

Investigations in the Field of Conjugated Systems.
LXVIII. Diene Syntheses With Fluoroprene. I.
Condensations of Fluoroprene With α, β -Unsaturated
Aldehydes and Ketones, by A. A. Petrov, A. V. Tumanov
6 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXVI, No 10,
Oct 1956, pp 2744-2748.

Consultants Bureau

Sci - Chemistry
Mar 58

60,105

Conjugated Systems. LXIX. Diene Synthesis
with Fluoroprene. II. Condensation of
Fluoroprene with Derivatives of α, β -
Unsaturated Monobasic Acids, by A. A.
Petrov, A. V. Tumanova, 6 pp

RUSSIAN, no per, Zhur Obshch Khim SSSR, Vol XXVI,
No 11, 1956, pp 2991-2994.

Consultants Bureau

Sci -Chem
Jul 58

67.561

Conjugated Systems. LXX. Diene Syntheses with
Fluoroprene. III. Condensation of Fluoroprene with
the Esters of α, β -Unsaturated Dibasic Acids,
by A. A. Petrov, A. V. Tumanova, 4 pp.

RUSSIAN, no per, Zhur Obshch Khim SSSR, Vol XXVI,
No 11, 1956, pp 2995-2997.

Consultants Bureau

Sci - Chem
Jul 58

67,562

Conjugated Systems. LXXI. Dimerization of
Fluoroprene, by A. A. Petrov, A. V. Tumanova,
6 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXVI,
No 12, 1956, pp 3314-3318.

Consultants Bureau

Sci - Chemistry
Jul 58

67,411

Investigation in the Field of Conjugated
Systems. LXXII. Hydrogenation of Alkenylace-
tylenes, by Kh. V. Balyan, A. A. Petrov and
Yu. I. Porfiryeva, 6 pp.

RUSSIAN, Per, Zhur Obshch Khim, Vol XXVII, No 2,
1957, pp 365-~~368~~ 369.

Consultants Bureau

Sci - Chem

Jul 58

67,224

Investigations in the Field of Conjugated Systems.
LXXIII. The Order of Addition of Bromine to Vinyl-
acetylene, by A. A. Petrov, G. I. Semenov, N. P.
Sopov, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 4, 1957,
pp 928-932.

Consultants Bureau

Sci - Chem
Aug 58

69, 209

Investigations in the Field of Conjugated
Systems. LXXIV. The Infrared Spectra
and Reactivity of Vinylacetylene Hydro-
carbons, by A. A. Petrov, Yu. I. Porfir'yeva
and G. I. Semenov, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVIII,
No 5, 1957, pp 1167-1174.

Consultants Bureau

Sci - Chem

72,847

Sep 58

Investigations in the Field of Conjugated
Systems. LXXV. The Interaction of
Propargyl bromide with Aliphatic Alde-
hydes under the Conditions of the Reform-
atskiy Reaction, by A. A. Petrov, Yu. I.
Porfiriyeva and G. I. Semenov, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII,
No 5, 1957, pp 1175-1178.

Consultants Bureau

Sci - Chem
Sep 58

72,848

Investigations in the Field of Conjugated Systems,
LXXVI. The Order of Bromine Addition to Alkyl-
and Isoalkenylacetylenes, by A. A. Petrov and Yu.
I. Porfireva, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 7,
1957, pp 1805-1813.

Consultants Bureau

Sci - Chem

Oct 1958

74, 134

Investigations in the Field of Conjugated Systems. LXXVII. The Order of Addition of Hydrogen Halides to Propargylacetylene, by A. A. Petrov, Yu. I. Porfiryeva, 6 pp.

RUSSIAN, per, *Zhur Obshch Khim*, Vol XXVII, No 8, 1957, pp 2076-2080.

Consultants Bureau

Sci - Chem
Oct 58

74, 183

Investigation of Conjugated Systems. LXXVII.
Combination Scattering Spectra and Reactivity
of Vinylacetylene Hydrocarbons, by A. A. Petrov,
V. A. Kolesova, Yu. I. Porfir'yeva, 6 pp.

RUSSIAN,
IRE per, Zhur Obshch Khim, Vol XXVII, No 8,
1957, pp 2089-2094.

1-2087.

Consultants Bureau

Sci - Chem
Oct 58

74, 184

The Investigation of Conjugated Systems. LXXXI.
The Order of Bromine Addition to Dialkylvinylethynyl-
carbinols, by A. A. Petrov, K. B. Rall, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 9,
1957, pp 2402-2405.

Consultants Bureau

Sci - Chem
Oct 58

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Investigations on Conjugated Systems. LXXXI. Infra-
red Spectra of Some α -Unsaturated Acetylenic
Aldehydes and Ketones, by A. A. Petrov, G. I.
Gerasimov, 4 pp.

RUSSIAN, *Izv. Zhur Obshch Khim*, Vol XXVII, No 11,
1957; pp 2947-2950.

Consultants Bureau

Sci - Chem

Jan 59

78,789

Investigations on Conjugated Systems. IXOIII.
The Structure and Reactivity of the Methyl
Ester of Vinylacetylene Carboxylic Acid, by
A. A. Petrov, K. S. Hall, and G. I. Semenov,
I, 59.

RUSSIAN, per, Zhur Goshob Khim, Vol XXVIII,
No 2, 1958, pp 426-427.

Consultants Bureau

Sci - Chem

Apr 59

85,676

Investigations in the Field of Conjugated ~~and~~
Systems LIQUID: Diacetyne Compounds. I. Synthesis
and Properties of β -Alkoxydivinylacetylenes
(Enol Ethers of Methylvinylethyne Ketone). by
A. A. Petrov, 3 pp.

RUSSIAN, par, Zhur Obshch Khim, Vol XVIII, No 3,
1958, pp 638-640.

Consultants Bureau

Sci - Chem

May 59

87,360

Studies in the Field of Conjugated Systems. Part 85.
Condensation of Halodienes with Acetylenedicarboxylic
Ester, by V. S. Miklashevskaya, A. A. Petrov.

RUSSIAN, Izv. Akad. Nauk SSSR, Ser. Khim., Vol. XXVIII, No. 5,
1958, pp 1125-1127.

ATB RJ-1661

Sci - Chem

Jul 59

90,844

Studies in the Field of Conjugated Systems.

LXXXVI. The Combination of Piperylene Hydrochloride with Isoprene, by A. A. Petrov, N. A. Razumova, M. L. Genusov, 5 pp.

RUSSIAN, per Zhur Obshch Khim, Vol XXVIII, No 5, 1958, pp 1128-1131.

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Sci - Chem
Jul 59

93,258

Investigations on Conjugated Systems. LXXX. Infra-
red Spectra of Some Acetylenic and Vinylacetylenic
Alcohols, by A. A. Petrov, G. I. Semenov, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 11,
1957, pp 2941-2946.

Consultants Bureau

Sci - Chem

Jan 59

78,787

Investigations of Conjugated Systems, XCII,
Sequence of Addition of Iodine to Vinylacetylenic
Hydrocarbons, by A. A. Petrov, Yu. I. Porfir'eva,
T. V. Yakovleva, K. S. Mingaleva, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVIII, No 9,
1958, pp 2320-2324.

CB

Sci - Chem
Oct 59

100,068

Investigations of Conjugated Systems. XCIII. The
Sequence of Addition of Alkyl Hypobromites to
Vinylalkylacetylene, by A. A. Petrov, Yu. I.
Porfir'eva, G. I. Semenov, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol. XXVIII, No 9,
1958, pp 2325-2327.

CB

Sci - Chem
Oct 59

100,065

Investigations of Conjugated Systems. CXX. Addition
of Alkylolithiums to Vinylisopropenylacetylene,
by A. A. Petrov, V. A. Korner, T. V. Yakovleva, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 7, 1960,
pp 2238-2242.

CB

569
166, 307

Sci

Aug 61

Investigations of Conjugated Systems. CXXI. Addition
of Alkylolithiums to Trialkylvinylethynylsilanes,
by A. A. Petrov, V. A. Kormer, M. D. Stadnichuk,
pp.

RUSSIAN, per, Zhur Obshch Khim, Vol. XXX, No 7, 1960,
pp 2243-2247.

CB

571
166, ~~309~~

Sci

Aug 61

A. P. M. R. Study of the Energy Transfer Processes
Occuring During the Radiolysis of Certain Frozen
Hydrocarbons, by Yu. N. Molin, I. I. Chkheydze,
Al. A. Petrov, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXI, No 1,
1960, pp 125-128.

CB

149,758

Sci

Apr 61

Petrov, A. A., Kormer, V. A., and Savich, I. G.
MECHANISM OF LITHIUM-ALKYLS ADDITION TO
ENYNE-HYDROCARBONS. [1961] 2p. 6 refs.
Order from OTS or SLA \$1. 10 61-18584

Trans. of Zhur[na] Obshchei Khimii (USSR) 1960,
v. 30 [no. 12] p. 3845-3846.

DESCRIPTORS: *Lithium compounds, Alkyl radicals,
*Hydrocarbons, Chemical reactions, Infrared
spectroscopy.

(Chemistry--Organic, TT, v. 6, no. 9)

61-18584

I. Petrov, A. A.
II. Kormer, V. A.
III. Savich, I. G.

Office of Technical Services

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BT66-17-511T

Dup check for info only

Strain of a cylindrical blade ~~work~~ under the action
of shock loading

Petrov, A. A.

Russian collection: Trudy. Leningr. Korabelstroit.
in-ta, part 43, 137-151-, 1964

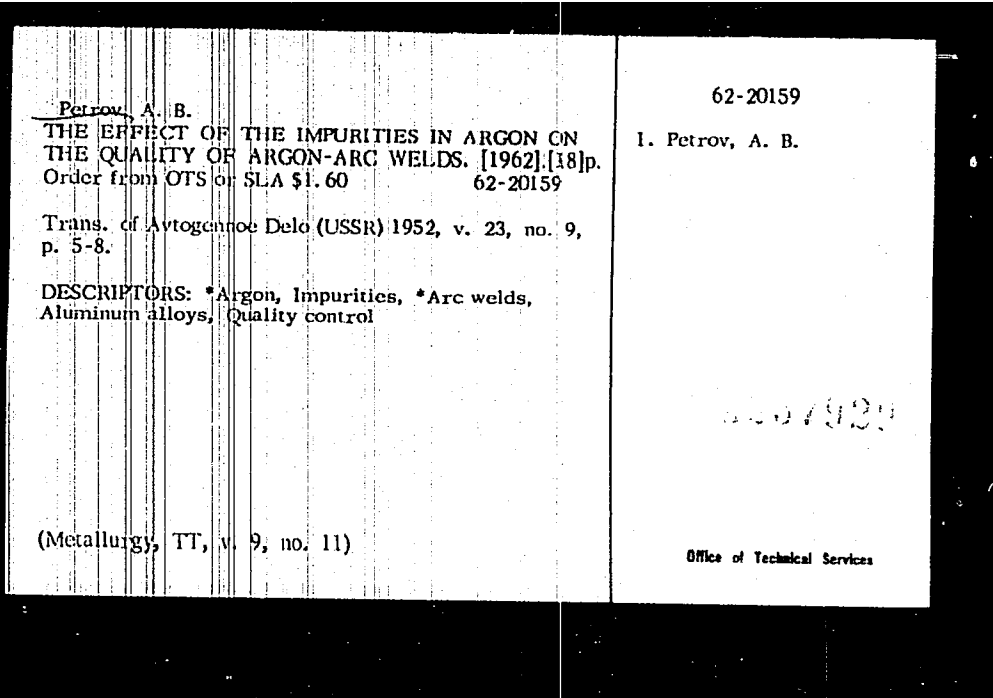
Synthesis and Properties of C₁₂-C₁₆ Monomethyl-
alkanes, by Al. A. Petrov, et al.

RUSSIAN, PER, Iz Ak Nauk SSSR: Otdel Khim Nauk,
1949, pp 1053-1059.

Dept of Interior
Tr No 226

Sci

Jan 63



TT-64-14914

Petrov, A. D., Ponomarenko, V. A., Mkhitarian,
L. L., and Snegova, A. D.
**THE SYNTHESIS AND PROPERTIES OF MONOCHLORO
DERIVATIVES OF ETHYL SILANE CHLORIDES. (1964)**
8p (figs omitted) 10refs
Order from CTS, SLA, or ETC \$1.10 TT-64-14914

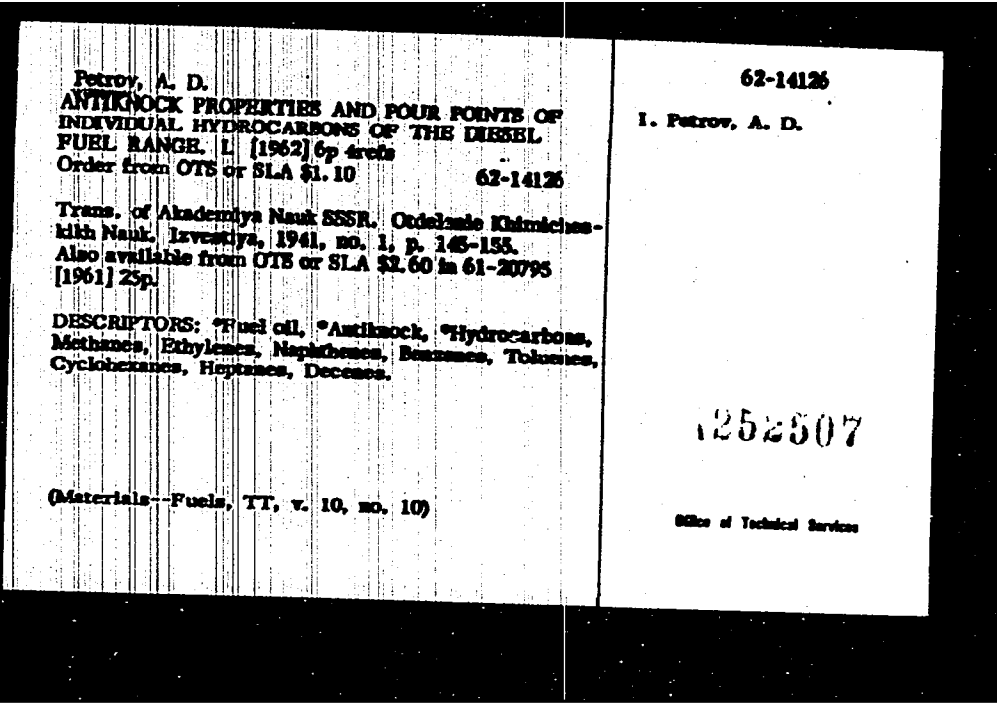
- I. Petrov, A. D.
- II. Ponomarenko, V. A.
- III. Mkhitarian, L. L.
- IV. Snegova, A. D.

Trans. of Akademiya Nauk SSSR, Doklady, 1955, v. 100
no. 6, p. 1107-1110.

3230

(Chemistry--Organic, TT, v. 11, no. 11)

Office of Technical Services



Petrov, A. D. and Kaplan, E. P.
SYNTHESIS AND PROPERTIES OF ISOPARAFFIN
HYDROCARBONS OF THE COMPOSITION C₁₂-C₂₂.
COMMUNICATION 2. [1963] 9p. 13 refs.

Order from OTS or SLA \$1.10 63-16801

Trans. of Zhurnal Obshchei Khimii (USSR) 1962, v. 32
[no. 1/2] p. 99-103.

An abstract trans. is available from OTS or SLA \$1.10
as 61-20323 [1961] 10p.

DESCRIPTORS: *Alkanes, *Alkenes, *Ethyl radicals,
*Methyl radicals, *Propyl radicals, Hydrocarbons,
Physical properties, Chemical properties, Bromides,
Synthesis (Chemistry).

The following hydrocarbons were synthesized for the
first time: 4,5-dimethyldecane, 2,7-dimethyl-4,5-
dimethyldecane, 7,8-dimethyltridecane, 8,8-dimethyl-
(Chemistry--Organic, TT, v. 10, no. 7) (over)

63-16801

J. Petrov, A. D.
E. Kaplan, E. P.

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Office of Technical Services

Synthesis of Organosilicon Monomers; by A. D.
Petrov.
RUSSIAN.
Haywood and Company Ltd.,

Sci - Chem
Apr 65

278,173

Synthesis of Organosilicon Monomers, by 58
A. I. Petrov, V. P. Mironov, et al. 492 pp.
RUSSIAN, bk., 1964.
CONSULTANTS BUREAU

Sci/Chemistry
Mar 68

346,008

A. I. Petrov

Petrov, A. D., Mironov, V. P., Ponomarenko, V. A.
and Chernyshev, E. A.

SYNTHESIS OF ORGANOSILICON MONOMERS.

1963, approx 575p

Order from CB \$22.50

Trans. of mono. [Sintez Kremniorganicheskikh
Monomerov, Moscow, 1961, 559p.]

DESCRIPTORS: *Organic compounds, *Silicon com-
pounds, Synthesis (Chemistry), Plastics, Rubber,
Polymers

(Chemistry--Organic, TT, v. 10, no. 12)

63-12531

- I. Petrov, A. D.
- II. Mironov, V. P.
- III. Ponomarenko, V. A.
- IV. Chernyshev, E. A.
- V. Consultants Bureau
Enterprises, Inc.,
New York

Office of Technical Services

<p>Petrov, A. D. SYNTHETIC LUBRICATING OILS. [1961] 13p 15refs Order from OTS, SLA, or BTC \$1.60 TT-61-16608</p> <p>Trans. of Khimiya Tverdogo Topliva (USSR) 1934, v. 5, p. 632-641.</p> <p>DESCRIPTORS: *Synthetic lubricants, *Lubricants, *Oils, Polymerization, Aluminum compounds, Chlorides, Electric discharges.</p> <p>(Materials--Lubricants, TT, v. 11, no. 3)</p>	<p>TT-61-16608</p> <p>I. Petrov, A. D.</p> <p>1137785</p> <p>Office of Technical Services</p>
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Synthesis of Organosilicon Monomers, by A.D. Petrov,
V.F. Mironov et al.

RUSSIAN, bk, 1961.

CB

Sci

Nov 61

Synthesis of Organosilicon Monomers With
Nitrile Groups, by A. D. Petrov, Ye. P.
Zakharov, et al., 6 pp.

RUSSIAN, per, Zhur Prikladnoy Khim,
Vol XLIV, No 2, 1962, pp 385-389. 9667326

FTD-TT-62-1260

Sci -Phys
Jan 63

219,957

Synthesis of Branched C_{12} - C_{16} Acids in the $C_nH_{2n-1}COOH$ Series,
by G. I. Nikishin, Yu. N. Ogilkin, A. D. Petrov, 6 pp.

RUSSIAN, per, Zhur Obahch Khim, Vol XXX, No 7, 1960,
pp 2148-2152.

CB

551
166, ~~289~~

Sci

Aug 61

Organosilicon Compounds Containing a Cyano-Group,
by V. M. Vdovin, A. E. Petrov, 15 pp.

RUSSIAN, per, Uspekhi Khim, No 7, 1962, pp 793-821.

CS

Sci

Mar 63

233,806

THE REACTION BETWEEN ALKENYL- AND ARYLHALOGENIDES
AND TRIARYLSILANES AT HIGH TEMPERATURES,
BY A. D. PETROV, Y. E. FISHER, 5 PP.

RUSSIAN, PER, ZHUR OBSHCH KHM, VOL XXXII, NO 3,
1962, PP 698-703.

CB

SCI

FEB 63

221,533

THE EFFECT OF TEMPERATURE ON THE DIRECTION OF
THE REACTION OF ALIPHATIC ESTERS WITH LITHIUM ALKYL,
BY A. D. PETROV, E. P. KAPLAN, 6 PP.

RUSSIAN, PER, ZHUR OBSHCH KHM, VOL XXXII, NO 3,
1962, PP 693-697.

CB

SCI

FEB 63

221,532

Alcohols and the Protective Properties of their
Monolayers against Evaporation in Reservoirs, by
A. D. Petrov, A. A. Trupoznikov, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVIII,
(CXXXIX), No 6, 1961, pp 1395-1398.

CS

Sci

Nov 62

217,980

Synthesis and Properties of Mono- and Poly-
allylphthalenone, III., by D. N. Anisoyev, A. D.
Petrov, 9 pp.

RUSSIAN; part; *Zhurn. Prikl. Khim.*, Vol. 28, No. 11,
1955.

OSIR 92 No 231

51 5 0 0 9

Sci - Chem

Oct 62

Organosilicon Compounds With Hydrocarbon Bridges
Between Silicon Atoms IV. The Pyrolysis of
a,w-Disilalkanes, by A. D. Petrov, et al, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 10,
1961, pp 3230-3233.

CB

Sci
Sep 62

211,759

SYNTHESIS OF SILICON-, GERMANIUM-, AND TIN-~~XXXXXXXX~~
CONTAINING PARA-SUBSTITUTED STYRENES AND A-
METHYLSTYRENES, BY A. D. PETROV, F. A. CHERNYSHEV,
4pp.

RUSSIAN, PER, DOK AK NAUK SSSR, VOL CXL, NO 4,
1961, PP 837-840.

CB

SCI

JUL 62

204,364

Synthesis and Properties of Di- and Triphenylsilanes.
Communication 5. Selective Hydrogenation of Di-
and Triphenylsilanes Over Pd, by N. A. Chel'tsova,
A. D. Petrov, 7 pp.

KHIMICH, ser. Iz Ak. Nauk SSSR, Otdel
Khim Nauk, No 2, 1961, pp 894-901.

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Sci

Jan 62

198, n 811

Catalytic Disproportionation of Alkyl (and
Alkenyl) Dichlorosilanes, by A. D. Petrov,
V. M. Vdovin, pp 8

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 3, 1960, pp 519-526.

CB

195,362

Sci
May 62

The Preparation of Organosilicon Derivatives of Bicyclo-
(2.2.1)-Heptane, by A. D. Petrov, A. F. Plate, E. A.
Chernyshev, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXI, No 4, 1961,
pp. ~~1199-1208~~

1199-1208

CB

196,693

Sci
Apr 62

Synthesis and Properties of p-Dialkylbenzenes,
by A. D. Petrov, G. I. Nikishin, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 4, 1960, pp 717-723.

CB

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May 62

194,446

61-20147

Petrov, A. D., Krutov, K. M., and Khrenov, I. M.
SYNTHESIS AND PROPERTIES OF ETHYLPROPYL-
CYCLOHEXYLMETHANE AND ISOPROPYLHEXYL-
CYCLOHEXYLMETHANE. [1961] 3p. 7 refs.
Order from OTS or SLA \$1.10 61-20147

I. Petrov, A. D.
II. Krutov, K. M.
III. Khrenov, I. M.

Trans. of Zhurnal Obshchei Khimii (USSR) 1945,
v. 15, p. 799-801.

DESCRIPTORS: Synthesis, *Methanes, Antiknock,
Octanes, Petroleum, Hydrogenation, Ethylenes,
Cyclohexanes, Molecular structure, Alcohols, *Fuels,
*Aviation fuels, Ethyl radicals, Propyl radicals,
Hexyl radicals.

184243

Ethylpropylcyclohexylmethane and isopropylhexyl-
cyclohexylmethane, not previously reported in the
literature, were synthesized. The pour points of these
hydrocarbons and their antiknock properties expressed
in cetene numbers were determined. (Author)
(Materials: Fuels, TT, v. 7, no. 1).

Office of Technical Services

Petrov, A. D. and Voronova, A. V.
ANTI-KNOCK PROPERTIES OF SOME BINARY MIX-
TURES. [1961] [1] p. 4 refs.
Order from OTS or SLA \$1.10 61-16883

Trans. of [Akademiya Nauk SSSR]. Comptes Rendus
(Doklady) de l'Académie des Sciences de l'U.R.S.S.,
1941. v. 31 no. 8: p. 765-766.

DESCRIPTORS: *Hydrocarbons, *Heptanes, Antiknock.

Octane numbers of mixtures such as polymer gasoline
cannot be derived from the octane numbers of individual
pure compounds by simple calculation. An investigation
of the change of octane numbers of five binary mixtures
with the proportions of their components was carried
out and the conclusions drawn were compared with
those drawn by Smiltzenberg, Hoog, Moerbeek and
Zigden in 1940. (Author)
(Chemistry--Organic. TT, v. 6, no. 9)

61-16883

I. Petrov, A. D.
II. Voronova, A. V.

Office of Technical Services

Petrov, A. D. and Shchukin, V. I.
ISOMERIZATION OF NORMAL HEPTENE TO
METHYLDIETHYLETHYLENE AND OF NORMAL
OCTENE TO DIMETHYLBUTYLETHYLENE. [1961]

Sp. 8 refs.

Order from OTS or SLA \$1.10

61-16934

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,
p. 1092-1095.

DESCRIPTORS: *Octenes, Isomerism, Chain reactions,
*Ethylenes, *Hydrocarbons, Raman spectroscopy,
Heptenes, Methyl radicals, Ethyl radicals, Butyl
radicals.

Isomerization of normal 1-heptene to methyldiethyl-
ethylene and of normal 1-octene to dimethylbutylethyl-
ene was established. The difference in the schemes of
isomerization of normal olefins into branched chain
(Chemistry--Organic, TT, v. 6, no. 9) (over)

61-16934

I. Petrov, A. D.
II. Shchukin, V. I.

Office of Technical Services

Petrov, A. D., Verentsova, N. I., and
Kokleeva, T. A.
SYNTHESIS OF 2-METHYL-4-HEXYNE AND
2,6-DIMETHYL-3-HEPTYNE. [1961] 5p. 12 refs.
Order from OTS or SLA \$1.10 61-16935

Trans. of Zhurnal Obshchei Khimii (USSR) 1941,
v. 11, p. 1096-1099.

DESCRIPTORS: Hydrocarbons, Synthesis, Antiknock,
*Fuels, Methyl radicals, *Heptynes, *Hexynes.

Synthesis of two new hydrocarbons is reported,
2-methyl-4-hexyne and 2,6-dimethyl-3-heptyne. Anti-
knock properties of acetylenic hydrocarbons have been
evaluated. (Author)

(Chemistry--Organic, TT, v. 6, no. 9)

61-16935

I. Petrov, A. D.
II. Verentsova, N. I.
III. Kokleeva, T. A.

Office of Technical Services

61-16936

I. Petrov, A. D.
II. Karlik, L. D.

Office of Technical Services

Petrov, A. D. and Karlik, L. D.
SYNTHESIS OF GLYCOLS OF THE ACETYLENE
SERIES. [1961] 5p. 16 refs.
Order from OTS or SLA \$1.10 61-16936

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,
p. 1100-1103.

DESCRIPTORS: *Glycols, Synthesis, *Acetylenes,
Alcohols, Antiknock.

Synthesis of three acetylenic γ -glycols is reported:
5-decyne-4,7-diol, 9-octadecyne-8,11-diol, 10,13-
dimethyl-11-docosyne-10,13-diol. The method of
synthesis of glycols and alcohols of the acetylene
series suggested by L. Kazaryan was tested. Anti-
knock properties of acetylene alcohols and their sus-
ceptibility to tetraethyllead was studied. (Author)

(Chemistry--Organic, TT, v. 6, no. 7)

Petrov, A. D., Pavlov, A. M., and Makarov, Yu. A.
SYNTHESIS OF 3-ETHYLDECANE AND 2,5-DI-
METHYLUNDECANE. [1961] 3p. 4 refs.
Order from OTS or SLA \$1.10 61-16937

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,
p. 1104-1106.

DESCRIPTORS: Synthesis, Antiknock, Halogenation,
*Hydrocarbons, Chain reactions, *Fuels, Ethyl
radicals, Methyl radicals.

Syntheses of two new paraffins are reported, 3-ethyl-
decane and 2,5-dimethylundecane. Antiknock properties
and pour points of three normal and branched chain
paraffins with 12 and 13 carbon atoms have been
evaluated. (Author)

(Chemistry--Organic TT, v. 6, no. 9)

61-16937

I. Petrov, A. D.
II. Pavlov, A. M.
III. Makarov, Yu. A.

Office of Technical Services

Petrov, A. D. and Lapteva, E. I.
SYNTHESIS AND PROPERTIES OF SOME HIGHER
HOMOLOGS OF BENZENE. [1961] 5p. 12 refs.
Order from OTS or S.A. \$1.10 61-16938

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,
p. 1107-1110.

DESCRIPTORS: *Benzenes, Synthesis, Antiknock,
Chain reactions, Hydrocarbons.

Three new homologs of benzene with branched side
chains were synthesized, methylcyclohexylmethane,
dicyclohexylmethane and dimethylpentadecyl-
phenylmethane. Antiknock properties of these and some
other representatives of the series C_6H_5R with
branched and normal paraffin chains were evaluated.
(Author)

(Chemistry--Organic, TT, v. 6, no. 7)

61-16938

I. Petrov, A. D.
II. Lapteva, E. I.

Office of Technical Services

Synthesis and Properties of Branched Acids, Series $C_nH_{2n}COOH$, Composition C_nH_{2n}O₂, by H. G. I. Nildshin, Yu. N. Ogibin, A. D. Petrov, 1960, pp. 3543-3547.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 11, 1960, pp 3543-3547

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Petrov, A. D. and Azatyan, V. D.
SYNTHESIS OF HYDROCARBONS OF THE ACETYLENE SERIES. [1961] [14]p. 115 refs.
Order from OTS or SLA \$1.60 61-16870

Trans. of Uspekhi Khimii (USSR) 1940, v. 9, no. 5,
p. 498-521.

DESCRIPTORS: *Hydrocarbons, *Acetylenes,
Synthesis.

The first part of a program of synthesis of acetylenes and evaluation of their antiknock properties is reported. The literature on the subject is reviewed, physical constants of 57 known acetylenes are tabulated and a bibliography given comprising 115 items including unpublished work of the author and his co-workers. Blending octane numbers of five acetylenes were obtained. (Author)

(Chemistry--Organic, TT, v. 6, no. 7)

61-16870

I. Petrov, A. D.
II. Azatyan, V. D.

Office of Technical Services

Petrov, A. D., Koptev, V. I., Kaplan, E. P.
**SYNTHESIS AND PROPERTIES OF ISOPARAFFINS
WITH FROM 9 TO 12 CARBON ATOMS. [1961] 5p...**
12 refs.

Order from OTS or SLA \$1.10

61-18176

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk. Izvestiya, 1944 [no. 1] p. 152-155.

DESCRIPTORS: *Hydrocarbons, Synthesis, Molecular isomerism, Antiknock, Properties.

Synthesis of five isoparaffins with from 9 to 12 carbon atoms and different extent of branching of the chain was effected through the tertiary alcohols by a Grignard reaction; of these, 2,2,3,5-tetramethylhexane was synthesized for the first time. It was shown that hydrocarbons of the above mentioned composition possessing two quaternary carbons or one quaternary and two tertiary carbon atoms have high octane numbers of the order of about 100. (Author)

(Chemistry--Organic, TT, v. 6, no. 6)

61-18176

- I. Title: Isoparaffins
- I. Petrov, A. D.
- II. Koptev, V. I.
- III. Kaplan, E. P.

Office of Technical Services

61-18174

Petrov, A. D. and Vittikh, M. V.
SYNTHESIS AND PROPERTIES OF ISOPARAFFIN
HYDROCARBONS WITH 13 TO 24 CARBON ATOMS IN
THE MOLECULE. [1961] 5p. 6 refs.
Order from ODS or SLA \$1.10 61-18174

1. Title: Isoparaffins
I. Petrov, A. D.
II. Vittikh, M. V.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1944 [no. 1] p. 238-242.

DESCRIPTORS: *Hydrocarbons, Molecular isomerism,
Synthesis, Properties.

On the example of six isoparaffins with a T-like struc-
ture containing from 13 to 24 carbon atoms in the
molecule, for the most part newly synthesized com-
pounds, it was demonstrated that the hydrocarbons of
this type with from 21 to 24 carbon atoms are dis-
tinguished by cetene numbers close to 100 and
sufficiently low pour points. (Author)

Office of Technical Services

(Chemistry--Organic, TT, v. 6, no. 6)

61-18010

Petrov, A. D.
FUEL FOR HIGH SPEED DIESELS. [1961] 7p. 13 refs.
Order from OTS or SLA \$1.10 61-18010

L. Petrov, A. D.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1941, no. 4/5, p. 533-543.

DESCRIPTORS: *Diesel engines, *Fuel oil, *Aviation
fuels

A discussion is given of cracked Diesel fuels and the
outlook for synthesis of low pour point components of
fuels for aviation Diesels. (Author)

Office of Technical Services

(Materials--Fuels, TT, v. 6, no. 6)

Synthesis and Reactions of Organo-Silicon, Germanium,
and Tin Compounds, by A. D. Petrov.

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Acylation of Silicohydrocarbons and Synthesis
of Silicon-Containing α -Methylstyrenes, by
E. A. Chernyshev, Ye. N. Klyukina, A. D. Petrov,
5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 9, 1960, pp 1601-1606.

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Nitration of Aromatic Sila-Hydrocarbons in
Which the Aromatic Ring Occupies Various
Positions with Respect to the Silicon Atom,
by E. A. Chernyshev, M. E. Dolgaya, A. D.
Petrov, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, (Izvestiia Khim
Nauk, No 8, 1960, pp 1424-1428.

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Synthesis and Properties of 4-Alkyl- and 4, 4'-
Dialkylbiphenyls of Composition C₁₆-C₃₂ and Their
Hydrides, by E. P. Kaplan, Z. I. Kazakova, A. D.
Petrov, 7 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 2, 1960,
pp 369-375.

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Interaction of 2, 2, 3, 3-Tetramethylpentanone-4 With
Alkylolithiums, by A. D. Petrov, Kao Ch'ing-lang, V. M.
Semenkin, 6 pp.

RUSSIAN, per, Zhur Obahch Khim, Vol XXX, No 2, 1960,
pp 363-368.

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Synthesis of Diphenylalkanes by the Wurtz Reaction
in Tetrahydrofuran or Methylal, by A. D. Petrov,
E. P. Zakharov, Yu. M. Zaver'yayev, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 9, 1960,
pp 2838-2845.

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Properties of C₁₄-C₂₈ Naphthene Hydrocarbons of
Variable Structure, by A. D. Petrov, B. D. Zaloga,
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RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 6,
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Synthesis of Polymers Having Alternating Siloxane
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RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 6, 1959, pp 1139-1142.

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Synthesis of 2-Alkyl- and 2-Aryl-Biphenyls, by
A. D. Petrov, E. P. Kaplan, 5 pp.

RUSSELL, per, Iz Ak Nauk SSSR Otdel Khim Nauk, No 1,
1963, pp 161-165.

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Reaction of tert-Butyl Lithium with Esters, by
A. D. Petrov, E. B. Sokolova, Kao Ching-lang,
10 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 4,
1963, pp 1107-1116.

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The Reaction of 1-Naphthylmagnesium Bromide with
Esters of Malic Carboxylic Acids, by A. D. Fetisov,
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(NY-4844)

The Catalytic Hydrogenation and Polymerization of
Acetylene-Hydrogen Mixtures. The Synthesis of
Isobutylene From Acetylene and Hydrogen, by A. D.
Petrov, L. E. Antonov, 8 pp.

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Sci - Chem

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Reaction of Symmetrical Tetraalkyldisiloxanes With
Dialkenyldialkylsilanes and With Symmetrical
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V. M. Vdovin, 3 pp.

RUSSIAN, per, Iz Ak Nauk BSSR, Otdel Khim Nauk, No 5,
1959, pp 939, 940.

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Polymerization of Propene Over a Zinc Chloride
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Addition of Hydride Silanes to Alkenylbenzenes in the
Presence of Chloroplatinic Acid, by A. D. Petrov,
E. A. Chernyshev, M. E. Dolgaya, 7 pp.

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Petrov, A. D., Nikishina, G. I. and others.
THE DEPENDENCE OF THE SURFACE-ACTIVE
PROPERTIES AND WASHING CAPACITY OF SOLU-
TIONS OF ALKYL BENZENE SULPHONATES ON
THE LENGTH AND STRUCTURE OF THEIR ALKYL
CHAIN (Zavisimost' Poverkhnostno-Aktivnykh Svoystv
i Moyushchey Sposobnosti Rastvorov Alkilbenzol-
sulfonaty i Velichiny i Struktury ikh Alkil'noy
Tsepi). May 59 [8] p. 5 refs. C. T. S. no. 633.
Order from LC or SLA mi\$1.80, ph\$1.80 61-15371

Trans. of Masloboyno-Zhirovaya Promyshlennost'
(USSR) 1958, v. 24, no. 8, p. 23-29.

Tests showed that the washing capacity of solutions of
alkyl benzene sulphonates depends on the length of the
chain and its branches: the longer and the less
branched, the greater the washing capacity. Com-
pounds having a straight or only slightly branched
chain containing 12 carbon atoms are effective at
higher temperatures than compounds having a
(Materials TT, v. 5, no. 8) (over)

61-15371

1. Sulfonates--Surface properties
 2. Detergents--Surface properties
 3. Sulfonates--Molecular structure
- I. Petrov, A. D.
II. Nikishina, G. I.
III. CTS-633
IV. Department of Scientific and Industrial Research (Gt. Brit.)

Office of Technical Services

Organomagnesium Synthesis of 2- and 3-(Trimethylsilyl)
Acrylic Acids and Vinyl Derivatives of Silicon,
Germanium, and Tin, by V. F. Mironov, A. D. Petrov,
N. G. Maksimova, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11,
1959, pp ~~XVI~~ 1954-1960.

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Relative Reactivities of Some Organosilicon, Organo-
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Spectra, by V. F. Mironov, Yu. P. Egorov, A. D.
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RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 8,
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Synthesis and Properties of Salts of Acids and of
Sulfo Esters of Alcohols With Alkylaromatic
Hydrophobic Radicals, by A. D. Petrov, G. I. Nikishin,
V. N. Gravenitakaya, 4 pp.

KHESLAN, per, Zhur Obshch Khim, Vol XXX, No 3, 1960,
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Synthesis and Properties of α, ω -Polychlorodisilanes, by V. M. Vdovin, A. D. Petrov, 7 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 3, 1960, pp 838-844.

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Syntheses of Aliphatic Aromatic Silanes and Their
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G. M. Marukyan, 5 pp.

RUSSIAN, per Zhur Obshch, Vol XXX, No 1, 1960,
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Interaction of Isopropylolithium With Esters, by
A. D. Petrov, Kao Chin-lang, E. I. Alipova, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXIX, No 10,
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Synthesis and Reactions of Vinyl Esters of
Silanols, by S. I. Sadykh-Zadeh, A. D. Petrov,
5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXIX, No 10,
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Catalytic Hydrogenation of Silicon-Containing
Nitriles and the Fiber-Forming Properties of Poly-
amides Based on the Amines Obtained, by A. D.
Petrov, L. Kh. Freidlin, G. I. Murav'ev,
Kudryavtsev, T. A. Sladkova, V. M. Vainin, T. I.
Shein, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIX, No 5,
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Catalytic Polymerization of Propylene-Propane Mixtures
Over Phosphoric Acid on Kieselguhr, by L. I. Antsus,
A. D. Petrov, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIX, No 1, 1959,
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On the Addition of Hydrosilanes to Dimethyl
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Synthesis of Organosilicone Monomers, by A. D.
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Reaction of Triethylsilane With Secondary and
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of H_2PtCl_6 , by A. D. Petrov, I. M. Gverdtsiteli,
K. I. ~~Cherkashvili~~, 3 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIX, No 4,
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Synthesis and Reactions of β -Cyanoethylsilanes,
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RUSSIAN, per, Zhur Obshch Khim, Vol XXIX, No 9,
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The Addition of Silicohydrocarbons to α ,
 β -Unsaturated Acids and their Esters, by A. D.
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RUSSIAN, per, Zhur Obshch Khim, Vol XXIX, No 9,
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The Condensation of Halo Alcohols With Benzene
Under the Influence of Sulfuric Acid, by V. N.
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Determination of the Structure of Paraffin and
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RUSSIAN, per, Zhur Anal Khim, Vol XIV, No 5, 1959,
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A New Method for the Synthesis of Aromatic Organo-
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A. D. Petrov, 4 pp.

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Isolation of o-Terphenyl From Still Residues in
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3 pp.

RUSSIAN, per, Zhur Prik Khim, Vol XXXIII, No 5,
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Synthesis of Organosilicon Monomers From
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RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXVI, No 5,
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Member of AN SSSR, by A. D. Petrov, V. V. Pisarenko,
4 pp.

RUSSIAN, Izv. Dok Ak Nauk SSSR, Vol CXXIV, No 1,
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Fluorosilicoorganic Compounds. A Study of the
Addition of Alkylchlorosilicon Hydrides to 1,1,2,2-
Tetrafluoroethyl Allyl Ether, A. D. Petrov, V. A.
Ponomarenko, G. V. Odabaahyan, S. I. Krokhtmalev, 4 pp.

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Synthesis and Hydrogenation of 1,4,7-Triphenylheptane
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