

POLYAKOVA, A.

Fifteenth anniversary of People's Albania. Vnesh. torg. 29
no.12:28-29 '59. (MIRA 12:12)
(Albania--Economic conditions)

NIKOLAYEVA, V.G.; ZIMINA, K.I.; POLYAKOVA, A.A.

Analysis of the composition of gasoline produced from Zhirnevskaja
petroleum. Khim.i tekhnol., no.2:23-26 F '56. (MIRA 9:9)
(Gasoline--Analysis) (Zhirnevskaja--Petroleum products)

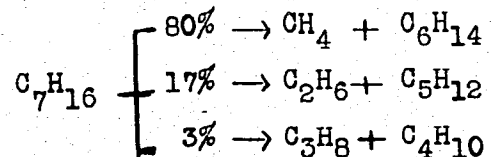
POLYAKOV, A. A.

AUTHORS: Tilicheyev, M. D., ~~Deceased~~, and ... 65-1-8/14
 TITLE: ~~The Destructive Hydrogenation of n-Heptane and n-Hexadecane in the Presence of a Nickel Catalyst.~~ (Destruk-tivnaya gidrogenizatsiya n-geptana i n-geksadekana v prisutstvii nikelovogo katalizatora).
 PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.1. pp.40-47. (USSR).
 ABSTRACT: The destructive hydrogenation of n-alkanes (n-heptane and n-hexadecane) was investigated to ascertain the structure of the formed products. The properties of the initial hydrocarbons are tabulated (Table 1). The destructive hydrogenation was carried out in an autoclave at high pressures. Temperatures were measured with a chromel-alumel thermocouple. Fig.1 gives a diagram of the experimental apparatus used for the destructive hydrogenation of n-alkanes and Fig.2 shows a scheme of the investigations. It was found that when n-heptane was heated to 400 - 425°C under pressure in the presence of a Raney Nickel catalyst a hydrogenolysis reaction takes place; no isomerisation, cyclisation or polymerisation processes occur. The hydrogenolysis of n-heptane occurs at a thirty times greater rate than thermo-cracking

Card 1/3

The Destructive Hydrogenation of n-Heptane and n-Hexadecane in the Presence of a Nickel Catalyst.

reactions at the same temperature. In the initial stages of hydrogenolysis n-heptane undergoes the following reactions:-



During the 40% conversion of n-heptane (in the presence of a catalyst) the yield of n-hexane constituted 56.3% and that of n-pentane 18.7% (Tables 2 and 3). The destructive hydrogenation of n-hexadecane, in the presence of a Raney Nickel catalyst at 400°C to 425°C in the liquid phase proceeds at a six times slower rate than the thermo cracking at the same temperature. During the destructive hydrogenation of n-hexadecane, under the experimental conditions described above, n-alkanes of low molecular weight are formed; no isomerisation, cyclisation and polymerisation reactions could be ob-

Card 2/3

POLYAKOVA A. A.

РАБОТЫ РАБОТНИКОВ УЧЕБНО-НАУЧНОГО
ЦЕНТРА ХИМИИ И ТЕХНОЛОГИИ
А. А. ПОЛЯКОВА, Е. Е. ЗОЛОВА, А. А. ПОЛЯКОВ,
С. С. ПОЛЯКОВ

МАСС-СПЕКТРОМЕТРИЧЕСКИЙ МЕТОД
ОПРЕДЕЛЕНИЯ СТРУКТУРНО-ГРУППОВОГО СОСТАВА
БЕНЗИНОВ
А. А. ПОЛЯКОВ, Е. Е. ЗОЛОВА, А. А. ПОЛЯКОВ

VIII Mendeleev Congress for General and Applied Chemistry in
Section of Chemistry and Chemical Technology of Fuels,
publ. by Acad. Sci. USSR, Moscow 1979

abstracts of reports scheduled to be presented at above mentioned congress,
Moscow, 15 March 1979.

ZIMINA, K.I.; POLYAKOVA, A.A.

Analysis of hydrocarbon systems from mass spectra. Itogi
nauki: Khim.nauki 4:208-218 '59. (MIRA 13:4)
(Hydrocarbons--Spectra) (Mass spectrometry)

SOV/20-127-2-42/70

5(4)

AUTHORS:

Polyakova, A. A., Zimina, K. I., Petrov, A. A.,
Khmelnitskiy, R. A.

TITLE:

Mass Spectra and Structure of Vinyl Acetylene Hydrocarbons

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 2, pp 386-388
(USSR)

ABSTRACT:

Investigations of relations existing between physical properties influencing structure and reactivity supply data for infrared spectra (Ref 2), Raman spectra (Ref 3), and dipole moments (Ref 4). Results obtained from investigations with the MS-1 mass spectrograph are reported here. The mass spectra of vinyl acetyl and of its three monomethyl derivatives were taken. Results are specified in table 1. Maximum intensity is exhibited by the molecular ion. The most intense split ions are produced by the rupture of the C-H bond. Split ions produced by the rupture of the C-C bond are not typical of these compounds. Unlike piperylene and isoprene, the introduction of a methyl radical decreases but little the stability of the molecular ion. The normal chain isomers differ from isopropyl acetylene by a greater intensity of the peak 63 ($C_5H_7^+$ -Ion).

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Mass Spectra and Structure of Vinyl Acetylene Hydrocarbons SOV/20-127-2-42/70

A striking fact is that the greatest stability is exhibited by those split ions which have conjugate bonds. It would be interesting to compare these properties with data concerning the kinetics of the ion reactions of vinyl acetylenes. Unfortunately, there are no such data available in publications. There are 1 table and 6 references, 5 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-Union Scientific Research Institute for Petroleum and Gas Refining and Production of Synthetic Liquid Fuels)

PRESENTED: March 26, 1959, by B. A. Arbuzov, Academician

SUBMITTED: March 21, 1959

Card 2/2

TARASOV, Aleksey Issarionovich. Prinimali uchastiye: KUZ'MINA, A.V.;
ZIMINA, K.I.; POLYAKOVA, A.A.; IOGANSEN, A.V.; PROLOVSKIY, P.A.;
LULOVA, N.I.; L'VOVA, L.A., vedushchiy red.; MUKHINA, E.A.,
tekh.n.red.

[Gases obtained in petroleum refining and methods of their
analysis] Gazy neftepererabotki i metody ikh analiza. Moskva,
Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960.
222 p. (MIRA 13:2)

(Petroleum--Refining)

(Gases--Analysis)

53620

1220

31545
S/081/61/000/022/001/076
B102/B108

AUTHORS: Zimina, K. I., Obolentsev, R. D., Polyakova, A. A.,
Khmel'nitskiy, R. A.

TITLE: Mass spectra of some homologs of thiophane

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 12-13,
abstract 22B72 (Sb. "Khimiya sera-i azotorgan. soyedineniy,
soderzhashchikhsya v neft'yakh i nefteproduktakh", Ufa, v. 3,
1960, 81-92

TEXT: The mass spectra of α -alkyl thiophanes with radicals of normal structure from C_1 to C_6 were studied by means of an MC-1 (MS-1) mass spectrometer. Total ionization caused by 70-ev electrons was studied as dependent on the molecular weight of the substance investigated: It is shown that the total quantity of molecules and fragmentary ions increases linearly with increasing molecular weight. The total ionization value measured for thiophenes makes it possible to carry out an analysis of the structural groups of heterocyclic compounds. The ionization potentials of thiophanes were determined approximately. They were found to decrease

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X

Mass spectra of some homologs ...

31545
S/081/61/000/022/001/076
B102/B108

(from 9.5 ev for C₁ to 8 ev for C₆) with increasing length of the chain of the alkyl radical. The mass spectra of the alkyl thiophanes were all characterized by the presence of an intense peak at the mass 87 which permits identifying these compounds. [Abstracter's note: Complete translation.]

Card 2/2

5.3300

78281

SOV/79-30-3-35/69

AUTHORS: Polyakova, A. A., Zimina, K. A., Petrov, A. A.,
Khmel'nitskiy, R. A.

TITLE: Mass Spectra of Vinylalkylacetylenes

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3,
pp 912-918 (USSR)

ABSTRACT: The mass spectra of the following vinylalkylacetylenes were studied: pent-1-en-3-yne, hex-1-en-3-yne, and dec-1-en-3-yne. The results of this work are given in Table A. The stability of the ion molecule decreases and that of ion fragments increases with the increase of alkyl radical. Among ion fragments formed with the rupture of C - C bond the following types of ions predominate: $C_nH_{2n-3}^+$, $C_nH_{2n-5}^+$, $C_nH_{2n-7}^+$, and $C_nH_{2n-4}^+$. A rupture of bond to a conjugated system is characteristic for higher vinylalkylacetylenes. Carbon-carbon bond (to conjugated system) is less stable to electron bombardment. The ions of the type $C_nH_{2n-4}^+$

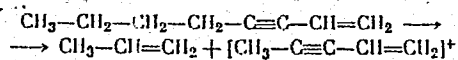
Card 1/4

Mass Spectra of Vinylalkylacetylenes

78281

SOV/79-30-3-35/69

can originate as a result of rearrangement processes related to hydrogen migration. For $C_5H_6^+$ it will be



There is 1 table; and 5 references, 3 Soviet, 1 German, 1 U.S. The U.S. reference is: American Petroleum Institute Research, Project 44, Mass-Spectral data, N. Y.

SUBMITTED: March 28, 1959

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Table A. Mass spectra of vinylalkylacetylenes: 78281 30N/79-91-3-55/69

MASS AND COMPOSITION OF FRAGMENT	ION INTENSITY				
	$\text{HC}\equiv\text{C}-\text{CH}=\text{CH}_2$	$\text{CH}_3-\text{C}\equiv\text{C}-\text{CH}=\text{CH}_2$	$\text{C}_2\text{H}_5-\text{C}\equiv\text{C}-\text{CH}=\text{CH}_2$	$\text{C}_4\text{H}_7-\text{C}\equiv\text{C}-\text{CH}=\text{CH}_2$	$\text{C}_6\text{H}_9-\text{C}\equiv\text{C}-\text{CH}=\text{CH}_2$
12 C ⁺	1.5	0.9	—	—	—
13 CH ⁺	1.3	—	—	—	—
14 CH ₂ ⁺	1.2	—	—	—	—
15 CH ₃ ⁺	0.4	2.0	15.3	9.3	—
25 C ₂ H ⁺	3.6	1.6	1.4	—	—
26 C ₂ H ₂ ⁺	11.0	3.8	18.1	7.8	—
27 C ₂ H ₃ ⁺	2.0	8.3	52.6	78.2	—
28 C ₂ H ₄ ⁺	0.5	—	—	—	—
36 C ₃	1.5	1.7	—	—	5.4
37 C ₃ H ⁺	5.1	9.5	4.1	—	0.1
38 C ₃ H ₂ ⁺	2.2	17.0	9.1	9.7	48.5
39 C ₃ H ₃ ⁺	0.8	91.5	59.6	100.0	12.2
40 C ₃ H ₄ ⁺	0.6	—	—	23.7	63.8
41 C ₃ H ₅ ⁺	—	1.8	15.0	67.3	9.4
42 C ₃ H ₆ ⁺	—	—	1.1	3.0	48.8
43 C ₃ H ₇ ⁺	—	1.0	1.5	33.3	—
48 C ₄ ⁺	2.8	—	—	—	—
49 C ₄ H ⁺	13.0	4.0	2	—	7.0
50 C ₄ H ₂ ⁺	41.9	10.0	20.6	12.5	19.4
51 C ₄ H ₃ ⁺	50.2	17.0	27.7	27.6	13.2
52 C ₄ H ₄ ⁺	100.0	—	27.0	16.3	16.9
53 C ₄ H ₅ ⁺	4.4	—	16.4	14.8	3.7
54 C ₄ H ₆ ⁺	—	—	5.5	2.4	23.1
55 C ₄ H ₇ ⁺	—	—	2.9	3.3	6.7
56 C ₄ H ₈ ⁺	—	—	2.0	3.6	4.0
57 C ₄ H ₉ ⁺	—	—	0.7	—	—

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(Table A cont'd)

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	$C\equiv C-CH=$	$C_2H_5-C\equiv C-CH$	$C_3H_7-C\equiv C-CH=CH_2$	$C_4H_9-C\equiv C-CH=CH_2$
60	C ₅ H ₈	—	0.4	—
61	C ₅ H ₁₀	12.0	3.6	—
62	C ₅ H ₁₂	15.0	8.7	6.4
63	C ₅ H ₁₄	21.9	18.5	21.4
64	C ₅ H ₁₆	—	4.5	7.5
65	C ₅ H ₁₈	—	42.8	56.6
66	C ₅ H ₂₀	100.0	2.0	58.4
67	C ₅ H ₂₂	—	0.6	15.7
68	C ₅ H ₂₄	—	—	—
75	C ₆ H ₁₀	—	5.4	—
77	C ₆ H ₁₂	—	68.1	83.2
78	C ₆ H ₁₄	—	18.5	23.4
79	C ₆ H ₁₆	—	100.0	85.4
80	C ₆ H ₁₈	—	83.2	18.1
81	C ₆ H ₂₀	—	4.6	—
91	C ₇ H ₁₂	—	—	38.0
92	C ₇ H ₁₄	—	—	—
93	C ₇ H ₁₆	—	—	64.7
94	C ₇ H ₁₈	—	—	—
95	C ₇ H ₂₀	—	—	—
106	C ₈ H ₁₂	—	—	—
106	C ₈ H ₁₄	—	—	—
107	C ₈ H ₁₆	—	—	—
108	C ₈ H ₁₈	—	—	22.5
121	C ₁₀ H ₁₆	—	—	—
136	C ₁₀ H ₁₈	—	—	—

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POLYAKOVA, A.A.; ZIMINA, K.I.; PETROV, A.A.; KHMEL'NITSKIY, R.A.

Mass spectra and structure of some allene hydrocarbons. Zhur. ob.
khim. 30 no.9:2977-2983 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i Leningradskiy tekhnologicheskiy institut imeni
Lensoveta.

(Allene--Spectra)

(Hydrocarbons--Spectra)

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2209, 1290, 1273 only

S/O20/60/134/004/013/023
B016/B060

AUTHORS: Polyakova, A. A., Zimina, K. I., Petrov, A. A., and Khmel'nitskiy, R. A.

TITLE: Mass Spectra²¹ and Structure of Silicon-containing Vinyl Acetylenes¹

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4, pp. 833 - 835

TEXT: The authors have previously proved (Ref. 1), by studying mass spectra of vinyl acetylene and its analogs, the interdependence between the intensities of the molecular ion and some split-off ions, on the one hand, and the structure of the hydrocarbons, on the other. The present work was conducted to examine the mass spectra of four enin-silicon hydrocarbons: 1-trimethyl-silyl-buten-3-ine-1 (I), 1-trimethyl-silyl-3-methyl-buten-3-ine-1 (II), 1-trimethyl-silyl-penten-3-ine-1 (III), and 1-triethyl-silyl-buten-3-ine-1 (IV). In contrast with vinyl acetylene hydrocarbons, the process of dissociative ionization of their silicon-containing derivatives is exclusively selective (Table 1). Under the action of an electronic impact, the molecule

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Mass Spectra and Structure of Silicon-
-containing Vinyl AcetylenesS/O20/60/134/004/013/023
B016/B060

of (I) mainly undergoes the dissociation of a single methyl radical. While the molecular ion with mass 124 has the highest intensity, 48% of the total ion current falls to the ion with mass 109. The further dissociation gives rise to silicon-containing ions with masses 93, 83, 81, 79, 69, 55, and intensities from 3 to 15%. This dissociation takes place by the successive splitting off of CH- , CH_2^- , or CH_3 groups. There can be no doubt about the presence of silicon in these ions. The dissociation of the two closest-related homologs of (I), namely, (II) and (III), proceeds along a similar pattern. In both these homologs, the most resistant ions were found to be those with mass 123 which result from the splitting of the methyl radical from the molecular ion. In the case of (II) and (III), the further dissociation is even less distinctly marked than in the case of (I). 68 - 71% of the total intensity of ions falls to ions with mass 123. $(\text{CH}_3)_3\text{Si}^+$ ions with mass 73 are the most intensive in the spectrum of the saturated analog of (I), viz., trimethyl butyl silane. The splitting-off of methyl groups takes place to a much lower extent. The ions representing this direction of dissociation in the spectrum are $(\text{CH}_3)_2\text{Si}^+\text{H}$ ions with mass 59. The remaining ions in the spectrum of trimethyl butyl silane have a very low

Card 2/3

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 9:
Mass spectra and structure of C_6H_6 hydrocarbons (1,3- and
2,4-hexadien-3-yne). Zhur. ob. khim. 34 no. 5:1484-1487
My '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i Leningradskiy tekhnologicheskii institut imeni
Lenina.

ULANOVA, M.F.; RAPOPORT, I.B.; POLYAKOVA, A.A.; ITSIKSON, T.M.

Composition of esters obtained in the synthesis from Co and H₂ on
an iron-copper catalyst. Neftekhimiia 1 no.5:653-660 S=O '61.
(MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i iskusstvennogo zhidkogo topliva.
(Esters) (Carbon monoxide) (Hydrogen)

POLYAKOVA, A.A.; ZIMINA, K.I.; PETROV, A.A.; KHMEL'NITSKIY, R.A.

Mass-spectra and structure of organic compounds. Part 5:
Mass-spectra of enyne hydrocarbons with a tertiary butyl
radical at multiple bonds. Izv. vys. ucheb. zav.; khim.
i khim. tekh. 4 no. 2:321-324 '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pereabotke
nefti i gaza i Leningradskiy tekhnologicheskoy institut im.
Lensoveta. Kafedra organicheskoy khimii.
(Hydrocarbons--Spectra)

KHMEL'NITSKIY, R.A.; ZIMINA, K.I.; POLYAKOVA, A.A.

Mass spectrum analysis of gasolines. Khim.i tekhn.topl.i masel 6
no.6:55-60 Je '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i polucheniya iskusstvennogo zhidkogo topliva.
(Gasoline—Spectra)

POLYAKOVA, A.A.; PETROV, A.A.

Characteristics of the mass spectra of enyne hydrocarbons containing
a tert-butyl radical. Zhur.ob.khim. 30 no.10:3499-3500 0 '61.

(MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i Leningradskiy tekhnologicheskii institut imeni Lensoveta.
(Unsaturated compounds--Spectra)

POLYAKOVA, A.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 6: Mass spectra of alkenylvinylacetylenes. Zhur. ob. khim. 31 no. 11:3515-3521 N '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i Leningradskiy tekhnologicheskiiy institut imeni Lensoвета.

(Acetylena--Spectra)

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.

Certain regularities in mass spectra of monoclefins. Zhur.ob.
khim. 31 no.12:4059-4060 D. '61. (MIRA 15:2)
(Olefins)
(Mass spectrometry)

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.

Mass spectrum analysis of five-membered and six-membered naphthene hydrocarbons in gasolines. Zhur.prikl.khim. 34 no.7:1569-1572 J1 '61. (MIRA 14:7)

(Hydrocarbons--Spectra) (Gasoline)

POLYAKOVA, A.A.; KHMEI'NITSKIY, R.A.

Mass spectrometry method for determining paraffinic hydrocarbons
of normal and branched structure. Khim.i tekhn. topl.i masel 7
no.8:70-3 of cover Ag '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Paraffins) (Mass spectrometry)

POLYAKOVA, A.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 7: Mass spectra of 1-tert,-1,3-alkylbutadienes. *Zhur.ob.khim.* 32 no.5:1415-1418 My '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti gaza i Leningradskiy tekhnologicheskii institut imeni Lensoвета.

(Butadiene--Spectra)

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 10: Mass spectra of nonconjugated 1,5-diyne hydrocarbons. Zhur. ob. khim. 34 no.10:3296-3300 0 '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefi i gaza i Leningradskiy tekhnologicheskiiy institut imeni Lensoveta.

L 34136-65 EWT(m)/EPF(c) Pr-4 GS/RM

ACCESSION NR: AT5006092

S/0000/64/000/000/0229/0235

AUTHOR: Polyakova, A. A.; Khmel'nitskiy, R. A.; Petrov, A. A.

TITLE: Mass spectra and structure of hydrocarbon molecules with multiple bonds

SOURCE: Soveshchaniye po fizicheskim metodam issledovaniya organicheskikh sovedineniy i khimicheskikh protsessov. Frunze, 1962. Trudy. Frunze, Izd-vo Ilim, 1964, 229-235

TOPIC TAGS: hydrocarbon, mass spectrum, hydrocarbon structure, molecular rearrangement, ionizing electron, unsaturated hydrocarbon

ABSTRACT: The work is devoted to a study of rearrangements occurring in the mass spectrometer during the interaction between ionizing electrons and hydrocarbon molecules of various types undergoing dissociative ionization. The investigated hydrocarbons were unsaturated and ranged from C_nH_{2n-2} to C_nH_{2n-6} with an open chain and different numbers of multiple bonds in the molecule. As the degree of unsaturation increased, a tendency toward stabilization of the large ionic fragments resulting from the electron bombardment was observed. Analysis of the mass spectra of the hydrocarbons showed that the intensity of the ions formed by re-

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L 34136-65

ACCESSION NR: AT5006092

arrangement increased with the number of multiple bonds. Such ions in the mass spectra of unsaturated hydrocarbons are specific indicators of the degree of unsaturation and may be used for the qualitative and quantitative analysis of hydrocarbons. Orig. art, has: 4 figures and 2 formulas.

ASSOCIATION: VNII po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-union scientific research institute for petroleum and gas processing and the preparation of synthetic liquid fuel)

SUBMITTED: 19Jun64

ENCL: 00

SUB CODE: 0C

NO REF SOV: 000

OTHER: 000

Card 2/2

L 34135-65 EWT(m)/EPF(c)/EPR/EWP(j) Pc-4/Pr-4/Ps-4 WM/GS/RM
ACCESSION NR: AT5006093 S/0000/64/000/000/0236/0241

39
20
BT 1 7

AUTHOR: Khmel'nitskiy, R. A.; Polyakova, A. A.; Petrov, A. A.

TITLE: Some regularities in the mass spectra of silicon derivatives of hydrocarbons

SOURCE: Soveshchaniye po fizicheskim metodam issledovaniya organicheskikh sove-
dineniy i Khimicheskikh profsessorov, Frunze, 1962. Trudy. Frunze, Izd-vo Ilim,
1964, 236-241

TOPIC TAGS: silicoorganic compound, hydrocarbon, mass spectrum, dissociative ionization, trimethylsilane, triethylsilane, paraffin hydrocarbon, unsaturated hydrocarbon

ABSTRACT: The article discusses the mass spectra of silicon derivatives of some paraffins and monoolefinic, alkylvinylacetylenic, and aromatic hydrocarbons containing trimethylsilyl or triethylsilyl radicals and undergoing dissociative ionization. A modified MS-1 mass spectrometer was employed. The decomposition mechanisms of Si-derivatives of monoolefinic and vinylacetylenic hydrocarbons, based on the mass spectra obtained, are illustrated. The analysis showed that the introduction of Si into the molecule, without causing a fundamental change in the mass

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L 34135-65

ACCESSION NR: AT5006093

spectrum, brings about an appreciable change in the probability of formation of individual ions. This was particularly apparent in the case of ions produced by rearrangement, which, in the case of hydrocarbons, are apparently formed via intermediate structures. Orig. art. has: 4 figures.

ASSOCIATION: VNII po pererabotke nefi i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-union scientific research institute for petroleum and gas processing and the preparation of synthetic liquid fuel)

SUBMITTED: 19Jun64

ENGL: 00

SUB CODE: 0C

NO REF SOV: 006

OTHER: 001

Card 2/2

L 33258-65 ENT(m)/EPP(c)/T Pr-l WE

ACCESSION NR: AP5006085

S/0204/65/005/001/0153/0159

AUTHOR: Polyakova, A. A.; Kimmel'nitskiy, R. A.; Medvedev, F. A.

24
23
B

TITLE: Mass spectroscopic method for analyzing petroleum paraffins using unified characteristics

SOURCE: Neftekhimiya, v. 5, no. 1, 1965, 153-159

TOPIC TAGS: petroleum refining, petroleum paraffin, mass spectroscopy, paraffin hydrocarbon, unified characteristic, sensitivity coefficient, hydrocarbon analysis

ABSTRACT: An interpolation method was developed for calculating the relative sensitivity coefficients of C₁₄ and higher alkanes for the mass spectrometer MKh-1303 without calibrating the instrument for each component. The method was then used for the group analysis of petroleum paraffins and high-boiling liquid paraffins. Sensitivity coefficients were calculated using the equation

$$y = 0.0009x^2 - 0.0449x + 1.5062$$

y being the coefficient of the relative ionization capacity of molecular ion peaks of n-paraffins and x the carbon number, permitting the computation of the composition of C₁₄-C₂₀ n-alkane model mixtures from mass spectroscopic data with a 3.3% average relative error. A published method for group analysis of hydrocarbons

Card 1/2

L33258-65

ACCESSION NR: AP5006085

(Anal. Chem. v. 31, 1959, 1531) and the correction of constants for the mass sensitivity of peaks by equations based on the interpolation method were used to determine the n-paraffin, iso-paraffin and naphthene content of model mixtures and of liquid 240-275C and 275-350C cuts with 4-5% and 7% relative error, respectively. The absolute sensitivity of the method is 0.5-1%. Orig. art. has: 3 figures, 3 tables and 9 formulas.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefi (All-union petroleum processing scientific research institute)

SUBMITTED: 02Jan64

ENCL: 00

SUB CODE: FP, OF

NO REF SOV: 003

OTHER: 007

Card 2/2

MATVEYEV, Ye.L.; POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; MEDVEDEV, R.A.

Modification of the recording unit of an MKh1303 mass
spectrometer. Prib. i tekhn. eksp. 10 no.5:172-174 S.-O '65.
(MIRA 1961)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut nefteperera-
batyvayushchey promyshlennosti, Moskva.

L 25272-66 EWT(m)/T WE

ACC NR. AP6017744

SOURCE CODE: UR/0065/65/000/008/0008/0012

AUTHOR: Mikhaylov, I. A.; Polyakova, A. A.; Khmel'nitskiy, R. A.; Loktionova, Ye. L.; Medvedev, F. A.

ORG: VNI I NP

TITLE: Hydrocarbon composition of dearomatized liquid paraffins

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 8, 1965, 8-12

TOPIC TAGS: hydrocarbon, aromatic hydrocarbon, petroleum refining, petrochemistry

ABSTRACT: The hydrocarbon composition of highly dearomatized liquid paraffins of different fractional compositions was investigated. It was shown that they consist of paraffin hydrocarbons of normal and branched structure, monocyclic naphthenes, and aromatic hydrocarbons. In marketed samples of paraffins of the Moscow Petroleum Refinery the content of normal paraffin hydrocarbons was 95%, paraffin hydrocarbons of branched structure 3-4%, naphthene hydrocarbons up to 1%, and aromatic hydrocarbons not more than 0.5%. Normal paraffin hydrocarbons were represented by compounds with from 14 to 22 carbon atoms per molecule, isoparaffin hydrocarbons — from 17 to 24, and naphthene — from 14 to 16 carbon atoms. Marketed paraffins of the Groznyy Petroleum-Oil Plant are characterized by a reduced content of normal-structure paraffin hydrocarbons (90% and lower) and a high content of isoparaffin hydrocarbons (from 8 to 17%). Distribution of normal-structure paraffin hydrocarbons in terms of number of carbon atoms in the molecule was the same as in paraffins from sulfur-containing petroleum stocks, but in a different quantitative ratio. Orig. art. has: 3 figures and 3 tables. [JPRS]

SUB CODE: 11, 07 / SUEM DATE: none

Card 1/1

BLG

UDC: 665.41:553.98

L 01306-67
ACC NR: AP5027029

SOURCE CODE: UR/0120/65/000/005/0172/0174

AUTHOR: Matveyev, Ye. L.; Polyakova, A. A.; Khmel'nitskiy, R. A.; Medvedev, F. A. 39
BORG: VNII of the Petroleum Processing Industry, Moscow (VNII neftepererabatyvayushchey promyshlennosti)TITLE: Modification of the recording device of the ^{fb} MKh1303 mass-spectrometer 10SOURCE: Pribery i tekhnika eksperimenta, no. 5, 1965, 172-174TOPIC TAGS: mass spectrometer, oscillograph, *circuit design/MKh1303 mass spectrometer, N-700 oscillograph*

ABSTRACT: In order to reduce the time of recording, the regular EPP-09 recorder of the MKh1303 mass spectrometer was replaced by the N-700 oscillograph, which permits the recording of signals by 14 galvanometers of various sensitivities. The voltage range of measurements is from 0.005 to 50 v. An overcurrent protection was provided for each galvanometer circuit. A circuit arrangement of six MO011A galvanometers is schematically illustrated. The galvanometers operate within the 0-40 cps range with a maximum permissible current of 0.3 ma. The current sensitivity is about 1400 mm/ma-m. By using this method, it took only 18 min to obtain the mass spectra for molecular numbers of 50 to 400 under optimum operating conditions of the device. Orig. art. has: 3 figures.

SUB CODE: 07/4/ SUBM DATE: 18Aug64

sed
Card 1/2

WDC: 62-384.8

I 4:901-66 EWT(m)/EWD(-j)/T IJP(c) WW/JWD/RM
 ACC NR: AP6015655 (A) SOURCE CODE: UR/0413/66/000/009/0072/0072 29
 INVENTOR: Cherenyuk, I. P. ; Blokh, G. A. ; Polyakova, A. A. B
 ORG: none
 TITLE: Method of curing chloroprene rubber. Class 39, No. 181273
 SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 72
 TOPIC TAGS: chloroprene, chloroprene rubber, curing, rubber curing
 ABSTRACT: An Author Certificate has been issued for a method of curing chloroprene rubber with epoxy compounds. To improve the technological properties of the mixes and the properties of the rubber, monoepoxy compounds are the epoxy compounds used. [Translation] [NT]
 SV CODE: 11/ SUBM DATE: 11Jan65/
 07/
 1/1 *gom*
 UDC: 678.7.63.2.028.294

L 22745-66 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6006354 (A) SOURCE CODE: UR/0413/66/000/002/0093/0093

AUTHOR: Cherenyuk, I. P.; Blokh, G. A.; Moshchinskaya, N. K.;
Vishnevetskiy, V. M.; Polyakova, A. A.

ORG: none

TITLE: Vulcanization of synthetic rubber. Class 39, No. 178094 ¹⁵

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2,
1966, 93

TOPIC TAGS: synthetic rubber, vulcanization, epoxy compound

ABSTRACT: This Author Certificate describes a method for vulcanizing synthetic rubber using epoxy compounds. In order to improve the technological properties of mixes and those of vulcanization products, 2,2'-dihydroxy-1,1'-dinaphthylmethane diglycidate ester is proposed for use as an epoxy compound. [LD]

SUB CODE: 11/

SUBM DATE: 28May64

Card

1/1

UVR

UDC: 687.7.028.294:547.661.5

MIKHAYLOV, I.A.; POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; LOKTIONOVA, Ye.L.; MEDVEDEV,
F.A.

Hydrocarbon composition of dearomatized liquid paraffins. Khim. i tekh.
topl. i masel 10 no.8:8-12 Ag '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefi
i gazov i polucheniya iskusstvennogo zhidkogo topliva.

POPOVA, T.I.; POLYAKOVA, A.A.; ZIMINA, K.I.

Mass spectrometric analysis of complex alcohol mixtures. Khim. i tekhn.
topl. 1 masel 10 no.2:48-52 F '65.

(MIRA 18:8)

POPOVA, T.I.; POLYAKOVA, A.A.; KHOTIMSKAYA, M.I.

Mass-spectrometric analysis of heptanols. Neftekhimii 5 no.1:
149-152 Ja-F '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i Institut neftekhimicheskogo sinteza AN SSSR imeni Top-
chiyeva.

L 01047-66 EWT(m)/EPF(c)/EMP(j) RM

ACCESSION NR: AP5013771

UR/0366/65/001/005/0818/0821
543.51 : 547.317

24
30
B

AUTHOR: Polyakova, A. A.; Khmel'nitskiy, R. A.; Petrov, A. A.

TITLE: Mass spectra and structure of organic compounds. XII. Mass spectra and structure of disubstituted diyne hydrocarbons

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 5, 1965, 818-821

TOPIC TAGS: hydrocarbon, mass spectrum, dissociation

ABSTRACT: The article is a continuation of a study on the relationship between the electron impact and mass spectra of highly unsaturated compounds. In this work the mass spectra of three 2,4-diyne hydrocarbons differing in the structure of the saturated radical at the triple bond system were investigated: hexadi-2,4-yne, 6-methylheptadi-2,4-yne and 6,6-dimethylheptadi-2,4-yne. It was found that significant differences exist in ionization of the compared homologs. In the mass spectrum of hexadi-2,4-yne and its asymmetrical isomer, the molecular ion peak is the greatest. The fraction of total current due to molecular ions is about 31%. In dissociative ionization of the second and third hydrocarbons, the dissociation of molecular ions begins to play a much greater role. It was shown that the main direction of dis-

Card 1/2

L 59504-65 EFF(c)/EWP(j)/EWP(m) PC-4/Pr-4 RM UR/0366/65/001/005/0822/0827
 543.51:547.364
 31
 29
 8

ACCESSION NR: AP5013772
 AUTHOR: Polyakova, A. A.; Popova, T. I.; Petrov, A. A.

TITLE: Mass spectra and structure of organic compounds. 13. Mass spectra of vinyl acetylene alcohol

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 5, 1965, 822-827

TOPIC TAGS: mass spectrum, vinyl acetylene alcohol, vinylacetylenylcarbinol, methylvinylacetylenylcarbinol, ethylvinylacetylenylcarbinol, dimethylvinylacetylenylcarbinol, ionization, dissociation, mass charge ratio, peak, intensity, peak intensity, ionization chamber, electron current

ABSTRACT: The mass spectra of vinylacetylenylcarbinol (1-pentene-3-yn-5-ol), methylvinylacetylenylcarbinol (1-hexene-3-yn-5-ol), ethylvinylacetylenylcarbinol (1-heptene-3-yn-5-ol), and dimethylvinylacetylenylcarbinol (5-methyl-1-hexene-3-yn-5-ol) have been studied. The results show that: 1) vinyl acetylene alcohols have a much higher resistance to electronic charges than saturated alcohols of the fatty series; 2) cleavage of the hydrogen or of the alkyl radical is the first stage in the dissociative ionization; 3) the formation of hydrocarbon ions is typical of

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I 59504-65

ACCESSION NR: AP5013772

primary alcohols, and 4) the formation of oxygen-containing ions is typical of secondary and tertiary alcohols. A dissociation scheme for the maximal or intensive ions is suggested. The data on the mass spectra are given in Table 1 of the Enclosure. Orig. art. has: 1 figure and 2 tables. 2

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefi (All-Union Scientific Research Institute for the Refining of Petroleum); Leningradskiy tekhnologicheskii institut imeni L'ensoveta (Leningrad Technological Institute)

SUBMITTED: 27Apr64

ENCL: 02

SUB CODE: CC,GF

REF SOV: 007

OTHER: 002

Card 2/4

L 59504-65

ACCESSION NR: AP5013772

ENCLOSURE: 01

Table 1. Mass spectra of vinyl acetylene alcohols

Mass-charge ratio, m/e	Intensity of peaks (in %) with respect to the maximal intensity				Mass-charge ratio, m/e	Intensity of peaks (in %) with respect to the maximal intensity			
	1-pentene-3-yn-5-ol (I)	1-hexene-3-yn-5-ol (II)	1-heptene-3-yn-5-ol (III)	5-methyl-1-hexene-3-yn-5-ol (IV)		1-pentene-3-yn-5-ol (I)	1-hexene-3-yn-5-ol (II)	1-heptene-3-yn-5-ol (III)	5-methyl-1-hexene-3-yn-5-ol (IV)
26	12.8	4.8			64	10.4	0.7		
27	65.9	24.2	1.0		65	22.5	3.6		
28	31.6	30.6	2.9		66	4.1	7.6	1.6	1.0
30	11.9	5.5	3.5		67	1.3	2.2	1.9	2.9
31	8.3	0.7			68	0.9	3.3	7.8	14.3
37	9.1	2.8			69	0.9	2.0	2.4	1.3
38	18.9	4.7			70	0.9	2.3	0.8	1.3

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L 59504-65

ACCESSION NR: AP5013772

ENCLOSURE: 02

Table 1 (Cont.)

39	100.0	18.6	14.1	19.4	74	1.3	3.7	- 1.1	2.0
41	2.7	9.6	6.0	12.0	75	1.1	1.5	-	1.4
42	3.2	3.5	1.1	2.0	76	2.4	1.1	-	-
43	4.1	37.2	3.8	92.0	77	2.0	15.0	7.7	7.0
45	7.5	2.5	0.4	0.6	78	1.0	8.0	1.7	2.0
49	8.2	4.8	1.6	1.0	79	3.7	12.0	10.6	5.4
50	28.5	27.0	11.7	10.0	80	3.6	1.2	1.6	-
51	28.4	33.3	16.6	18.3	81	65.0	100.0	100.0	1.3
52	12.3	25.0	13.1	7.4	82	44.0	5.6	4.0	1.0
53	65.5	67.0	43.9	7.8	83	3.8	0.4	3.1	1.0
54	46.7	3.5	2.7	1.0	91	-	-	12.7	5.5
55	21.0	7.1	7.6	4.9	92	-	-	5.6	1.5
56	3.0	-	-	-	93	-	-	1.0	3.0
57	1.1	3.3	3.5	-	94	-	-	-	-
58	1.0	-	2.6	1.0	95	-	1.5	-	-
59	0.2	-	0.2	1.0	96	-	18.1	22.0	100.0
60	0.8	-	1.2	-	108	-	6.1	-	6.0
61	7.5	1.5	0.7	-	109	-	-	-	7.3
62	13.7	3.5	2.9	2.1	100	-	-	10.2	7.3
88	22.5	6.6	7.4	4.9	-	-	-	2.4	5.1

Card ^{kc} 1/1

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; MEDVEDEV, F.A.

Mass-spectrometric method for analyzing petroleum paraffins
using unitized characteristics. Neftekhimiia 5 no.1:153-159
Ja-F '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pere-
rabotke nefti.

KHMEL'NITSKIY, R.A.; POLYAKOVA, A.A.; PETROV, A.A.; MEDVEDEV, F.A.;
STADNICHUK, M.D.

Mass spectra and structure of organic compounds. Part II: Mass
spectra of 1,3-enyne germanium hydrocarbons. Zhur. ob. khim.
35 no.5:773-776 My '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i Leningradskiy tekhnologicheskii institut imeni
Lensoveta.

POLYAKOVA, A.

Training exercises and conclusions. Voen. znan. 40 no.12:
24 D '62 (MIRA 18:1)

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 8: Mass spectra of some allene hydrocarbons with tert-butyl radicals. Zhur. ob. Khim. 33 no.8:2518-2525 Ag. '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i Leningradskiy tekhnologicheskii institut imeni Lensovetu.

L 12977-63 EWP(j)/EPF(c)/EWT(m)/BDS ASD Pc-4/Pr-4 RM/WW
ACCESSION NR: AT3002350 8/2513/63/013/000/0482/0490 65
AUTHOR: Khmel'nitskiy, R. A.; Polyakova, A. A.; Petrov, A. A. 64
TITLE: Mass-spectrometric analysis of silica-containing vinylacetylenes 1
SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy*, v. 13, 1963.
Organicheskiy analiz, 482-490
TOPIC TAGS: spectrometry, silica, vinylacetylene, alkyl radical, vinyl radical
ABSTRACT: The study of mass-spectra of silica-containing vinylacetylenes showed that the process of their ionic dissociation is very selective. This results in the formation of a small group of characteristic ions which may be utilized in the identification and quantitative analysis of the alkylsilybutenes. The investigated mass-spectra covered the following compounds: trimethylisopropenylacetylenylsilane, trimethylpropenylacetylenylsilane, triethylvinylacetylenylsilane, dimethylvinylacetylenylsilane and methylvinyldivinylacetylenylsilane. In all the investigated materials, the maximum peak was found at the silica atom; after alkyl and vinyl radicals had separated from the silica atom. This fact allows the qualitative identification and the qualitative determination of the silica-containing vinylacetylenes in mixtures. Orig. art. has: 3 tables and 1 figure. ASSN: All-Union Scientific-Research Inst. for Petroleum and Gas Refines
Card 1/2 and Synthesis of Liquid Fuel

KHMEL'NITSKIY, R.A.; POLYAKOVA, A.A.; PETROV, A.A.

Mass spectrometric analysis of silicon-containing vinylacetylenes.
Trudy Kom.anal.khim. 13:482-490 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefit i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Silicon organic compounds) (Butenyne) (Mass spectrometry)

POPOVA, T.I.; POLYAKOVA, A.A.; ZIMINA, K.I.

Mass spectroscopic analysis of alcohols. Trudy Kom.anal.khim.
13:490-495 '63. (MIRA 16'5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Alcohols) (Mass spectrometry)

TAL'ROZE, V.L.; ZIMINA, K.I.; POLYAKOVA, A.A.; TANTSYREV, G.D.

Mass spectrum analysis of mixtures of organic substances.
Trudy Kom.anal.khim. 13:456-474 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Organic compounds) (Mass spectrometry)

POLYAKOVA, A.A.; ZIMINA, K.I.; KHMEL'NITSKIY, R.A.

Mass spectrometric analysis of complex mixtures of hydrocarbons.
Trudy Kom.anal.khim. 13:495-502 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrocarbons) (Mass spectrometry)

POLYAKOVA, A.A.

Case of pulmonary abscess in postabortion enterococccic septi-
copyemia, cured by pleural puncture and intraabscess injections
of penicillin. Akush gin. No.1:49 Jan-Feb 51. (CIML 20:5)

1. Of the Division of Puerperal Diseases of the Institute of Ob-
stetrics and Gynecology (Acting Director -- Prof.A.P.Nikolayev,
Corresponding Member of the Academy of Medical Sciences USSR),
of the Academy of Medical Sciences USSR.

POLYAKOVA, A.A.

Conservation of bodies of water. Okhr. prir. i zapov. delo v SSSR
no.5:100-102 '60. (SEA 14:2)

1. Komissiya po okhrane prirody AN SSSR.
(Water conservation) (Lakes)

POLYAKOVA, A.

Role of foreign trade in Albania's economics [with English
summary in insert]. Vnesh.torg. 28 no.10:10-13 ' 58.
(MIRA 11:12)

(Albania--Commerce)

L 45519-06 R/P(1)/R/P(2)/R/T(3)/R/R(K)-2/T/R/P(1)/R/P(2) T/P(1)
ACC NR: AP6031583 MS/ID/WH SOURCE CODE: UR/0386/66/004/004/0132/0134

AUTHOR: Polyakova, A. D.

101
106
8

ORG: Acoustics Institute (Akusticheskiy institut)

TITLE: Nonlinear effects in a hypersonic wave

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 4, 1966, 132-134

TOPIC TAGS: hypersonic wave, shock wave, low temperature effect, laser application, shear stress, *single crystal, quartz*

ABSTRACT: The author discusses the hypersonic wave that builds up when a light wave produced by a giant laser pulse, is focused inside a quartz single crystal with special attention to the role played in its propagation by nonlinear phenomena, which can lead to a distortion of the wave form, to the appearance of higher harmonics, and in the case of sufficiently large intensities to the formation of a periodic shock wave. Conditions under which this nonlinear-distortion process is counteracted by energy dissipation are determined from analytic estimates of the degree of nonlinear distortion in the sound wave in terms of a parameter (R) that depends on the absorption coefficient, the specific heat, the Gruneisen constant, the relaxation time, and the temperature. It is shown that the nonlinear effects play essentially different roles at different temperatures, the parameter R increasing rapidly with decreasing temperature, so that at 25K and below the sound wave is a periodic shock wave with a

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I. 45812-86

ACC NR: AP6031583

3

front width approximately equal to the lattice constant. It is also noted that the large forces that arise in the front of the shock waves can cause local damage to the crystal at low temperatures, such as observed by S. V. Krivokhizha et al. (Pis'ma ZhETF v. 3, 378, 1966). In addition, at large values of R a purely longitudinal wave cannot exist and shear stresses arise, which under certain conditions can reach large values. These stresses can also cause crystal damage. The author thanks I. L. Fabelinskiy, G. A. Askar'yan, and K. A. Naugol'nykh for useful discussions. Orig. art. [02]
has: 1 figure.

SUB CODE: 20/ SUBM DATE: 31May66/ ORIG REF: 002/ OTH REF: 002 / ATD PRESS:
5083

23
Card 2/2

POLYAKOVA, A.G.

The role of imitation in acquiring habits by preschool children
[with summary in English]. Vop. psikhol. 4 no.5:88-97 S-O '58.
(MIRA 11:12)

1. Institut psikhologii APN RSFSR, Moskva.
(Imitation) (Habit)

POLYAKOVA, A.G.

Success for efficiency promoters at the Kherson Combine. Tekst.prom.
18 no.12:56 D '58. (MIRA 11:12)

1. Predsedatel' Khersonskogo oblastnogo orgbyuro Vsesoyuznogo obshche-
stva izobretateley i ratsionalizatorov.
(Kherson Province--Cotton manufacture)

ЛЕБЕДИНСКАЯ, Ye.I.; ПОЛЯКОВА, A.G.

LEBEDINSKAYA, Ye.I.; POLYAKOVA, A.G.

Some age-dependent changes in the interaction between the first and second signal systems in two-to seven-year-old children. Vop.psikhol. 3 no.1:53-60 Ja-F '57 (MIRA 10:3)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo universiteta i Otdel razvitiya i vospitaniya Instituta pediatrii Akademii meditsinskikh nauk SSSR.

(Child study) (Conditioned response)

POLYAKOVA, A. G.

Polyakova, A. G. "A psychological analysis of the process of mastering habits by means of imitation in children." Academy of Pedagogical Sciences RSFSR. Sci Res Inst of Psychology. Moscow, 1956. (Dissertation for the Degree of Candidate in Pedagogical Science)

So: Knizhnaĭa letopis', No. 27, 1956. Moscow. Pages 94-109; 111.

POBYAKOVA, A.D.

7

MA

(2)

POBYAKOVA, A.D.

Reaction of dialkyl phosphorous acids with aldehydes and ketones. V. Z. Medvedev and Z. G. Borzhenyi, Chem. Abstr. (1953), 47, 3227; 38514; 45, 2572. (ROCH₂)₂POH react with aldehydes and ketones with much evolution of heat in the presence of catalytic amts. of MeO-CH₂O-POH; however the expected esters of (hydroxyalkyl)-phosphonic acids undergo decomn. or disprop. to the initial reactants on attempted vacuum distn.; (only the product from Me₂CO could be distd.); hence the products were purified by contact with adsorbents such as Al₂O₃ or activated C in MeOH or C₆H₆. The ease of cleavage of the H bond between the HO group and the phosphoryl group. Usually a lower temp. during the purification facilitates the isolation. The course of the reaction was followed by con- parison of the phos. const. of the initial reaction mix- ture (without Me₂CO) with that of the final mixt.; the purifica- tion with Al₂O₃ was run by heating 1-2 hrs. on a steam bath, then with activated C, also 1-2 hrs. on a steam bath, and distg. the solvent *in vacuo*. The products obtained (% yield, mp, and *d_s* given): (MeOCH₂CH₂O)P(O)CH(OH)Ph, 46, 79.9, 1.4401, 1.681; (MeOCH₂CH₂O)P(O)CH(OH)Me, 60.6, 1.4405, 1.1365; (MeOCH₂CH₂O)P(O)CH₂CH₂OC₆H₅, 1.5055, 1.3341; *n*-FOC(CH₂O)P(O)CH₂CH₂OC₆H₅, 58, 1.4075; (MeOCH₂CH₂O)P(O)CH₂CH₂OC₆H₅, 60, 1.4345, 1.1573 (undist. product, 89.4%, *n*_D²⁰ 1.4305, *d*₄²⁰ 1.1540); (MeOCH₂CH₂O)P(O)CH(OH)CH₃, 55.8, 1.4360, 1.1910; (EtOCH₂CH₂O)P(O)CH(OH)Me, 67.3, 1.4430, 1.1648; (EtOCH₂CH₂O)P(O)CH(OH)Ph, 53.1, 1.4470, 1.128; (EtOCH₂CH₂O)P(O)CH(OH)Pr, 69.5, 1.4588, 1.100; (EtOCH₂CH₂O)P(O)CH₂CH₂OC₆H₅, 50.7, 1.188; *n*-FOC(CH₂O)P(O)CH₂CH₂OC₆H₅, 1.4410, 1.097; (EtOCH₂CH₂O)P(O)CH(OH)CH₃, 53, 1.4570, 1.1365; (EtOCH₂CH₂O)P(O)CH(OH)CH₃, 74.6, 1.4562, 1.110. Me₂CO, Me₂CO, AcPh, Ph₂CO, (PhCH₂)₂CO, and Bz₂ showed evidence of reaction but the desired products could not be isolated. C. M. Kosolapoff

POLYAKOVA, A.G.

Spatial characteristics of induced potentials in the cerebral cortex of newborn animals. Trudy Inst. norm. i pat. fiziol. AMN SSSR 6 :11-13 '62 (MIRA 17:1)

1. Laboratoriya obshchey fiziologii tsentral'noy nervnoy sistemy (zav. - deystvitel'nyy chlen AMN SSSR prof. P.K. Anokhin) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

USSR / Human and Animal Physiology. Growth Physiology. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40901.

Author : Lebedinskaya, Ye. I.; Polyakova, A. G.

Inst : Not Given.

Title : Changes in the Interaction of the First and Second
Signal Systems in Children 2-7 Years Old,

Orig Pub: Vopr. psikhologii, 1957, No 1, 53-60.

Abstract: The nature of the answers by children concerning their activity (playing ball) depended to a great extent upon the form of the question posed by the adult. When adults denied the action carried out by the child, children in the 2-4 age range often gave an incorrect answer, by disclaiming the ac-

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11(5)

SOV/92-59-1-30/36

AUTHOR: Polyakova, A.G.

TITLE: The Council of Inventors and Efficiency Experts At Work (Sovet izobretateley i ratsionalizatorov za rabotoy)

PERIODICAL: Neftyanik, 1959, Nr 1, p 33 (USSR)

ABSTRACT: The personnel of the Kherson refinery has pledged to complete the 1958 production plan by December 5th, and to raise labor productivity at their refinery 7.5 percent. Thanks to the contribution of inventors and efficiency experts this obligation is being promptly discharged. The author cites some names of outstanding experts, among whom is N.P. Gromov, operator of a cracking unit, G.I. Aleksandrovskiy and others. The youth of the refinery also takes an active part in the campaign of practical suggestions and proposals. A group of efficiency experts, supported by some engineers, made a good suggestion to remodel the electric desalting unit. Some suggestions were also made to prevent corrosion of the refinery equipment. Thanks to practical proposals, which were accepted, the refinery succeeded in saving a considerable amount of money. Moreover,

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The Council of Inventors (Cont.)

SOV/92-59-1-30/36

a substantial amount of steam, water, and material was saved as well. The group of refinery efficiency experts guided by the refinery council now makes efforts to attain the goal of having every fourth worker act as an efficiency expert.

Card 2/2

IVANOVA, A.V.; POLYAKOVA, A.G.

Clinical aspects and therapy of systemic lupus erythematosus.
Terap.arkh. 33 no.4:65-71 '61. (MIRA 14:5)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof.
Z.V. Gorbunova) Sverdlovskogo meditsinskogo instituta.
(LUPUS ERYTHEMATOSUS)

DURINYAN, R.A.; POLYAKOVA, A.G.

Electrophysiological analysis of a short latent period potential induced in the associative cerebral cortex of a cat. Dokl. AN SSSR 165 no.4:955-958 D '65. (MIRA 18:12)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR.
Submitted January 15, 1965.

POLYAKOVA, A.G.

Spreading ways of afferent signals to the associative
cortex. Dokl. AN SSSR 165 no.5:1208-1210 D '65.

(MIRA 19:1)

1. Institut normal'noy i patologicheskoy fiziologii AMN
SSSR. Submitted January 15, 1965.

POLYAKOVA, A.I.

Leaf impressions on paper. Priroda 50 no.11:115 N '61.
(MIRA 14:10)

1. Achikulakskaya nauchno-issledovatel'skaya opytnaya stantsiya
subtropicheskogo lesnogo i lesoparkovogo khozyaystva Stavropol'skogo
kraya.

(Leaves)

KUDRENKOV, B.I.; MUDROV, G.G.; POLYAKOVA, A.I.

New requirements of stone materials. Avt.dor. 27 no.1:27-29
Ja '64. (MIRA 17:4)

KUGENEV, Petr Venediktovich, doktor sel'khoz. nauk; POLYAKOVA,
A.I., red.

[Primary processing of milk on farms] Pervichnaia obra-
botka moloka na fermakh. Moskva, Rossel'khozizdat, 1964.
157 p. (MIRA 18:4)

PINUS, E., inzh. POLYAKOVA, A.^I, inzh. (Moskva)

Use local materials in road construction. MTO 2 no.3:13-14
Mr '60. (MIRA 13:6)

(Road materials)

KURDENKOV, B.I.; POLYAKOVA, A.I.

Conference on the increased use of local rock materials in
road construction. Avt.dor. 23 no.2:30-31 P '60.

(MIRA 13:5)

(Road materials)

ZHITENKO, P.V.; FUSAKOV, V.N.; TARSHIS, M.G.; POLYAKOVA, A.I.,
red.

[Primary processing and storing of livestock produce on
collective and state farms] Pervichnaia pererabotka i khra-
nenie produktov zhivotnovodstva v kolkhozakh i sovkhozakh.
Moskva, Rossel'khozizdat, 1965. 171 p. (MIRA 18:8)

POLYAKOVA, A.I.

A promising species of poplar. Priroda 51 no.8:119 Ag '62.
(MIRA 15:9)

1. Achikulaskaya nauchno-issledovatel'skaya lesnaya opytnaya
stantsiya.

(Terek Valley--Poplar) (Kuma Valley--Poplar)

VOL'FSON, I.S.; POLYAKOVA, A.I.; AL'PIDOVSKAYA, V.G.; FAKHRUTDINOVA, L.I.

Present status of the production of hydrocarbon stock in the
gasoline plants of the middle Volga Valley Council of National
Economy. Gaz. delo no.5:28-33 '64 (MIRA 17:7)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut.

YAKUNIN, O.A.; POLYAKOVA, A.I.

Testing the strength of gravel in cylindrical containers. Avt. dor.
24 no.2:20-22 P '61. (MIRA 14:3)

(Gravel—Testing)

POLYAKOVA, A.I.; FAKHRUTDINOVA, L.I.; MINEYEVA, S.I.; AL'PIDOVSKAYA, V.G.

Operation of a unit for the drying of reduced gas in the
Minnibayev gasline plant. Neftteper. i Nefttekhim. no.5:14-17
'64. (MIRA 17:8)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut,
g. Bugul'ma.

KURDENKOV, Boris Ivanovich; POLYAKOVA, Antonina Ivanovna; FILATOV, Anatoliy Petrovich; RUDENKO, K.G., red.; GANYUSHIN, A.I., red.izd-va; DONSKAYA, G.D., tekhn.red.

[Beneficiation of stone material for road construction]
Obogashchenie kamennogo materiala dlia dorozhnogo stroi-
tel'stva. Moskva, Avtotransizdat, 1962. 59 p.

(MIRA 15:4)

(Road construction)

(Stone, Crushed)

STARTSEV, D.I., prof.; POLYAKOVA, A.I., red.

[Selection work in breeding stations] Seleksiionnaia rabota v plemennykh zavodakh. Moskva, Rossel'khozizdat, 1965. 245 p. (MIRA 19:1)

POLYAKOVA, A.K.; FROLOV, A.B.; SHIGIN, A.G.

Study of prospects for creating an input device for an
analog computer using electroluminescence. Trudy VNI no.53:
43-54 164. (MIRA 17:6)

SOV/20-122-1-13/44

24(1)

AUTHOR:

Polyakova, A. L.

TITLE:

On the Absorption of the Sound of a Finite Amplitude in a Relaxating Medium (O pogloshchenii zvuka konechnoy amplitudy v relaksiruyushchey srede)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 51-53 (USSR)

ABSTRACT:

This paper investigates the absorption of sound waves in a medium in which internal processes due to the transition of the energy of the progressive motion of the molecules to the internal degrees of freedom are possible. These processes cause a relaxation and, therefore, an additional absorption of the sound the frequency of which is similar to the relaxation frequency. The Riemann (Riman) solution cannot be applied where the wave has a saw-like shape and where discontinuities occur. For the description of such a wave, the author uses a solution deduced in a paper by R. D. Fay (Fey) (Ref 2). An expression for the vibration velocity is given; it may give a Fourier (Fur'ye) expansion for a saw in a viscous medium. It is found as an approximate solution

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On the Absorption of the Sound of a Finite Amplitude in a Relaxating Medium

of the exact equations of hydrodynamics in consideration of viscosity. According to the solution method described in the paper by R. D. Fay, the non-linear effects may be taken into account already in first approximation. If the expression for the vibration velocity is found in first approximation, the absorption of such a wave may be described by the relaxation theory of the sound of infinitely low frequencies. An expression is then deduced for the energy which is dissipated in an irreversible process caused by the deviations from the equilibrium. After some steps formulae for the average value of the dissipated energy and for the absorption coefficient are deduced. If the Reynolds (Reynol'ds) number R is increased approximately 10 times its amount, the absorption in the maximum increases approximately 1,5 times. By an increase of R , moreover, the maximum of the absorption is displaced to frequencies that are lower than the relaxation frequency. From a physical point of view, this result is well understandable: The non-linear alterations of the solution are equivalent to the presence of higher harmonics in the spectrum of the wave. Every higher harmonic absorbs a part of the transferred energy. If the ground frequency

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On the Absorption of the Sound of a Finite Amplitude in a Relaxating Medium

SOV/20-122-1-13/44

of the sound is lower than the relaxation frequency, the higher harmonics are within the region of relaxation and this intensifies absorption. If R increases, K increases, too. The above-discussed effect has a noticeable intensity and may be observed experimentally. There are 2 figures and 4 references, 2 of which are Soviet.

PRESENTED: April 28, 1958, by N. N. Andreyev, Academician

SUBMITTED: April 24, 1958

Card 3/3

Reports from the Program and Information Circles, reports to be submitted for the Third Intl. Congress on Acoustics, USSR, August, 1979, CP. 1-6

Polyakova, A.L.

1-8 Sept 79

- BERKOV, B. B., and MAL'AS, S. A., Laboratory for Molecular Acoustics, Moscow Oblast Institute for Pedagogics - "The relationship between viscosity and velocity of sound in a liquid"
- BLOKHIN, V. I., and KNOVNIK, S. E., State University of Moscow - "Study of sound dispersion in solid bodies, and its measurement by means of an optical process in a laser crystal"
- BLYZNIKHIN, G. D., Acoustics Institute, USSR Academy of Sciences, Moscow - (1) "The interfield intervals and curve tracks in complex areas"; (2) "Development of curve phenomena generalizations"
- BOGOLYUBOV, L. G., Leningrad Electrical Engineering Institute in V. I. Il'ynov-Lenin - "Absorption of ultrashort waves with frequencies of up to 1000 MHz in crystals"
- BRUDKO, B.T.S., E. P., and KOMAROV, S. V., Acoustics Institute, USSR Academy of Sciences, Moscow - "The propagation of spherical and cylindrical waves of finite amplitude"
- BRUDKO, V. F., Laboratory for Molecular Acoustics, Moscow Oblast Institute for Pedagogics - "Physical bases of the sound field: application of molecular acoustics of small volumes"
- BRODITSKY, V. P., BELITSKIYA, L. G., and MELNIKIY, B. A. - "Study of supersonic wave absorption in the ethers of acetic acid at high frequencies"
- BRODITSKY, V. P., MAL'YAKOV, B. K., and KHEZHEVICH, M. G. - "Studies of supersonic wave absorption in liquids at high temperatures and pressures"
- BRODITSKY, V. P., BRODITSKIY, E. I., and CORBUZY, M. A. - "Study of the system of liquid-proof bodies by means of ultra-acoustical methods"
- BRODITSKY, V. P., YADOLYEV, V. F., ZEMERENKO, Yu. G., and SHEN'VICH, A. A. - "Dispersion of ultrasonic sound in thin gases"
- BUKAROVA, L. L., Acoustics Institute, USSR Academy of Sciences, Moscow - "Study of sound field amplitude absorption of ultrasonic waves"
- BUKAROVA, L. L., YADOLYEV, V. F., and MELNIKIY, B. A., USSR Academy of Sciences, Moscow - "Statistical properties of broad-band signals"
- BYT, S. A., and FAYLOR, D. P., Acoustics Institute, USSR Academy of Sciences, Moscow - "
- KOZLOV, L. D., Acoustics Institute, USSR Academy of Sciences, Moscow - "Studies of the physical processes in industrial applications of supersonic sound"
- KARAVAYOVA, I. E., Sverdlov Institute of Evolutionary Physiology, USSR Academy of Sciences, Leningrad - "Predicting making of short tone signals"
- KLATIN, I. I., and ILYASOV, Yu. M., Laboratory for Combating Noise, Institute for Labor Protection, Leningrad - "The Soviet system of standards for industrial noise and the Soviet Union's experiences with the system"
- KREZT, D., Neekatschbarrer - "Contribution to the theory of sound radiation"
- KUZNETSOV, J., Budapest - "Ultrasonic intensity measurement by compensated calorimeter"
- KUZNETSOV, P., OPLISEK, A., and SUTINA, S., Chair of Physics, Higher School of Agriculture, Cluj-Napoca - "Concerning a new acoustic method of determining intermediate molecular forces in liquids and liquid mixtures"
- JACOB, E. P., Institute for Theoretical Physics, University of Jostov, "The acoustic method of velocity measurements for the physics of ternary solutions"
- "Generation of sound by spark discharges in water"

Russia

Poland

Germany
(Democratic
(Republic))

Reports from the Program and Information Circles, reports to be submitted for the Third Intl. Congress on Acoustics, USSR, August, 1979, CP. 1-6

SOV/46-5-1-14/24

AUTHOR: Polyakova, A.L.

TITLE: Thermodynamic Theory of Absorption of Finite-Amplitude Sound in Relaxing Media (Termodinamicheskaya teoriya pogloshcheniya zvuka konechnoy amplitudy v relaksiruyushchikh sredakh)

PERIODICAL: Akusticheskiy Zhurnal, 1959, Vol 5, Nr 1, pp 85-90 (USSR)

ABSTRACT: Propagation of sound of finite amplitude is considered using thermodynamics of irreversible processes. It is assumed that two states are possible in the medium in which sound is propagated: transition between these two states occurs under the action of sound (relaxation). Such transitions are due to transfer of translational energy of molecules to internal processes (for example vibrational or rotational decrease of freedom, chemical reactions, etc.). An expression is obtained for energy dissipated in such processes. It is shown that finite-amplitude sound is absorbed more strongly than sound

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SOV/46-5-1-14/24

Thermodynamic Theory of Absorption of Finite-Amplitude Sound in Relaxing Media

of infinitely small amplitude. The absorption maximum is found to be displaced towards frequencies lower than the relaxation frequency. The paper is entirely theoretical. Acknowledgments are made to N.N. Andreyev for his advice. There are 1 figure and 5 references, 3 of which are Soviet, 1 English and 1 translation.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Acoustics Institute, Academy of Sciences of the U.S.S.R., Moscow)

SUBMITTED: June 27, 1958

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S/046/60/006/003/008/012
B019/B063

AUTHOR: Polyakova, A. L.
TITLE: Propagation of Waves With Finite Amplitude in Relaxing Media λ

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 3, pp. 356-359

TEXT: In the article under abstraction, the author studies the propagation of sound waves with finite amplitudes in relaxing media with the help of the second perturbation-theoretical approximation. Proceeding from the hydrodynamic equations (1) and (2) and the reaction equation (3) she derives the equations of second approximation (6). It is shown that, provided $\rho_1/\rho_2 < 2\Delta c/c_0$ (where ρ_1 - density in first approximation, ρ_0 - undisturbed density, and c_0 - velocity of sound for very slow processes), the behavior of the second harmonic is determined by the wave absorption. This indicates that effects caused by a phase shift will occur only at frequencies at which the influence of absorption is reduced to a

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61
B

AUTHORS: Polyakova, A. L.; Shklovskaya-Kordi, V. V.

ORG: Acoustics Institute AN SSSR, Moscow (Akusticheskiy Institut AN SSSR)

TITLE: Influence of deformation on the properties of silicon pn junctions
55, 27

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 208-215

TOPIC TAGS: pn junction, silicon semiconductor, crystal lattice deformation, volt ampere characteristic, photo emf, photoconductive cell

ABSTRACT: The authors investigated the influence of anisotropic deformations, produced by an indentive needle in a direction perpendicular to the p-n junction plane, on the properties of silicon solar-battery photocells in which the pn junction is situated not far below the surface of the crystal. The junctions were produced by diffusion of phosphorus in a p-type silicon crystal with initial resistivity of

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1 ohm-cm. The depth of the junction was 2 -- 3 μ , and the junction was in the [111] plane. The light source was an ordinary incandescent lamp and the illumination level (3 and 10 W/m²) was measured with a calibrated photocell. The deformation was produced by a corundum needle with a point of radius 60 μ , placed perpendicular to the surface of the crystal. Measurements were made of the photoemf and the photocurrent of the junction, as functions of the force applied to the needle, and also of the influence of the elastic deformation on the volt-ampere characteristic, both in darkness and under illumination. The photoemf was found to decrease rapidly with increasing load on the needle, and the current for a given voltage increased with increasing pressure. There was no difference between the volt-ampere characteristic in darkness and under illumination. To interpret the results, theoretical estimates were made of the change in the concentration of the minority carriers, due to the shift of the conduction-band edges and the valence-band edges. The photocurrent decreased slightly with increasing load. Estimates are presented also for the change in the width of the forbidden band under the needle, and for the current through the deformed pn junction. The calculation results are in

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good agreement with the theory when the mechanical load on the needle exceeds 10 grams. The authors thank A. P. Landsman and G. S. Daletskiy for supplying the samples and valuable discussion, N. G. Kozhelupova and A. I. Ioffe for help with the numerical calculations, and L. V. Keldysh for a discussion of the results. Orig. art. has: 2 figures and 16 formulas.

SUB CODE: 20/ SUBM DATE: 20Nov64/ ORIG REF: 001/

Card

3/3

POLYAKOVA, A.L.

Nonlinear effects in solids. Fiz. tver. tela 6 no.1:65-70 Ja '64,
(MIRA 17:2)

1. Akusticheskiy institut AN SSSR, Moskva.

ACCESSION NR: APL011738

S/0181/64/006/001/0065/0070

AUTHOR: Polyakova, A. L.

TITLE: Nonlinear effects in solids

SOURCE: Fizika tverdogo tela, v. 6, no. 1, 1964, 65-70

TOPIC TAGS: nonlinear effect, nonlinear property, mechanical deformation, electromagnetic wave, terminal amplitude, terminal deformation, elastic wave, deformation tensor, isotropic medium, elastic isotropic medium

ABSTRACT: Nonlinear effects arise when mechanical or electromagnetic waves are transmitted through a solid having nonlinear properties (or if the equation describing the movement is nonlinear). These effects become noticeable when the wave intensity is such that the amplitude, because of its increase, cannot be limited by a linear approximation. (The waves are then said to have terminal amplitude). The author has investigated nonlinear effects arising in elastic isotropic media under the effect of terminal deformation. She has computed the cubic members of elastic energy, and in this approximation has studied the propagation of elastic waves. She has derived formulas that may be used to compute the components of the deformation tensor. In doing this she has obtained, along with members depending
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ACCESSION NR: AP4011738

periodically on time, other members not depending on time, somewhat analogous to acoustical radiation pressure in a solid. The members periodical with time are related to the quadratic components of wave motion by simple factors. Orig. art. has: 17 formulas.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moscow (Acoustical Institute AN SSSR)

SUBMITTED: 05Jul63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: FH

NO REF SOV: 004

OTHER: 000

Card 2/2

POLYAKOVA, A.L.; SOIJYAN, S.I.; KHOKHLOV, R.V.

Propagation of finite perturbations in a medium subject to relaxation. Akust.zhur. 8 no.1:107-112 '62. (MIRA 15:4)

1. Akusticheskiy institut AN SSSR, Moskva i Moskovskiy gosudarstvennyy universitet.
(Gas dynamics) (Sound--Transmission)