, Ye.P.; TSIR, Ya.

Effect of temperature on the direction of the reaction of  
fatty acid esters with lithium alkyls. Zhur.ob.khim. 32  
no.3:693-698 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.  
(Acids, Fatty) (Lithium compounds)

PETROV, A. D.; KAPLAN, Ye. P.; KAZAKOVA, Z. I.; LUBUZH, Ye. D.

Synthesis of o-alkyl and o-aryl biphenyls. Izv. AN SSSR. Otd.  
khim. nauk no.1:161-166 '63. (MIRA 16:1)

1. Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

(Biphenyl)

S/089/63/014/003/015/020  
B102/B186

AUTHORS: Sevast'yanov, Yu. G., Bulanov, L. A., Kaplan, Ye. P.,  
Nefedov, O. M., Smirnov-Averin, A. P.

TITLE: An activation method for quantitative determination of  
organically bound sulfur impurities in polyphenyls

PERIODICAL: Atomnaya energiya, v. 14, no. 3, 1963, 324 - 326

TEXT: A great disadvantage of using polyphenyls as coolants and moderators in power reactors is their content of sulfur impurities (due to the production conditions).  $S^{32}$  changes over into  $P^{32}$  in fast-neutron induced (n,p) reactions, while  $P^{32}$  emits betas of 1.7 Mev and renders the coolant regeneration difficult; moreover, sulfur reacts with the tube material to form metal sulfides which cause corrosion. In order to determine the  $S^{32}$  content an activation method based on the  $S^{32}(n,p)P^{32}$  reaction was developed. The  $P^{32}$  activity is determined on comparison with a reference standard (pure  $Na_2SO_4$ ), the irradiation (total  $10^{18}$  n/cm<sup>2</sup>)  
Card 1/2



An activation method for ...

S/089/63/014/003/015/020  
B102/B186

taking 26 - 28 hrs; between irradiation and analysis a period of 7 - 10 days was used for complete decay of  $\text{Na}^{24}$ . The induced activity was measured with an end-window counter with a  $78 \text{ mg/cm}^2$  aluminum filter. A content of  $\sim 0.1 \%$  S in a batch of 10 - 20 mg was found to correspond to  $\sim 3000$  pulses/min. Consequently, when the irradiation time can be raised 3 to 5 times, quantities of 0.001 - 0.0005 % S can even be determined. The sensitivity can be further increased by concentrating the sample. There is 1 table.

SUBMITTED: March 10, 1962

Card 2/2

L 9876-63 EPR/EWP(j)/EPF(c)/EPF(n)-2/EMI(m)/HDS/ES(s)-2 AFFTC/ASD/ZSD-3/AFWL/  
SSD Pb-4/Pc-4/Pr-4/Pu-4/Pt-4 RM/WW/MAF

ACCESSION NR: AP3002260

S/0089/63/014/006/0555/0558 78

AUTHOR: Sevast'yanov, Ya. G.; Bulanov, L. A.; Smirnov-Averin, A. P.; Kaplan, Ye. P.; Nefedor, O. M.; Chel'tsova, M. A.; Petrov, A. D. 70

TITLE: Thermal and radiation stability of certain aromatic compounds

SOURCE: Atomnaya energiya, v. 14, no. 6, 1963, 555-558

TOPIC TAGS: pyrolysis, radiolysis, Gamma radiation, neutron radiation, thermal stability, radiation stability, polycyclic aromatic hydrocarbons, naphthalene, anthracene, biphenyl, terphenyl, alkylated biphenyls, alkylated terphenyls, diphenyl methane, phenoxybiphenyl

ABSTRACT: The pyrolysis and Gamma radiation induced and neutron-radiation induced radiolysis of a number of polycyclic aromatic hydrocarbons, (isopropyl- and phenyl-substituted biphenyls, naphthalenes, and terphenyls; polyphenylenes with methylene bridges between the rings; and phenoxybiphenyl isomers) have been studied. The samples were degassed beforehand to prevent oxidation. A study of pyrolysis at 400C indicated that the stability of biphenyls and terphenyls was two to three orders above that of Alpha-phenylnaphthalene, the alkyl-

Card 1/3

L 9876-63

ACCESSION NR: AP3002260

2

substituted hydrocarbons, and the aromatic ethers. An increase in the number of alkyl substituents in the hydrocarbons decreased their thermal stability. Of the alkyl-substituted hydrocarbons, isopropyl-m-terphenyl was found to be the most stable to decomposition to gaseous products and isopropylbiphenyl the most stable to polymerization. Thermal stability decreased from biphenyl to phenoxybiphenyls. The pyrolysis kinetics was studied by additional pyrolysis of the most stable compound, m-terphenyl, at 194, 475, and 459C. From the results obtained, rate constants of pyrolysis were calculated, and activation energy was found to be about 70 kcal/mol. Pyrolysis at 410C of polyphenylenes with methylene bridges between the rings revealed that their thermal stability was three orders below that of m-terphenyl. In experiments with irradiation of the hydrocarbons in a neutron field (10 sup 13 n/cu cm sec) at 60 and 350C, m-terphenyl was found to be the most stable of all the compounds. An increase in temperature from 60 to 350C increased radiation-induced decomposition by a factor of 3.8. From Gamma-irradiation experiments (dose, 10 sup 21 ev/g) it was found that the energy absorbed was not sufficient to produce radiolytic decomposition of biphenyl, terphenyls, or phenylnaphthalenes. It was concluded that the superior thermal and radiation stability shown by biphenyl and by the terphenyl isomers makes them suitable as heat transfer agents for nuclear power reactors. Orig. art. has: 5 tables.

Card 2/3

KAPLAN, Ye.P.; ZAKHAROVA, S.V.; PETROV, A.D.

Interaction of sec- and tert-butyllithium with esters of benzoic, phenylacetic, hydroxycinnamic, and cyclohexanecarboxylic acids.  
Zhur.ob.khim. 33 no.7:2103-2106 J1 '63. (MIRA 16:8)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.  
(Lithium organic compounds) (Acids, Organic)

MOLIN, Yu.N.; CHKEIDZE, I.I.; KAPLAN, Ye.P.; BUBEN, N.Ya.; VOYE-  
VODSKIY, V.V.

Formation of radicals in the radiolysis of solid organic  
substances. Part 2: Yield of radicals in benzene and biphenyl  
derivatives. Kin. i kat. 4 no.4:557-560 JI-Ag '63. (MIRA 16:11)

1. Institut khimicheskoy fiziki AN SSSR, Institut khimicheskoy  
organicheskoy khimii AN SSSR.

KAPLAN, Ye.P.; PETROV, A.D. [deceased]

Interaction of acid esters with lithium alkyls. Dokl. AN SSSR 155  
no.6:1352-1353 Ap '64. (MIRA 17:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
2. Chlen-korrespondent AN SSSR (for Petrov).

L 23511-65 EWT(m)/EPF(c)/EPR/EWP(j) Po-4/Pr-4/Pz-4/Pi-4 RPL WW/  
JW/RM

ACCESSION NR: AP4047127

S/0080/64/037/010/2283/2286

AUTHOR: Kaplan, Ye. P.; Kazakova, Z. I.; Sevast'yanov, Yu. G.;  
Smirnov-Averini, A. P.; Petrov, A. D.

TITLE: Preparation and properties of isopropylterphenyl

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 10, 1964, 2283-2286

TOPIC TAGS: isopropylterphenyl, synthesis, preparation, property, diisopro-  
pylterphenyl, heat transfer agent, thermal stability, radiation stability, isomeri-  
zation

ABSTRACT: The preparation of isopropylterphenyl by alkylation and its isomeri-  
zation under alkylation conditions were investigated, as well as its thermal, ra-  
diation and viscosity properties. Alkylation of terphenyl with isopropyl chloride  
using  $AlCl_3$  catalyst in hexane solution at 0-25C gave mono-tetra isopropylter-  
phenyls. The monoisopropylterphenyl yield was optimum with reactant terphenyl:  
isopropyl chloride: $AlCl_3$  ratio of 1:2:0.5; diisopropylterphenyl was maximum with  
a 1:4:1 ratio. Isomerization depended on catalyst (no isomerization with  $H_3PO_4$ )

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L 23511-65

ACCESSION NR: AP4047127

and temperature (isomerization with  $AlCl_3$  catalyst increased with temperature). Isopropylterphenyl has high radiation and thermal stability. It can be used as a heat transfer agent in the 200-390°C temperature range. Its higher boiling temperature and smaller decomposition in comparison to isopropylidiphenyl make it more promising for this application. Orig. art. has: 4 tables and 1 figure

ASSOCIATION: None

SUBMITTED: 02Sep63

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 003

OTHER: 007

Card 2/2



KAPLAN, Ya.P.; KAZAKOVA, Z.I.; PETROV, A.D. [deceased]

Interaction of lithium adduct of benzene with tert-C<sub>4</sub>H<sub>9</sub>Cl and n-C<sub>4</sub>H<sub>9</sub>Cl.  
Izv. AN SSSR. Ser. khim. no.3:537-538 '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

8(3)

SOV/105-59-5-16/29

AUTHOR: Kaplan, Ye. S., Candidate of Technical Sciences (Kuybyshev)

TITLE: Some Particularities in the Propagation of a Homogeneous Cylindrical Electromagnetic Wave (Nekotoryye osobennosti rasprostraneniya odnorodnoy tsilindricheskoy elektromagnitnoy volny)

PERIODICAL: Elektrichestvo, 1959, Nr 5, pp 68-69 (USSR)

ABSTRACT: The particularities in the propagation of a homogeneous cylindrical electromagnetic wave in a conducting medium surrounding a cable insulated from this medium (e.g. in the outer casing of a coaxial cable, or in water surrounding a submarine cable) are investigated here. For simplification, it is assumed that  $\frac{\partial}{\partial z} = 0$  and  $\frac{\partial}{\partial \varphi} = 0$ . Besides, it is assumed that  $\frac{\partial}{\partial t} = j\omega$ . The field of such wave changes its intensity and phase only along the radius (Refs 1, 2). Then it is assumed that the thickness of the casing of the coaxial cable (or the thickness of the sea-water layer around the cable) is sufficient for a complete dying-out of the wave in the casing. In such case, the intensity of the electric and of the magnetic fields in the medium is expressed by the Hankel functions of the zeroth ( $H_0^{(2)}$ ), and of the first ( $H_1^{(2)}$ ) order, and formulas (1) are given here.

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SOV/105-59-5-16/29

Some Particularities in the Propagation of a Homogeneous Cylindrical  
Electromagnetic Wave

From these, the formulas (5) for the relative amplitudes  $K_e$  and  $K_m$  of the electric and magnetic waves, as well as the formulas (6) for the phase velocities  $v_e$  and  $v_m$  in the propagation of these waves, are then derived. These formulas (5) and (6) shows that not only the relative amplitudes but also the phase velocities in the propagation of a cylindrical wave are functions of the coordinates. These functions, and consequently the propagation laws expressed by these functions, are different for the electric and magnetic waves. With the use of the asymptotic approximations of the Hankel functions, the formulas (5) and (6) for the near zone where  $|jk\rho| \ll 1$  are transformed into the formulas (7) and (8), and for the far zone where  $| -jk\rho| \gg 1$  into the formulas (9) and (10).  $\rho$  is the distance of the observation point from the cable axis,  $k = \sqrt{j\omega\mu\gamma}$ . Thus, the electric wave weakly fades out in the near zone. In the first approximation, its amplitude is proportional to the  $\ln \frac{D}{\rho}$ ,  $D$  being a constant depending on the electromagnetic properties of the medium. The fading-out of the amplitude of the magnetic wave does not depend on

Card 2/3

SOV/105-59-5-16/29

Some Particularities in the Propagation of a Homogeneous Cylindrical Electromagnetic Wave

the type of the medium, and follows a certain hyperbolic law for the fading-out of the magnetic field in a conductor with round cross section. In the distant zone, the amplitudes of the electric and magnetic waves tend to zero if the value  $\rho$  increases. The phase velocities in the propagation of the electric and magnetic waves show a constant value only in the distant zone. This value is equal to the propagation velocity of a plane wave. In the near zone, these two waves have different phase velocities: the velocity of the electric wave is lower than the velocity of the plane wave, and the velocity of the magnetic wave is higher. In the intermediate zone, a continuous change (from point to point) of the propagation functions (5) and (6) takes place. There are 2 Soviet references.

SUBMITTED: November 13, 1958

Card 3/3

SOV/170-59-6-3/20

8(3)

AUTHOR:

Kaplan, Ye.S.

TITLE:

On the Effect of Electromagnetic Properties of the Surrounding Medium on the Longitudinal Parameters of Coaxial Lines

PERIODICAL:

Inzhenerno-fizicheskiy zhurnal, 1959, Nr 6, pp 18-27 (USSR)

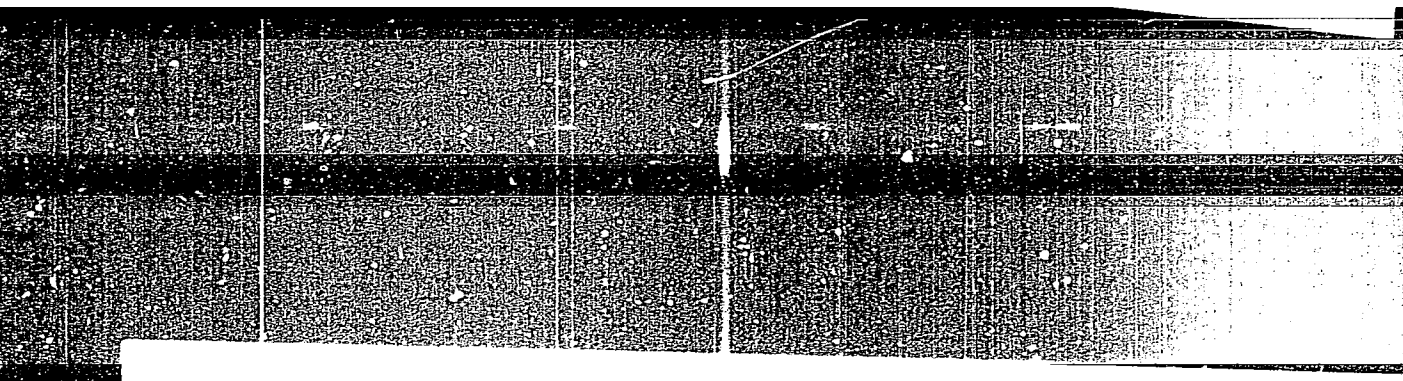
ABSTRACT:

The skin effect in coaxial lines is usually considered under an assumption that the thickness of the cable outer envelope is infinitely great. This assumption is admissible, if this thickness exceeds considerably the so-called depth of electromagnetic field penetration. In some cases, as e.g. in low-frequency coaxial lines of long extension, this condition is not fulfilled, and electromagnetic field penetrates beyond the cable envelope into external space. The present article treats such a case by considering the hollow cylindrical cable and the surrounding medium as a two-layer composite beyond the first layer of which is a finite thickness and the second (medium) is infinitely thick. attempt to describe the field for an analogous case was made by Netushil and K.M. Polivanov [Ref 4], but their approach is criticized by the author as incorrect. He proposes another method for so

Card 1/4

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000720510002-4



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000720510002-4"

SOV/170-59-6-3/20

On the Effect of Electromagnetic Properties of the Surrounding Medium on the Longitudinal Parameters of Coaxial Lines

There are: 1 diagram and 5 Soviet references.

ASSOCIATION: Industrial'nyy institut im. V.V. Kyubysheva (Industrial Institute imeni V.V. Kuybyshev), town of Kuybyshev.

Card 4/4

9,9000  
~~24(3)~~

67813

SOV/143-60-1-9/21

AUTHOR: Kaplan, Ye.S., Candidate of Technical Sciences

TITLE: The Phenomenon of "Splitting" in a Uniform Cylindrical Electromagnetic Wave 1

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy: Energetika, 1960, Nr 1, pp 59 - 67 (USSR)

ABSTRACT: This is a description and mathematical analysis of the "splitting" phenomenon in a uniform cylindrical electromagnetic wave. By "splitting" is meant the acquisition of different attenuations and phase speeds by the electric and magnetic waves: it expresses the fundamental properties of all electromagnetic fields capable of technical realization. The author found that attenuation of a magnetic wave along the radius is more intense than that of an electric wave. In the near distribution zone, the phase speed of the magnetic wave exceeds the speed of light, while the phase speed of the electric wave is many times less than the

Card 1/2

9,3700

S/143/62/000/004/001/006  
D238/D307

AUTHOR: Kaplan, Ye.S., Candidate of Technical Sciences, Docent

TITLE: Electromagnetic wave processes in the mass of a solid conductor of circular cross-section

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, 5,  
no. 4, 1962, 41 - 48

TEXT: Propagation of a cylindrical wave proceeds according to laws materially different from those set out for propagation of a plane electromagnetic wave as described by means of its damping and phase velocity. Generally speaking, the electrical and magnetic components of the wave field possess not only different damping, but also different phase velocities. This phenomenon, described as a 'splitting' of the electromagnetic wave is accompanied by a change in the damping and velocity of propagation of the wave, in step with the variation in the radial coordinate of the point of observation. Previous works have investigated the wave 'split' process as applicable to the field in the outer sheath of a coaxial cable, in addition to the field in the soil, water and atmosphere surrounding a single conductor 1/2



Electromagnetic wave processes in ...

S/143/62/000/004/001/006  
D238/D307

tor or coaxial cable. The present investigation of the characteristics of this phenomenon as applied to the field in the body of a solid conductor of circular section yields expressions for determining the damping and phase velocity of propagation of an electromagnetic wave. The propagation functions of an electromagnetic wave are derived for investigating the main propagation functions in the boundary and axial zones of the conductor. It is demonstrated from Maxwell equations that the distribution of the axial and transverse fields is not arbitrary, but follows a definite relationship. Any assertions regarding the indivisibility of the electromagnetic wave irrespective of its geometric features are mistaken, since they equally represent negation of the Maxwell equations. VB

ASSOCIATION: Kuybyshevskiy industrial'nyy institut imeni V.V. Kuybysheva (Kuybyshev Industrial Institute, imeni V.V. Kuybyshev)

SUBMITTED: March 6, 1961

Card 2/2

KAFIAN, Ye.S.

Predominant use of the international system of units in a course on electricity. Izv.vys.ucheb.zav.;fiz.no. 2:39-41 '64.

Selection and method of determining the fundamental electromagnetic unit in the international system of units. Ibid.:41-45 (MIRA 17:6)

1. Kuybyshevskiy pedagogicheskiy institut imeni Kuybysheva.

KAPLAN, Ye.S.

Present-day problems demanding further improvement of the MKSA  
system of units. Izv. vys. ucheb. zav.; fiz. no.4:152-157 '64  
(MIRA 17:8)

1. Kuybyshevskiy pedagogicheskiy institut imeni Kuybysheva.

L 04236-67 EWT(1)

ACC NR: AR6031902

SOURCE CODE: UR/0058/66/000/G06/H043/H043

AUTHOR: Kaplan, Ye. S. ; Baybursyan, E. D.

27

TITLE: Magnetic type transmission line using ferrites

B

SOURCE: Ref. zh. Fizika, Abs. 6Zh297<sup>25</sup>

REF SOURCE: Tr. 1-y Mezhevuz. konferentsii ped. in-tov po radiofiz. i spektroskopii. M., 1965, 126-137

TOPIC TAGS: transmission line, reluctance, permeance, ferrite magnetic circuit

ABSTRACT: A two-conductor open magnetic type transmission line using guiding elements in the form of round ferrite magnetic circuits is investigated. The reluctance and permeance are calculated. It is shown that at given frequencies and electromagnetic parameters of the ferrite, the nature of its internal reluctance reactance depends on the magnetic circuit diameter. Conditions for line transparency are established. Problems concerning the correct selection of the ferrite brand and transverse dimensions of the line are discussed. [Translation of abstract]

SUB CODE: 09, 20/

Card 1/1 *plw*

KAPLAN, Ye.Ya .

"The Problem of the Mechanism of the Therapeutic Action of Species Nonspecific Serum During Traumatic Shock." Cand Med Sci, Chair of Pathology and Physiology, Rostov-on-Don Medical Inst, Rostov-on-Don, 1955. (IL, No 15, Apr 55 )

SO: Sur.No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

KAPLAN, Ye. Ya.

Kaplan, Ye. Ya.

"The problem of the mechanism of the therapeutic effect of Belen'kiy's therapeutic serum in traumatic shock." Military Faculty, Central Inst for the Advanced Training of Physicians. Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Sciences).

Knizhnaya letopis'  
No. 21, 1956. Moscow.

27.5100

25248

S/177/60/000/007/002/011  
D264/D304

AUTHOR: Kaplan, Ye. Ya., Candidate of Medical Sciences,  
~~Lieutenant Colonel~~, Medical Corps

TITLE: The effects of prolonged waiting for take-off on  
the working capacity of pilots with emotional-  
vegetative instability

PERIODICAL: Voyenno-meditsinskiy zhurnal, no. 7, 1960, 16-19

TEXT: The aim of the research was to determine the effects of long waits at the airfield on the working capacity of pilots with symptoms of asthenia and emotional-vegetative lability. Tests were run on two groups of fliers aged 23-35. The first group contained healthy, emotionally stable persons without vegetative disturbances. The second group comprised persons with symptoms of emotional-vegetative lability. Studies were made of: 1) the functional state of the cardiovascular system using dosed physical strain tests; 2) the muscular strength of the wrists with the aid of a dynamometer; 3) the extent and distribution of attention as

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The effects of prolonged waiting...

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checked by numbered tables; 4) flying capacity, judged by the flight leader. The study showed that waiting around for take-off definitely affects the functional state of fliers with certain deviations in health and has a detrimental effect on their ability to fulfill tasks. In healthy and emotionally sound fliers, the quality of pilot technique in flights after a long waiting period did not alter appreciably, whereas it deteriorated somewhat in the emotionally labile fliers. The author recommends that the latter type of fliers be singled out by Air Force doctors and that their flights be planned to eliminate prolonged waiting around. There are 2 figures.

SUBMITTED: March, 1960

Card 2/2



L 20794-65 EWG(j)/EWG(r)/EWT(1)/FS(v)-3/EWG(v)/EWG(a)/EWG(c) Pe-5/Po-4/  
Pa-4 AFWL/ASD(a)-5/AEDC(a)/ASD(f)-3/AMD/AFTC(a)/ESD(t) DD  
ACCESSION NR: ARL046196 S/0299/64/OOC/O16/A013/A013

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 16A109

AUTHOR: Kovalenko, A. P.; Kaplan, Ye. Ya.; Boyarkin, V. P.; Klochkov, A. M.

TITLE: Pathogenesis of hemodynamic disorders during supersonic air flow action

CITED SOURCE: Sb. Aviats. i kosmich. meditsina. M., 1963, 252-254

TOPIC TAGS: dog, supersonic airflow, biological effect, blood, hemodynamics, blood pressure, cardiovascular system, nervous system, noise

TRANSLATION: <sup>2</sup> The effect of supersonic airflow (1600 km/hr) on the cardiovascular and nervous systems of dogs was determined in acute and chronic experiments. Shifts in cardiac muscle excitability and conductivity took place during airflow action. An increase in arterial pressure (by 10-15%) and blood circulation rate (by 15-20%) during increase in airflow speed took place due to the noise factor

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L 20794-65  
ACCESSION NR: AR4046196

(120 db). During direct airflow action, arterial pressure decreases (by 30-35%) and blood circulation rate is retarded (by 20-30%). After 30-60 min the hemodynamic disorders are similar to those of traumatic shock. Pressor reaction to carotid artery constriction was reduced by 20-30%. Excitability of the vasomotor and respiratory center increased under the influence of airflow noise and decreased during airflow impact action. The functional state of the sympathetic nerves changed in a similar manner. No significant changes were observed on the part of the parasympathetic innervation state during airflow noise and impact action. Airflow noise caused intensification of brain bioelectric activity. Bioelectric activity change in the cortex during impact airflow action attests to development of inhibiting processes. Activity of subcortical formations increased in some animals and decreased in others. Airflow effect on the organism was insignificant in cases when special protection was used.

SUB CODE: LS

ENCL: 00

Cor: 2/2

AGADZHANYAN, N.A.; ZHAROV, S.G.; KALINICHENKO, I.R.; KARPOVA, L.I.;  
KAPLAN, Ye. Ye.; KUZNETSOV, A.G.; OSIPOVA, M.M.; MAZIN, A.N.;  
SERGIYENKO, A.V.

Effect of various rates of decompression on the human body.  
Voen. med. zhur. no.10:49-53 0 '65. (MIRA 18:11)

ZORKHAR<sup>1</sup>, V.P. (Moskva); KAPLAN, Yu.Ya. (Moskva); MASLISOV, Yu.A. (Moskva);  
FUSHKINA, I.P. (Moskva)

Experiment in collective hypnopedic. Vop. psikhol. 11 no.1:143-  
148 Ja-F '65. (MIRA 18:4)

L 10955-67 ENT(1) SGTB DD/GD SOURCE CODE: UR/0000/66/000/000/0193/0193  
ACC NR: AT6036574 31

AUTHOR: Kaplan, Ye. Ya.; Ogloznev, V. V.

ORG: none

TITLE: The effect of mexamine on gas metabolism in animals under conditions of an altered gas medium [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 193

TOPIC TAGS: hypoxia, hyperoxia, mexamine, drug effect, hypoxia tolerance, biologic metabolism

ABSTRACT: The effect of oral mexamine (5-methoxytryptamine) in a dosage of 200 mg/kg on gas metabolism was studied in white rats elevated to pressure-chamber altitudes of 7300 m and 11500 m in a pure oxygen atmosphere. Control rats did not receive mexamine.

It was found that gas metabolism is not constant during 20 to 30 days in a pure oxygen atmosphere. The gas metabolism of both groups of rats

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L 10955-67

ACC NR: AT6036574

showed the resting  $C_2$  requirement and  $CO_2$  excretion to be 10% to 35% below initial data. The decrease in gas metabolism was greater in the experimental (mexamine) rats, indicating that mexamine has possibilities as an agent for increasing resistance to oxygen deficit.

As an active antioxidant, mexamine inhibits oxidative processes in tissues, and can lower the tissue oxygen requirement and thus decrease the oxygen deficit during hypoxia or hyperoxia. It has been shown that decreasing oxygen deficit increases the resistance of the organism to acute hypoxia. It is concluded that antioxidants of the mexamine type may be used as prophylactic drugs to increase the resistance of the organism to oxygen starvation. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Cord 2/2

1. 10056-67 APT(1) SCMB DD/GD  
ACC NR: AT6036575

SOURCE CODE: UR/0000/66/000/000/0194/0395

26

AUTHOR: Kaplan, Ye. Ya.

ORG: none

TITLE: Increasing the organism's resistance to hypoxia by means of antioxidants  
[Paper presented at the Conference on Problems of Space Medicine held in Moscow  
from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy  
kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii,  
Moscow, 1966, 194-195

TOPIC TAGS: hypoxia, biologic respiration, central nervous system, biologic  
metabolism, drug effect

ABSTRACT: Not only training, but also pharmacological agents may be used to in-  
crease resistance to low atmospheric oxygen pressures.

Antioxidants have been proposed to decrease tissue oxygen requirements,  
and create conditions of more economical oxygen utilization. Drugs from  
the antioxidant group were studied in 250 white mice, grouped as follows:  
Group 1, receiving 200 mg/kg of oral mexamine (5-methoxytryptamine);  
Group 2, receiving 150 mg of intraperitoneal BE-57; Group 3, receiving  
40 mg/kg of intraperitoneal ambunol (4-[(N,N'-di-(2-hydroxyethyl)-(amino-  
ethyl))-1,2-ditert. butyl phenol]; and Group 4, receiving a physiological  
solution (controls). The mice were "elevated" in a pressure chamber to an  
equivalent altitude of 9000 m at 3 km/min; after 2 min at this altitude they were  
"elevated" an additional 1000 m every 5 min. Protective effectiveness of drugs was  
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ACC NR: AT6036575

evaluated by the time until respiration ceased. The following additional determinations were made: subliminal pulse summation, motor reflex latent period, and vital staining.

Respiration ceased later in the mice receiving antioxidants. Average time to death in the controls was 6.5 min at an "altitude" of 9 to 10 km. In the mexamine group, average time to death was 17.5 min at 11 to 12 km; in the BE-57 group, time to death was 15.3 min and in the ambunol group, 14.8 min (at "altitudes" of 10 to 12 km). The animals receiving antioxidants required 30% fewer subliminal pulses to evoke motor contractions than the control animals. Motor reflex latent period was 35% to 50% shorter in the experimental mice than in the controls, indicating that the functional state of the CNS was less impaired in the animals receiving antioxidants.

Vital staining of the brain after hypoxia, it was found, was 20% to 25% less pronounced in the experimental mice than in the controls. If it is true that the sorption properties of cell proteins are directly related to their degree of alteration and denaturation by injury, this means that use of the studied antioxidant drugs reduced denaturation of cerebral tissue proteins during hypoxia. [W.A. No. 22; ATD Report 66-116]

SUB CODE: C6 / SUBM DATE: 00May66

Card 1/2



KAPLAN, Yu. D.

Cand. Med. Sci.

"Twenty-Five Years of Work in the Eye Consultation Room of the Institute  
of Workers' Hygiene and Occupational Diseases, Academy of Sciences of the USSR,"  
Vest. Oftalmol., 28, No.4, 1949

Eye Inst. Labor Hygiene and Occupational Diseases

ANDREYEVA-GALANINA, Ye.TS., prof.; GENKIN, S.M., prof. [deceased];  
GUS'KOVA, A.K., doktor med. nauk; DVIZHKOV, P.P., prof.;  
DOLGOV, A.P., prof.; DROGICHINA, E.A., prof.; YEVGENOVA,  
M.V., doktor med. nauk; KAPLAN, Yu.D., kand. med. nauk;  
KOZLOV, L.A., st. nauchn. sotr.; LETAVET, A.A., prof.;  
MARTSINKOVSKIY, B.I., prof. [deceased]; MOLOKANOV, K.P.,  
prof.; RASHEVSKAYA, A.M., prof.; SOSNOVIK, I.Ya., prof.  
[deceased]; SENKEVICH, N.A., dots.; EL'KIN, M.A., kand.  
med. nauk; RABEN, A.S., red.; SHATALOV, N.N., red.

[Occupational diseases; a manual for physicians] Profes-  
sional'nye bolezni; rukovodstvo dlia vrachei. 2., dop.  
izd. Moskva, Meditsina, 1964. 757 p. (MIRA 17:11)

1. Deystvitel'nyy chlen AMN SSSR (for Letavet).

MOTRENKO, A.I.; KAPLAN, Yu.G.

Mobile electric laboratory. Energ. i elektrotekh. prom. no.4:

64-67 Q-D '63.

(MIRA 17:10)

KAPLAN, Yu.I.

Calculation of the nonaxisymmetric state of cylindrical shells  
taking into consideration the elasticity of reinforcing transverse  
trusses. Izv.vys.ucheb.zav.;av.tekh.7 no.2:20-26 '64. (MIRA 17:9)

KAPLAN, Yu. I.

Analysis of the axisymmetric stressed state of cylindrical shells in the presence of discretely arranged transverses. Izv. vys. ucheb. zav.; av. tekhn. 6 no. 4: 70-78 '63. (MIRA 17:8)

L 8733-55 EWT(d)/EWT(m)/EWA(d)/EWP(k)/EWA(h) Pt-4/Feb ASD(f)/AFTC(p)

ACCESSION NR: AP4040968

S/0147/64/000/002/0020/0026

AUTHOR: Kaplan, Yu. I.

8

TITLE: Calculation of the non-axiosymmetrical stress state of cylindrical shells with consideration of the elasticity of the reinforcing ribs

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 2, 1964, 20-26

TOPIC TAGS: shell, cylindrical shell, nonaxiosymmetrical stress, rib elasticity, reinforcing rib

ABSTRACT: Using the methods developed in a previous paper (Yu. I. Kaplan, Raschet osesimmetrichnogo napryazhennogo sostoyaniya tsilindricheskikh obolechek pri naitchii diskretno raspolozhennykh uprugikh shpangoutov. IVUZ, "Aviatsionnaya tekhnika," no. 4, 1963), the author derives analogous results for non-axiosymmetrical strain. All the suppositions concerning the work of the transverse ribs and the general approach to the solution of the problem were outlined in the work referenced above. As a functional unknown in the solution of the problem by the energy method, the author adopts the sum moments in the longitudinal sections

$$M_{\varphi} = \sum_{n=2}^{\infty} \psi_n(x) \cos n\varphi. \quad (1)$$

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L 8735-65

ACCESSION NR: AP4040968

The application of the Euler equation leads to the following differential equation

$$\psi_n^{IV} + \frac{DRn^2(n^2-1)}{ERh_n^3} \psi_n + B_p = 0, \quad (2)$$

which is solved in the following form

$$\psi_n(x) = A_1 \Phi_0(x) + B_1 \Phi_1(x) + C_1 \Phi_2(x) + D_1 \Phi_3(x) + \Phi^*(x) \left[ - \frac{1}{\Phi_3^*(x=0)} 4k_n^3 \sum_{r=2}^m \frac{E'R_r}{D_R} \psi_n(x=a_{r-1}) \Phi_3(x-a_{r-1}) \right] \quad (3)$$

The transverse bending of cylindrical shells is considered and the equation is solved in the following form

$$+ 4k_n \int A_n(\tau) \Phi_1(x-\tau) d\tau \left[ - 4k_n \sum_{r=2}^m \frac{E'R_r}{D_R} \psi_n(x=a_{r-1}) \Phi_3(x-a_{r-1}) \right] \quad (4)$$

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I. 2733-65

ACCESSION NR: AP4040988

Solving for a non-symmetrical form of stability loss under the influence of axial forces, the general expression is written in the following form:

$$\psi_n(x) = A_1\Phi_0(x) + B_1\Phi_1(x) + C_1\Phi_2(x) + D_1\Phi_3(x) + \dots$$

$$+ \frac{1}{\lambda_n(\beta_{1n}^2 - \beta_{2n}^2)} 4k_n^4 \sum_{r=2}^m \frac{EIR_r}{DR} \psi_n(x - a_{r-1}) \Phi_3(x - a_{r-1}) \dots \quad (5)$$

while the general expression for stability in the case of the joint effect of uniform transverse pressure and axial compression is given as

$$\psi_n(x) = A_1\Phi_0(x) + B_1\Phi_1(x) + C_1\Phi_2(x) + D_1\Phi_3(x) + \dots$$

$$+ \frac{4k_n^4}{\lambda_n(\beta_{1n}^2 + \beta_{2n}^2)} \sum_{r=2}^m \frac{EIR_r}{DR} \psi_n(x - a_{r-1}) \Phi_3(x - a_{r-1}) \dots \quad (6)$$

The author has found that, for any number of elastic intermediate ribs, the problem reduces itself to no more than four constants, and in actual practice - to two (since the outer or extreme ribs are almost always sufficiently powerful), for which the system of equations may be written in a general form. Using different problems as examples, the author demonstrates the applicability of the method proposed for reaching a general solution. Orig. art. has: 1 table and 51 formulas.

Card 3/4



L 8733-65

ACCESSION NR: AP4040063

ASSOCIATION: none

SUBMITTED: 09Dec63

ENCL: 00

SUB CODE: AS

NO REF SOV: 001

OTHER: 000

Card 4/4

S/879/62/000/000/070/088  
D234/D308

AUTHOR: Kaplan, Yu. I. (Khar'kov)

TITLE: An engineer's method of design of toroidal shells

SOURCE: Teoriya plastin i obolochek: trudy II Vsesoyuznoy konfe-  
rentsii, L'vov, 15-21 sentyabrya 1961 g. Kiev, Izd-vo  
AN USSR, 1962, 394-395

TEXT: A summary describing a method in which the total moment in  
the meridian plane is expanded into a series; the coefficients of  
the expansion are used to express all other forces and are subse-  
quently determined by the energy method, from an infinite system  
of linear equations.

Card 1/1

KAPLAN, Yu.I., inzh. (Khar'kov)

Deformation of toroidal shells. Rasch. prostr. konstr. no.8:  
107-139 '62. (MIRA 16:6)

(Elastic plates and shells)

KAPLAN, Z. A.

DECEASED  
c. '62

1963/  
/4

Medicine  
Infectious diseases

GLEBOVSKAYA, Ye.A.; ZAKHAROV, A.A.; LAPINA, I.K.; KAPLAN, Z.G.

Absorption spectra of benzene in 5 - 6 region. VNIIGRI no.105:  
23-36. '57. (MIRA 11:9)

(Benzene--Spectra)

SHKLYAR, I.V.; KAPLAN, Z.G.

Luminescence and capillary properties of the petroleum fractions.  
VNIGRI no.105:37-50 '57. (MIRA 11:9)  
(Petroleum products) (Luminescence) (Capillarity)

KAPLAN, Z.G.; SHKLYAR, I.V.

Molecular weight determination of petroleum components by means  
of capillary extractions. VNIGRI no.105:51-57 '57. (MIRA 11:9)  
(Molecular weights) (Petroleum) (Extraction (Chemistry))

ADEL'BERG, I.M.; KAPLAN, Z.G.; KOLYADNYY, S.N.

Lithology of Neogene red beds in Turkmenistan. Geol.nefti i  
gaza 3 no.10:40-43 0 '59. (MIRA 12:12)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologo-  
razvedochnyy institut.  
(Turkmenistan--Clay)



CAPLIKAS, J.; KAPLANAS, J., red.; VYSOMIRSKIS, C., tekhn. red.

Kedainiai. Vilnius, Valstybine politines ir mokslines  
lit-ros leidykla, 1963. 47 p. (MIRA 17:4)

MESYS, J.; KAPLANAS, O., red.

Klaipeda. Vilnius, Mintis, 1964. 92 p. (MIA 18:12)

BUTKUS, Tadas Styapono; GERL'PERNAS, D. [translator]; KAPLANAS, O.  
red.

[Get acquainted with Soviet Lithuania. Translated from the  
Lithuania] Poznakom'tes' s Sovetskoi Litvoi. Vilnius,  
Mintis, 1965. 100 p. (MIRA 18:10)

MESYS, J.; KAPLANAS, O., red.

Klaipeda. Vilnius, Mintis, 1964. 93 p. [In Lithuanian]  
(MIRA 18:3)

KAPLANAS, V.I.

Woven artificial arteries. Tekst.prom. 24 no.1:28-29 Ja '64.

(MIRA 17:3)

1. Glavnyy inzh. tekstil'no-galantereynoy fabriki "Kaspinas".

KAPLANAS, V. I.

Beam frames without superstructure for narrow goods looms.  
Tekst. prom. 23 no.3:57-60 Mr '63. (MIRA 16:4)

1. Glavnyy inzhener Kaunasskoy tekstil'no-galantereynoy fabriki  
"Kaspinas".

(Looms)

KAPLAN-BANU, I.

MD ✓ The action of nucleic acids on metabolic processes of various organs. The amino acids of tissue proteins. Paper partition chromatography. I. Kaplan-Banu, E. Soru, and I. Albrecht. *Commun. Acad. Rep. Populare Romane* 2, 473-8(1952).—Albino rats received parenterally ribonucleic acid (RNA) and deoxyribonucleic acid (DNA). The treated animals and a group of untreated ones for control purpose were killed, and their livers, brains, muscles and pancreases were hydrolyzed. The hydrolyzates of both groups of animals were sepd. by paper-partition chromatography and compared. All organs contain the following amino acids: cysteine, lysine, histidine, arginine, aspartic acid, serine, glycine, glutamic acid, alanine, proline, tyrosine, valine, methionine, phenylalanine, and leucine. One rose spot obtained with ninhydrin could not be identified. The RNA treated animals (I) contained less tyrosine in the muscles than the untreated ones. There was more valine in the pancreases of the I than in the pancreases of the untreated and the DNA treated animals (II). The II showed more aspartic acid, serine, alanine, proline, and leucine in the brains, more tyrosine and leucine in the muscles and less leucine in the pancreas than the untreated ones. R. M.

KAPLAN-INGEL', R. I.

2/477 KAPLAN-INGEL', R. I. Zdaniye Kunstkamery-Kolybel' russkoy nauki i Muzey N. V. Lomonosova. (Leningrad). Priroda, 1949, No. 7, S. 82-87.

SO: Letopis, No. 32, 1949.



KAPLANETS, N.D., otv.red.; GUDKOV, F.F., otv.red.; RATNIKOVA, A.P.,  
red.izd-va; GALANOVA, V.V., tekhn.red.

[Instruction on safe work methods for stope mining in flat  
and inclined seams] Instruktsiia po bezopasnym metodam rabot  
dlia gornorabochego ochildnogo zaboia na pologikh i naklonnykh  
plastakh. Izd.2. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po  
gornomu delu, 1960. 46 p. (MIRA 14:3)  
(Stoping (Mining)--Safety measures)

KAPLANETS, N.D., otv. red.; GUDKOV, F.F., otv. red.; SHOROKHOVA, A.V.,  
red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Safety regulations for the loader-hauler] Instruktsiia po  
bezopasnym metodam rabot dlia nasypshchika-otkatchika. Odobrena  
Prezidiumom TsK Profsoiuza rabochikh ugol'noi promyshlennosti 11  
marta 1959 g. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gor-  
nomu delu, 1960. 26 p. (MIRA 15:1)  
(Coal mines and mining—Safety measures)

KAPLANETS, N.D., otv. red.; GUDKOV, F.F., otv. red.; RATNIKOVA,  
A.P., red. izd-va; GALANOVA, V.V., tekhn. red.

[Safety regulations for the miner working with a pick hammer in steep seams] Instruksia po vezopasnym metodam rabot dlia zaboishchika na otboinom molotke na krutykh plastakh. 2 izd. Odobrena Prezidiumom TsK Profsoiuza rabochikh ugol'noi promyshlennosti 11 marta 1959 g. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po.gornomu delu, 1960. 28 p.

(MIRA 15:1)

(Coal mines and mining --Safety measures)

KAPLANETS, N.D., otv. red.; GUDKOV, F.F., otv. red.; RATNIKOVA, A.P.,  
red. izd-va; GALANOVA, V.V., tekhn. red.

[Safety regulations for 1st and 2d class miners] Instruksia  
po bezopasnym metodam rabot dlia gornorabocheho I i II raz-  
riadov. 2. izd. Odobrena Prezidiumom TsK Profsoiuza rabochikh  
ugol'noi promyshlennosti 11 maia 1959 g. Moskva, Gos.nauchno-  
tekhn.izd-vo lit-ry po gornomu delu, 1960. 50 p.

(MIRA 15:1)

(Coal mines and mining—Safety measures)

ACC NR: AP7002621 (A,N) SOURCE CODE: UR/0413/66/000/023/0101/0136

INVENTOR: Pogibko, M. G.; Kaplanets, Yu. N.; Ivannikov, V. K.

ORG: None

TITLE: A device for checking, signalling and controlling the temperature of liquid and gaseous explosive media. Class 74, No. 189333 [announced by the Donetsk Scientific Research and Design Institute for Automation of Mining Machinery (Donetskiy nauchno-issledovatel'skiy i proyektnyy institut avtomatizatsii gornykh mashin)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 138

TOPIC TAGS: temperature control, temperature measurement, explosive, electronic measurement

ABSTRACT: This Author's Certificate introduces a device for checking, signalling and controlling the temperature of liquid and gaseous explosive media. The unit contains a sensing element in the form of a set of thermistors, each of which is connected to one of the arms of an unbalanced bridge. The device also contains sparkless non-contact relays with transistorized blocking generators, a power supply and a meter. The design provides for high sensitivity and fairly strong control signals with relay characteristics. These signals may be used for direct control of actuating mechanisms. The transistors, which act as nonlinear resistors, have their inputs connected to unbalanced bridges while their outputs are connected to the relay control windings which serve for both starting and stopping.

SUB CODE: 19.09 / 64 / SUBM DATE: 29Oct62

Card 1/1

UDC: 536.587.082.64

0930 2739

KAPLANOV, G.I.

Possibilities of defining with greater accuracy the stressed-strained state during two-line rolling. Sbor.trud. UNIIM  
no.11:150-163 '65.

(MIRA 18:11)

L 07441-67 EWP(k)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6030439

SOURCE CODE: UR/0420/66/000/006/0102/0106

AUTHOR: Kaplanov, G. I.

ORG: None

TITLE: Velocity field for the case of two-dimensional rolling

SOURCE: Samoletostroyeniye i tekhnika vozdušnogo flota, no. 6, 1966, 102-106

TOPIC TAGS: flow velocity, metal deformation, metal rolling

ABSTRACT: The author considers the steady-state process of two-dimensional rolling where plastic deformation by compression takes place throughout the entire cross section of the workpiece. A method is proposed for determining the velocity field of the metal particles in the deformation zone on the basis of an experimental evaluation of the relationship between the velocities of the points and their coordinates combined with a solution of the continuity equation of the medium with the appropriate boundary conditions. Expressions are derived for the various velocity components in the bipolar coordinate system. Graphs are given showing the distribution of the longitudinal components of absolute velocities with respect to the height of cross sections in various zones of the deformation region plotted from the final expression derived by the author for these components in the two-dimensional case. The results show qualitative agreement with experimentally confirmed curves for horizontal velocities under these rolling conditions. Orig. art. has: 1 figure, 13 formulas.

SUB CODE: 11/<sup>3</sup> SUBM DATE: none/ ORIG REF: .005

Card 1/1

39  
B

L 24781-66 EWT(m)/EWP(w)/T-2/EWP(t)/EWP(k)/ETC(m)-6 IJP(c) JD/WW/HW/EM

ACC NR: AP6007898 SOURCE CODE: UR/0420/65/000/002/0682/0089

41  
40  
B

AUTHOR: Kaplanov, G. I.

ORG: none

TITLE: The stress-strain state during two-dimensional reduction

SOURCE: <sup>26</sup>Samolestroyeniye i tekhnika vozdushnogo flota, no. 2, 1965, 82-89

TOPIC TAGS: mechanical stress, compressive stress, solid mechanics, metal stress

ABSTRACT: The author investigates the solution to the problem of two-dimensional reduction of a rectangular parallelepiped solid slab of metal between plane-parallel rough plates employing general equations of mechanics of continuous media. Assuming a parabolic nature of the distribution of the horizontal components of the particle velocities along the height of the solid, and using boundary conditions for the region of stagnation, the velocity field of the motion of various points are determined as:

$$v_y = -\frac{3}{2} \frac{v_0}{x_h} y \left(1 - \frac{x^2}{x_h^2}\right); v_x = 0;$$

$$v_x = \frac{3}{2} \frac{v_0}{x_h} x \left(1 - \frac{x^2}{3x_h^2}\right).$$

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ACC NR: AP6007898

These conclusions agree with the experimental data. As a result of the application of the general equations of the mechanics of continuous media to the analysis of the process of reduction under specified conditions, the tangential and the normal stresses were determined for every point of the deformed solid. The theoretical curve of the normal contact stresses, calculated according to the formula

$$\sigma_{xx} = \sigma_{xx}^E - \frac{\sigma_s}{\sqrt{3}} \left[ \frac{x_k y_E}{4x_k^2 - y_E^2} + \frac{x_k^4 (4x_k^2 - y^2) - 2x_k^2 x^2 (x_k^2 + x^2)}{x^3 (4x_k^2 - y^2) \sqrt{(x_k^2 - x^2)^2 + x^2 y^2}} + \frac{x_k^2 - x^2}{\sqrt{(x_k^2 - x^2)^2 + x^2 y^2}} + \frac{1}{2} \operatorname{Arsh} \frac{y_E}{\sqrt{4x_k^2 - y_E^2}} - \frac{1}{2} \operatorname{Arsh} \frac{y^2 - 2(x_k^2 - x^2)}{y \sqrt{4x_k^2 - y^2}} \right]$$

agrees with the experimental data of Ye. P. Unksov (Inzhenernyye metody rascheta uzilly pri obrabotke metallov davleniyem. Mashgiz, 1955). Orig. art. has: 4 figures and 29 formulas.

Metal working

SUB CODE: 207 SUBM DATE: none / ORIG REF: 004

Card 2/2 *MMS*

KAPLANOV, LEV. Georgiyevich; OGNEV, S.I., prof., red; GEPTNER, V.G.  
prof., red.; ENDEL'MAN, G.N., vedushchiy red.

[Tiger, wapiti, elk] Tigr, iziubr', los'. Moskva, Izd-vo Mosk.ob-va  
prirody, 1948 128 p. (Materialy k poznaniyu fauny i flory SSSR.  
Otdel zoologicheskii, no.14) (MIRA 11:3)  
(Sikhote-Alin Range--Tigers)  
(Sikhote-Alin Range--Deer)

Kaplanov, M.R.

AUTHOR: Not Given.

PA - 2021

TITLE: New Books.

PERIODICAL: Radiotekhnika, 1957, Vol 12, Nr 1, p 81 (U.S.S.R.)

Received: 2 / 1957

Reviewed: 3 / 1957

ABSTRACT: M.I.VITENBERG: Computation of electromagnetic relays for apparatus of automation and communication. Gosenergoizdat, M.L.1956, 464 pages, price 14.50 roubles.

Theory and computation of the electromagnetic relays of parallel- and alternating current for apparatus of automation and communication. Analytical and graphoanalytical methods of computations, constructions, test data. The book is destined to be used by engineers and technical engineers.

M.P.KAPLANOV. V.A.LEVIN: The automatic foundation of frequency, 2.enlarged edition. Gosenergoizdat, M.L. 1956, 200 pages, price 11.50 roubles.

Description and classification. Computation formulae for construction. The book is for radio specialists and advanced university students.

The Successes attained by Electrovacuum Engineering, edited by Prof. G.A.TJAGUNOV, L.M.Gosenergoizdat, 1956, 256 pages, price 10.25 roubles. A collection of articles on the types, computation methods, properties, and physical phenomena of some new types of electrovacuum de-

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Card 2/2

KAPLANOV, Murad Rashidovich; LEVIN, Viktor Aronovich: Prinimali uchastiye:  
KAGANOV, V.I.; NEMIROVSKIY, M.S.; MOZH'HEVELOV, B.N., red.;  
LARIONOV, G.Ye.G., tekhn. red.

[Automatic frequency control] Avtomaticheskaya podstroika cha-  
stoty. Izd. 3., dop. Moskva, Gosenergoizdat, 1962. 319 p.  
(MIRA 15:9)

(Frequency regulation)

(Radio)

YEFIMENKO, S.P.; KAPLANOV, V.I.

Defects in sheet cut on a transverse cutting unit. Metallurg 10  
no.3:31 Mr '65. (MIRA 18:5)

1. Zamestitel' nachal'nika tsekha kholodnoy prokatki zavoda im.  
Il'icha (for Yefimenko). 2. Nachal'nik tekhnicheskogo byuro  
zavoda im. Il'icha (for Kaplanov).

KAPLANOV, V.I.

Some remarks on the design of continuous pickling units. Metallurg  
9 no.3:28-29 Mr '64. (MIRA 17:3)

1. Nachal'nik tekhnologicheskogo byuro tsekha kholodnoy prokatki  
zavoda im. Il'icha.

YEFIMENKO, S.P.; KAPLANOV, V.I.

Mastering the operation of high-speed four-stand mills for cold  
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(MIRA 18:8)

GVOZDJAK, J.; NIEDERLAND, T.R.; BACHLEDOVA, E.; TOMIK, F.; FEDORCAKOVA, A.;  
KRAMAR, T. Technical assistance: KAPLANOVA, M.

Experimental cardiomyofibrosis produced by diet (ECFD). I. Changes  
in carbohydrate metabolism of the myocardium in dynamic develop-  
ment. Cor. vasa 6 no.2:153-158 '64.

Experimental cardiomyofibrosis produced by diet (ECFD). II.  
Changes in lipid metabolism in the myocardium. Ibid.:159-163  
'64.

1. Research Laboratory of Pharmacobiochemistry, IIIrd Internal  
Clinic, Faculty of Medicine, Komensky University, Bratislava,  
Czechoslovakia.

\*



GVOZDJAK, J.; NIEDERLAND, T.R.; Techn. spoluprac. M. KAPLANOVA

Effect of chronic intermittent administration of digitoxin  
on carbohydrate metabolism. Bratisl. Lek. Listy 44 no.9:  
449-453 '64.

1. Vedecke laboratorium farmakobiochimie Lek. fak. Univerzity  
Komenskeho v Bratislave (veduci prof. MUDr. Niederland, T.R.,  
Dr.Sc.).

GVOZDJAK, J.; NIEDERLAND, T. R., with the technical assistance of KAPLANOVA, M.

The effect of digitoxin on the lipid metabolism of myocardium and striated muscle. Cor vasa 4 no.2:154-160 '62.

1. The Pharmacobiochemical Laboratory of the III Internal Clinic, Medical Faculty, Comenius University, Bratislava, Czechoslovakia.

(MYOCARDIUM metab) (MUSCLES metab)  
(LIPIDS metab) (DIGITALIS pharmacol)

GVOZDJAK, J.; FEDORCAKOVA, A.; BACHLEDOVA, E.; NIEDERLAND, T.R.;  
Technicka spolupraca: KAPLANOVA, M.; FADICOVA, L.

On biochemical changes of the rat myocardium in late ontogenesis  
during experimental cardiomyofibrosis. Bratisl. lek. listy 45  
no.6:334-338 30 S '65.

1. III. interna klinika Lek. fak. Univerzity Komenskeho v Brati-  
slave (veduci prof. MUDr. T.R. Niederland, DrSc.).

GVOZDJAK, J.; NIEDERLAND, T. R., with the technical assistance of KAPLANOVA, M.

The effect of digitoxin on protein content in the myocardium, striated muscle and liver of the rat. Cor vasa 4 no.2:161-164 '62.

1. The Pharmacobiochemical Laboratory of the III Internal Clinic, Medical Faculty, Comenius University, Bratislava, Czechoslovakia.

(DIGITALIS pharmacol) (PROTEINS metab)  
(MYOCARDIUM metab) (MUSCLES metab)  
(LIVER metab)

GVOZDJAK, J.; With the technical assistance of: KAPLANOVA, M.

The dynamics of myocardial glycogen content during chronic administration of digitoxin. Cor vasa 5 no.3:220-224 '63.

1. Research Laboratory of Pharmacobiochemistry, IIIrd Internal Clinic, Komensky University, Bratislava, Czechoslovakia.

(MYOCARDIUM) (CARBOHYDRATE METABOLISM)

(GLYCOGEN) (DIGITOXIN)

GVOZDĀK, J.; with the technical assistance of: KAPLANOVA, M.

The behaviour of myocardial lipids during chronic administration of digitoxin. Cor vasa 5 no.3:225-229 '63.

1. Research Laboratory of Pharmacobiochemistry, IIIrd Internal Clinic Medical Faculty, Komensky University, Bratislava, Czechoslovakia.

(MYOCARDIUM) (LIPID METABOLISM)  
(FATTY ACIDS) (CHOLESTEROL)  
(PHOSPHOLIPIDS) (DIGITOXIN)

ALIYEV, V.S.; ALIYEV, Z.E.; KASIMOVA, A.P.; KAPLANOVA, V.D.;  
MURAVCHIK, M.Ye.; TER-SARKISOV, B.G.

Preliminary preparation of the dehydrating K-5 catalyst before  
its introduction into the reactor. Azerb.neft.khoz. 41 no.8:  
35-39 Ag '62. (MIRA 16:1)

(Catalysts)

ALIYEV, V.S.; KASIMOVA, A.P.; KYAZIMOV, Sh.K.; KAPLANOVA, V.O.

Study and development of the process of dehydrogenation  
of propane into propylene. Azerb.khim.shur. no:2:49-60  
'59. (MIRA 13:6)

(Propane) (Propene)



KAPLANOVICH, S.L.  
14(8); 25(5)

PHASE I BOOK EXPLOITATION

SOV/1646

Tsetlin, Boris Viktorovich, and Semen Lipovich Kaplanovich

Okhrana truda pri ekspluatatsii promyshlennykh predpriyatiy;  
prakticheskoye rukovodstvo (Plant Safety in Industrial Establish-  
ments; Practical Guide) Moscow, Koiz, 1958. 345 p.. 20,000 copies  
printed.

Ed.: Ye.N. Blinder; Tech. Ed.: N.P. Tsirul'nitskiy.

PURPOSE: This industrial safety manual is intended for personnel in  
producers' cooperative establishments and local industries.

COVERAGE: The manual emphasizes the safe operational aspects of  
industrial equipment employed in metal working establishments.  
It describes such items as the basic legislation on labor safety,  
maintenance of industrial buildings, general safety measures,  
and personal protective equipment. It outlines precautions that  
should be taken when operating electrical and hoisting devices,  
machine tools, boilers and pressure vessels, furnaces and ovens,

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Plant Safety in Industrial (Cont.)

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and gas and electric welding equipment. Measures to be taken when handling inflammable liquids, chemicals, plastics, and glues are also discussed. The concluding chapter is devoted to First Aid. Chapters II, X, and XVII were written by S.L. Kaplanovich, Chapters III and XI were written jointly by S.L. Kaplanovich and B.V. Tsetlin, and the remaining chapters were written by B.V. Tsetlin. There are no references. No personalities are mentioned.

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3. Rules and standards on safety engineering and industrial sanitation	11
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Card 2/10

KAPLANS, B.

"On the problem of the preinvasive carcinoma of the cervix: microscopic diagnosis"

Report submitted to the International Conference on Morphological Precursors of Cancer, Perugia, Italy, 26-30 Jun 1968

DASHEVSKIY, A.I.; KAPLANSKAYA, R.L.

Significance of works of S.V. Kravkov's laboratory on the vegetative nature of the color perception apparatus of the eye in clinical practice in the field of glaucoma. Probl. fiziol.opt. 11: 185-198 '55. (MIRA 9:6)

1. Glaznaya klinika Dnepropetrovskogo meditsinskogo instituta.  
(GLAUCOMA, physiology,  
eff. of green & red on intraocular pressure (Rus))  
(COLOR, effects,  
green & red on intraocular pressure in glaucoma (Rus))