

Special Geodetic Assignment: XLVII. The Abastumani
Astrophysical Observatory, by Ye. K. Kharadze, 19 pp.

RUSSIAN, bk, Abastumanskaya Astrofizicheskaya
Observatoriya Akademiya Nauk SSSR, 1958.

AF SIR-3027

Sci - Geofiz
Jun 59

88,999

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Observatoriya, Syulotten, No 18, 1958.

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German ed. 1953, by V. M. Ramm.

Translated from the Russian edition, 1951.

DSIR 66.09
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Sr and Cu Conducting Films by Chemical
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RUSSIAN, per, Academia Republica
Populara Romania. Studii Si Cercetari
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pp 525-527.
*FTD-TT-65-1194

Sci/Chemistry
Sep 65

Photographic Investigations of the Libration Point L₃
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pp 165-169. 9696183
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T-G-64-35

Sci - ES & A
Mar 65

273,073

The 4.5 CM Solar Energy Observed on the Day
of the Annular Eclipse of the Sun on
April 4, 1958, by Marchanov, and Petelova,
6 pp.

RUSSIAN, per, Acta Astronomica Sinica, Vol VII,
No 1, 1959, 3 pp. 9676522

FTD MEL-1384/1

Sci - Astron, Phys

194, 099

3 May 62

Studies on the extraction of red Kober color by
organic solvents for estrogen determination in
urine, by G. Ittrich
RUSGIA, per, Acta Endocr (Copenhagen), Vol 35,
1960, pp 34-48
MIL. NIN 6-12-67

Bio & Med
July 67

332,991

Antibiotic Effect of Certain Penicillium Fungi on
Staphylococcus in Vitro and in Vivo,
by A. Z. Joffe, A. Jachovickas, et al.
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1958, pp 185-192.
SFCSE TT 65-50109

BGI/DAI
Aug 65

287,379

Pavlovskii, E. N.
THE NATURAL FOCI OF TICK-BORNE ENCE-
PHALITIS [Die Naturherde der Zeckenencephalitis].
[1961] [14]p. (4 figs. omitted) 20 refs. NAMRU
Trans. 29(T29).

Order from OTS or SLA \$1.60

62-13927

Trans. of Acta Medica USSR, 1940, v. 3, no. 3,
p. 187-199.

Another trans. is available from OTS or SLA \$2.60 as
62-13930, 25 May 53, 25p.

DESCRIPTORS: *Encephalitis, *Ticks

(Biological Sciences--Pathology, TT, v. 8, no. 1)

62-13927

- I. Pavlovskii, E. N.
- II. NAMRU Trans-29
- III. Naval Medical Research
Unit No. 3, Cairo, Egypt

Office of Technical Services

Grohl, W. and Ammann, D.
CONCERNING THE DEPENDENCE OF THE GRAIN
BOUNDARY PRECIPITATION ON THE ORIENTATION
OF THE NEIGHBORING CRYSTALS. 10p (9 figs 20 refs
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Order from SLA \$1.10

TT-64-16727

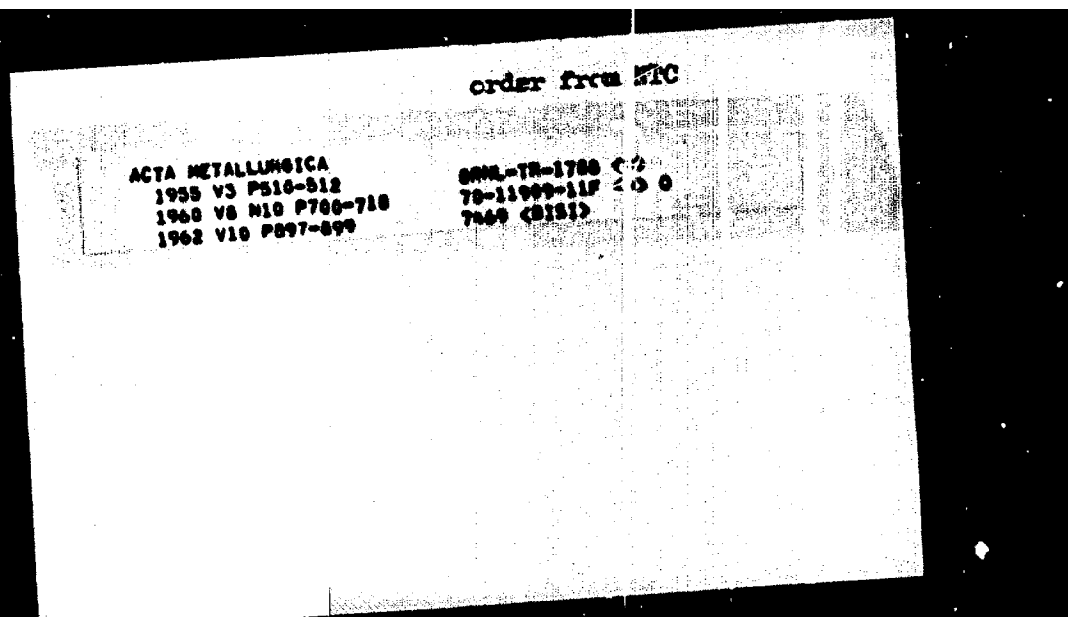
Trans. of Amer. Metallurgical (U.S.) 1955, v. 3 [no. 4]
p. 367-383.

(Metallurgy--Structural, TT, v. 12, no. 4)

TT-64-16727

I. Grohl, W.
II. Ammann, D.

Office of Technical Services



The Nature of the Conductivity of Non-Aqueous
Solutions, by M. Ulanovich, 21 pp.

RUSSIAN, per, Acta Physicochimica URSS, Vol II,
No 2, 1935, pp ~~239-271~~.

Sci Mus Lit - 56/0303

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Sci - Chemistry

May 1956

33, 746

Pleskow, W. A. and Monossohn, A. M. ELECTRODE POTENTIALS OF SODIUM AND POTASSIUM IN LIQUID AMMONIA (Die Elektrodenpotentiale des Natriums und Kaliums in Flüssigem Ammoniak). Nov 60 [11]p. 8 refs. Order from L.C. or S.A. \$2.40, plus \$3.30 AEC-tr-4250 Trans. in manuscript of Acta Physicochimica U. R. S. S. 1935, v. 2, p. 615-620. 148, 724	61-13923 I. Alkali metal-ammonia systems - Conductivity 1. Pleskow, W. A. II. Monossohn, A. M. III. AEC-tr-4250 IV. Michigan State U., East Lansing V. Contract AT (11-1)312
(Unannounced)	Office of Technical Services

tp 30

US-1

V. A. PLESKOV, A. M. MONOSZON

Electrode potentials in water and liquid ammonia

Acta Physicochim. URSS, 2, 621-632 (1935). University
of Michigan

English

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Combined Approximation Method for Energy
Calculation in the Many-Electron Problem,
by H. Hellman.
RUSSIAN, per, Acta Physicochimica URSS,
Vol I, No 6, 1935, pp 913-940.
NASA TT F-10,848

Sci-Phys
Jun 67

327,301

Investigations of the Flame of CO and C₂, 1. The
Influence of Pressure on the Intensity of the
Visible Radiation From the Flame, by H.
Kondratyev, N. Kondratyev, 2 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S., Vol. IV,
No 4, 1936.

Available
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Sci

Aug 60

121,713

Dubinin, M. and Saverina, E.
THE POROSITY AND ADSORPTION PROPERTIES OF
ACTIVATED CHARCOAL. [1960] 17p. 10 refs.
Order from SLA \$1.00 62-16187

Trans. of Acta Physicochimica [U. R. S. S., 1936,
v. 4, no. 5, p. 647-674.
Another trans. is available from ATS \$21.95 as
ATS-55M43G [1960] 17p.

DESCRIPTORS: Activated carbon, Charcoal, Adsorption,
Porosity, Physical chemistry.

(Unannounced)

62-16187

I. Dubinin, M.
II. Saverina, E.

(Office of Technical Services)

Slygin, A., Frumkin, A., and Medvedevskii, W.
PLATINUM ELECTRODES. II. THE ADSORPTIVE
PROPERTIES OF THE PLATINUM ELECTRODE
(Über die Platinalektrode) tr. by F. Hadsell.
Jan 61 (27p. 10 refs. NF-tr-598.
Order from OTS or SLA \$2.60

63-23290

Trans. of Acta Physicochimica U. S. S. S., 1936,
v. 4, no. 6, p. 911-928.

DESCRIPTORS: *Electrodes, *Platinum, Adsorption.

(See also 63-23291

(Chemistry--Physical, TT, v. 10, no. 8)

63-23290

- I. Slygin, A.
- II. Frumkin, A.
- III. Medvedevskii, A.
- IV. NF-tr-598
- V. Atomic Energy Research
Establishment (Ox. Brit.)

Office of Technical Services

Roginskii, S. and Schechter, A.
CHEMICAL REACTIONS IN ELECTRICAL DIS-
CHARGES. III. INVESTIGATION OF THE HETERO-
GENEOUS RECOMBINATION OF ATOMS (Chemische
Reaktionen in Elektrischen Entladungen. III. Unter-
suchung der Heterogenen Rekombination von Atom) tr.
by Jerome Danburg. Oct 62 [20]p. 9 refs. AmMetSoc
T-G-186.

Order from OTS or SLA \$1.60

63-19207

Trans. of Acta Physicochimica U. R. S. S., 1937, v. 6,
no. 3, p. 401-418.

DESCRIPTORS: *Electrical discharges, *Chemical
reactions, *Recombination reactions, *Hydrogen,
*Nitrogen, *Oxygen, *Platinum catalysts, *Tungsten,
*Argon, Stabilization, Metals, Oxides, Surfaces

The recombination of hydrogen and nitrogen atoms on
Pt and W over a wide range of temperature was investi-
(Chemistry--Physical, TT, v. 10, no. 2) (over)

63-19207

- I. Roginskii, S.
- II. Schechter, A.
- III. AmMetSoc-T-G-186
- IV. American Meteorological
Society, Boston, Mass.
- V. Contract AF-19(604)6113
- VI. Title: Investigation...

Office of Technical Services

Investigations of the Flame of CO and O₂.
II. The Influence of the Composition of the
Mixture on the Intensity of the Visible
Radiation From the Flame, by T. Kondratyeva,
V. Kondratyev, 12 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol VI, No 4, 1937.

Available
in English
at LQ

Sci
Aug 60

121,701

Investigations of the Flame of CO and C_2
III. The Absolute Intensity of the Electronic
Radiation From the Flame, by H. Kondratyev,
V. Kondratyev, 7 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol VI, No 5, 1937.

Available
in English
at LC

121,700

Sci
Aug 60

The Light Absorption and Absolute Concentration
of Hydroxyl, by L. Avramenko, V. Kondratyev,
14 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol VII, No 4, 1957.

Available
in English
at LC

Sci

Aug 60

121,723

The Maximum Valence of Elements and Atomic Structure (XV). The Formation of Chemical Compounds and the Periodic System of Elements, by B. Ormont, 42 pp.

Full translation.

RUSSIAN, per, Acta Physicochim. URSS, Vol VIII, 1938, pp 811-847.

AEC Tr 1331

Scientific - Nuclear Physics, Chemical Compounds, Elements

AUG 52 G.S./DSY

On the Mechanism of the Recombination of OH
Radicals in the Electric Discharge, by
V. Kondratyev, 8 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.
Vol VIII, No 3, 1938.

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at LI:

Sci

AUG 60

121,704

The Combustion of Explosives, by A. F. Kulayev,
10 pp.

RUSSIAN, PER, ~~Acid Physicochemical~~ ~~U.S.S.R.~~
Vol VIII, No 6, 1978.

Available
in English
at IC

Sci

Aug 60

121,766

Study of the Organic Peroxides Forming During the
Decomposition by Oxidation of Saturated Hydrocarbons,
by K. I. Ivanov, 29 pp.

RUSSIAN, per, Acta Physiologica, 1938, Vol IX, No 3/4,
pp 421-452.

SLA R Tr R-819

Sci - Chemistry, fuels
Oct 57

54,478

The Chain Character of the Oxidation of Hydrides,
by N. N. Semenov, 22 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol IX, No 3, 1953

Available
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at LC

Sci

Aug 60

121,703

(NY-4839).

The Theory of the Thermal Explosion. II. Thermal
Explosion for Monomolecular Reactions, by O. K.
Todes, P. V. Melentjev, 26 pp.

RUSSIAN, per, Acta Physicochimica 1939,
Vol XI, No 2, 1939, pp 153-180.

JPRS 7033

Sci - Phys
22 Nov 60

133,830

On the Use of Resonance in Solids and Liquids
Substances, by N. S. Bolnovitskii, 10 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.
Vol. X, No. 4, 1950.

Available
in English
at LC

Sci

Aug 60

121, 767

Adsorption of a Gas Accompanied by Its
Dissociation, by G. I. Leypunsky, 10 pp.

RUSSIAN, per, Acta Physicochemica U.R.S.S., Vol X,
No 4, 1959.

Available
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Aug 60

121,710

On the Mechanism of the Recombination of the
Hydroxyl Radical in the Electric Discharge
Through Water Vapour, by V. Kondratyev, 14 pp.

RUSSIAN, per, Acta Physicochimica
Vol X, No 6, 1959.

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Sci.

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12/10/60

Investigations of the Flame of CO and O₂,
VI. Photochemical Oxidation of CO Near the Region
of Self-Inflammation, by H. Kondratyev,
V. Kondratyev, 8 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.
Vol X, No 6, 1959.

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Sci

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121.722

Pastovskii, V. G. and Gurvich, Y. G.
INVESTIGATION OF THE EQUILIBRIUM BETWEEN
LIQUID AND GAS IN THE BINARY SYSTEM OXY-
GEN-KRYPTON. [1960] 11p.
Order from ATS \$14.45

AT-SJM47G

Trans. of Acta Physicochimica U. R. S. S. 1939,
v. 11, no. 6, p. 883-898.

DESCRIPTORS: *Oxygen, *Krypton, Liquids, Gases,
Chemical equilibrium.

(Chemistry--Physical, TT, v. 10, no. 1)

61-12653

I. Pastovskii, V. G.
II. Gurvich, Y. G.
III. ATS-SJM47G
IV. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

Investigations of the Flame of CO and O₂
VII. The OH Radical in Flames of Moist Carbon
Monoxide, by H. Kondratyeva, V. Kondratyev, 8 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.
Vol XII, No 1, 1956.

Available
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121,706

Production of Sulphur Monoxide by Photochemical
Processes, by A. Jakovleva, V. Kondratyev, 6 pp.

RUSSIAN, ENG; Acta Physicochimica U.R.S.S.,
Vol. VII, No 2, 1960.

Available
in English
at LC

Sci

Aug 60

121,708

Kinetics of Ammonia Synthesis on Promoted Catalysts,
by M. Temkin, V. Pyshov,

RUSSIAN, no per, Acta Physicochimica [USSR], Vol XII,
No 3, 1940, pp 327-336.

Assoc Tech Sv RJ-308

Scientific - Chemistry

36,522

(\$5.50)

The Radiation of the Low-Temperature Flame of
Carbon Disulphide, by V. Kondratyev, 10 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol XII, No 5, 1940.

Available
in English
at LC

Sci

Aug 60

121,707

Chemical Action of IR. sound, by E. S. Urazov'-
skiy and I. G. Polotnitskiy; 3 pp.

RUSSIAN, per, Acta Physicochim USSR, Vol XIII,
1940, pp 443-453.

SLA R-2624

Sci

Aug 58

72,725

(NY-4839)

The Theory of the Thermal Explosion. Part IV.
Study of Heat Transfer in Closed Containers for the
Purpose of Determining the Explosion Constants,
by O. M. Todes, B. N. Naraia, 25 pp.

RUSSIAN, per, Acta Physicochimica U. R. S. S., Vol XI /
No 1, 1941, pp 53-70.

JPRS 7055

135,822

Sci - Phys

Dec 60

Syrkin, Ya. and Dyatkina, M.
THE STRUCTURE OF NAPHTHALENE MOLECULE.
[1961] 4p. 4 refs
Order from OTS or SLA \$1. 10

61-16873

Trans. of Acta Physicochimica U. R. S. S. R., 1941, v. 14,
no. 1, p. 105-118.

DESCRIPTORS: *Naphthalenes, Molecular structure,
Molecules

The peculiarities of the behavior of naphthalene are
discussed under consideration of the proposed theories
of the structure of its molecule. The reactions of
naphthalene can be explained from the quantum mechan-
ical point of view.

(Chemistry--Organic, TT, v. 6, no. 8)

61-16873

L. Syrkin, Ya.
M. Dyatkina, M.

105-118

Office of Technical Services

Krichinskii, I. R. and Levchenko, G. T.
THE COMPRESSIBILITY OF GAS MIXTURES: THE
p-v-T DATA FOR BINARY AND TERNARY MIX-
TURES OF METHANE, NITROGEN AND HYDROGEN.
[1961] 2p. 20 refs.
Order from OTS or SLA \$1.10

61-16871

Trans. of Acad. Physicochemical U. R. S. S., 1941,
v. 14, no. 2, p. 271-278

DESCRIPTORS: *Gases, *Methane, *Nitrogen,
*Hydrogen, Physical properties, Chemical properties,
Mixtures, Pressure, Temperature, Volume

A study was made of the compressibility of the binary
mixtures methane-nitrogen (three compositions) and
methane-hydrogen (two compositions) at the tempera-
tures 0°, 50°, 100°, 150°, and 200°C and pressures
from 100 to 700 atm. The compressibility of the ternary
mixtures methane-nitrogen-hydrogen (three composi-
(Chemistry-Physical, FI, v. 6, no. 8) (over)

61-16871

I. Krichinskii, I. R.
II. Lechenko, G. T.
III. Title: p-v-T...

135116

Office of Technical Services

Bolshakov, P. and Eberman, A.
THE COMPRESSIBILITY OF HYDROGEN-NITROGEN-
METHANE MIXTURES AT HIGH PRESSURES. [1961]

Sp. 18 refs.

Order from OTS or SLA \$1.10

61-16872

Trans. of Acad. Physicochimica U. R. S. S., 1941,
v. 14, no. 3, p. 365-370.

DESCRIPTORS: *Hydrogen, *Nitrogen, *Methane,
Mixtures, High pressure research.

61-16872

I. Bolshakov, P.
II. Eberman, A.

61-16872

Office of Technical Services

(Chemistry-Physical, TT, v. 6, no. 7

Gutsmakher, A. and Medvedev, S.
THE CHANGE IN THE RAMAN SPECTRA OF
CHLOROPRENE AND ISOPRENE IN THE POLYMERI-
ZATION PROCESS. [1961] 3p. 11 refs.
Order from OTS or SIA \$1.10 (1-16667)

Trans. of Acis Physicochemicals U. S. S. R. 1942,
v. 16, no. 1/2, p. 1-11.

DESCRIPTORS: *Chloroprenes, *Isoprene, *Raman
spectroscopy, Polymerization.

(Physics--Spectroscopy, TT, v. 6, no. 7)

61-16667

I. Gutsmakher, A.
H. Medvedev, S.

1961/71

Office of Technical Services

Krichevskii, I. and Gamburg, D.
SOLUBILITY OF LIQUIDS IN COMPRESSED GASES:
SOLUBILITY OF BENZENE IN COMPRESSED
NITROGEN. [1961] 4p. 35 refs.
Order from OTS or SLA \$1.10

61-16642

Trans. of Acta Physicochimica U. R. S. S. 1942,
v. 16, p. 363-375.

DESCRIPTORS: *Liquids, *Benzene, Solubility,
*Nitrogen, Solvent action, Gases.

The solubility of benzene in compressed nitrogen was studied at temperatures from 35° to 100°C and pressures up to 1100 kg/sq cm. The shape of the solubility curve of the substance in the compressed gas is discussed qualitatively. It was proved experimentally that on the solubility curve of benzene in compressed nitrogen there is not only a minimum, but also a point of inflection. With increasing pressure, the partial molar volume of benzene dissolved in nitrogen passes through a minimum. (Author)

61-16642

I. Krichevskii, I.
II. Gamburg, D.
III. Title: Solubility...

125104

Office of Technical Services
(Chemistry-Physical, TT,
v. 4, no. 8)

Photochemical Oxidation of COG. by V. N.
Kondratyev, 10 pp.

RUSSIAN, par, Acta Physicochimica U.R.S.S., Vol XVI,
No 5, 6, 1962.

Available
in English
at LC

Sci

Aug 60

121,711

Balandin, A. A., Marushkin, M. N., and
Afanasev, M. M.
CONTACT DECOMPOSITION OF HYDROCARBONS:
CONVERSION OF NORMAL-BUTANE UNDER THE
ACTION OF CARBON DIOXIDE OVER NICKEL-
ALUMINA CATALYSTS. [1961] 4p. 25 refs.
Order from OTS or SLA \$1.10 61-16643

Trans. of Acta Physicochimica U. R. S. S. 1942,
v. 17, p. 83-92.

DESCRIPTORS: *Hydrocarbons, *Butanes, Decomposi-
tion, *Carbon dioxide, *Alumina-nickel catalysts,
Catalysts, Chemical reactions.

The conversion of n-butane and carbon dioxide over
nickel-alumina is investigated experimentally. A
scheme of the reaction mechanism is given which ac-
counts for successive shortening of the carbon chain
and explains the formation of carbon, being in accord-
(Chemistry--Organic, TT, v. 6, no. 10) (over)

61-16643

I. Balandin, A. A.
II. Marushkin, M. N.
III. Afanasev, M. M.
IV. Title: Conversion...

16643

Office of Technical Services

Belandin, A. A. and Kostin, F. K.
KINETIC STUDY OF DEHYDROGENATION OF
CYCLOHEXANE. [1961] 2p. 11 refs.
Order from ODS or SLA \$1.10

61-16644

Trans. of Acad. Physicochimica U. R. S. S., 1942, v. 17,
p. 212-217.

DESCRIPTORS: *Dehydrogenation. *Cyclohexanes.
Catalysts. Hydrocarbons. Benzene. Reaction kinetics

The catalytic dehydrogenation of cyclohexane was in-
vestigated over copper on chromium oxide, copper on
chromium oxide with admixture of boron oxide and
chromium oxide or chromium chromate. The influence
of temperature upon the reaction rate was studied.
Benzene is the predominating resulting product. Its
yield at 540° is about 100%, 13% and 51% with the first,
second and third catalysts, respectively. The conclu-
sion is reached that on the active border lines of the
(Chemistry--Physical, CI, v. 6, no. 8) (over)

61-16644

I. Belandin, A. A.
II. Kostin, F. K.

125105

Office of Technical Services

Frank-Kamenetskii, D. A. and Markovich, V. G.
ISOMERIZATION EQUILIBRIUM ALLENE $\rightleftharpoons$ METHYL-
YLACTEYLENE. [1961] [2]p. 6 refs.
Order from OTS or SLA \$1.10 61-16653

Trans. of Acta Physicochimica U. R. S. S., 1942,
7, p. 308-313.

DESCRIPTORS: *Alkenes, *Propynes, isomeric
transitions, Chemical equilibrium.

The equilibrium constant for the isomerization of allene
has been calculated by the statistical method, from the
spectroscopic data and the heats of hydrogenation ob-
tained by Kistiakowsky and co-workers. The experi-
mental data of Slobodine concerning this equilibrium are
discussed, and it is concluded that, owing to the experi-
mental difficulties, the theoretical values are more
trustworthy. An error in the estimation of the entropy
of allene given by Linnert and Avery is corrected.
(Author)

61-16653

I. Frank-Kamenetskii, D. A.
II. Markovich, V. G.

61-16653

Office of Technical Services
(Chemistry--Physical, TT, v. 6,
no. 8)

Avramenko, L. I.
HYDROXYL IN FLAMES. II. HYDROXYL IN ACET-
YLENE FLAME. [1962] 3p. 4 refs.
Order from OTS or SLA \$1.10 62-14615

[Condensed] trans. of Acta Physicochimica U. R. S. S.,
1943, v. 18, no. 1, p. 58-60.

DESCRIPTORS: *Hydroxides, *Acetylene, Hydrocar-
bons, *Flames.

(Chemistry--Physical, FI, v. 8, no. 7)

62-14615

I. Avramenko, L. I.
II. Title: Hydroxyl ...

Office of Technical Services

On the Reaction of Water Gas Conversion in
Quartz Vessels, by V. Kowratyev, M. Ziskin,
13 pp.

RUSSIAN, par, Acta Physicochimica U.R.S.S.,
Vol XVIII, No 4, 1963.

Available
in English
at LC

Sci

Aug 60

121,705

Rapid Combustion in Rough Tubes, by V. Diment,
X. Shchelkin, 12 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol XIV, No 4, 1966.

Available
in English
at LC

Sci

Aug 60

121,712

Roginskii, S. and Tselinskaya, T.
EXPERIMENTAL INVESTIGATION OF THE ROLE OF
SUPERSATURATION IN THE PREPARATION OF
CATALYSTS. [1951] 7p. 40 refs.
Order from UT5 or SLA \$1.10

61-18172

I. Roginskii, S.
T. Tselinskaya, T.

Trans. of Tech. Physicochem. U. R. S. S., 1944,
v. 19, p. 225-247.

DESCRIPTION: Nickel compounds. Nickel compounds.
Catalysis, Catalysis, Decomposition.

The decomposition of nickel carbonate is shown to
proceed as an autocatalytic process. The reaction
velocity increases with rising reaction supersaturation.
An extremely rapid reaction is observed at
partial pressures of carbon dioxide from 10^{-4} to 10^{-2}
mm Hg, and a rather slow one near equilibrium. It is
shown that the values of the reciprocals of the lapse of
time, necessary to reach a certain degree of decompo-
(chemistry-Physical) U.S. v. 6, no. 7) (over)

Office of Technical Services

Bagdasaryan, Kh.
PHOTOPOLYMERIZATION OF VINYL ACETATE.
 (1961) 7p. 13 refs.
 Order from OTS or SLA \$1.10

61-18171

Trans. of Acad. Physicochemical U. R. S. S. R., 1946,
 v. 19, p. 260-285.

DESCRIPTION. *Acetates. *Vinyl radicals. Photo-
 chemistry. Polymerization.

The photopolymerization of vinyl acetate in mixtures
 with ethyl acetate and benzene has been investigated.
 The rate of photopolymerization of pure vinyl acetate
 and in mixtures with ethyl acetate is proportional to the
 square root of the intensity of incident light. A peculiar
 relationship is established between the ratio V/V_0 and the
 concentration of vinyl acetate. The temperature de-
 pendence of the rate of polymerization corresponds to
 an activation energy of 6.5 kJ/mol. The length of the
 molecular chain is shown to be proportional to the
 (Chemistry--Physical, TT, v. 6, no. 7) (over)

61-18171

1. Bagdasaryan, Kh.

151791

Office of Technical Services

Scholik, A. and Yamsovskii, S.
KINETIC CONDITIONS OF KNOCK AND PREIGNITION IN INTERNAL COMBUSTION ENGINES. (1961)

16p. 23 refs.

Order from OTS or SLA \$1.60

61-18191

Trans. of Acad. Physicochemical U. R. S. S., 1944,
v. 19, p. 329-359

DESCRIPTORS: *Knocking. *Internal combustion engines. *Ignition.

It is shown that the specific distinction between knocking and antiknocking fuels consists in the occurrence in the former of a cool flame and two-stage autoignition region, whereas in the latter only a region of single-stage autoignition of the degenerate explosion type is manifested. (Author)

(Machinery--Engines, TT, v. 6, no. 7)

61-18191

I. Scholik, A.
S. Yamsovskii, S.

Office of Technical Services

7-7-61

Decrease of Detonation Velocity in Pouch Tubes.
by K. Luchelkin, D. P.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol. XX, No. 3, 1965.

Available
in English
at LC

Sci

Aug 60

121,709

On the Mechanism of the Reaction $\text{H}-\text{O}-\text{OH}$ and
 $\text{H}_2-\text{O}-\text{SO}_3\text{H}$, by E. Semenov, 12 pp.

RUSSIAN, FOR, Acta Physicochimica U.S.S.R.,
Vol XX, No 3, 1965.

Available
in English
at LC

Sci

Aug 60

121,699

The Dynamics of the Sorption of Mixtures, by
O. Todes, 28 pp.

RUSSIAN. per, Acta Physicochimica U.R.S.S.
vol XX, No 1, 1957.

Available
in English
at LC

331

Aug 56

121,698

Medvedev, S. and Tseitlin, P.
OXIDATION AND POLYMERIZATION OF STYRENE.
[1961] 15p. 14 refs.
Order from ODS of SEA \$1.60

61-18187

Journal of Asia Physicochemical, 4: 5-5, 1965.
v. 4, p. 5-90

DESCRIPTION: Styrene, Polymerization, Oxidation,
Free radicals

Experiments showed that styrene oxidation comprises two chain processes, a primary and a secondary one, which take place with the intermediate formation of peroxide compounds. The formation of secondary chains is due to the decomposition of oxyperoxides formed from the unstable peroxide of benzaldehyde and styrene. Propagation of both chain processes occurs through free radicals. The ratio of oxidized to polymerized styrene remains constant at different temperatures, with admixture of benzaldehyde and benzoyl (Chemistry-Physical, TT, v. 6, no. 7) (over)

61-18187

I. Medvedev, S.
II. Tseitlin, P.

Office of Technical Services

Shkhter, A., Roginskii, S., and Isaev, B.
ELECTRON-MICROSCOPICAL INVESTIGATION OF
CATALYSTS. I. ASBESTOS AS A CARRIER. [1961]
7p. 6 refs.

Order from OTS or SLA \$1.10

61-18334

Trans. of Acta Physicochimica U.R.S.S., 1963, v. 20,
p. 117-126 (also pub. in Akademiiya Nauk SSSR,
Otdelenie Khimicheskikh Nauk, Izvestiya, 1963,
p. 322-328).

DESCRIPTORS: *Catalysts, *Electron microscopy,
*Asbestos fibers, Fibers.

The electron-microscopical method was applied to a
study of carrier catalysts, in particular to oxide and
metal contacts deposited on asbestos. The effect of
heating on the structure of chrysotile and anthophyllite
asbestos was studied and destruction of fibers, be-
(Chemistry-Physical, ET, v. 7, no. 6) (over)

61-18334

- I. Shkhter, A.
- II. Roginskii, S.
- III. Isaev, B.
- IV. Title: Asbestos ...

Office of Technical Services

Bol'shakov, P.
PARTIAL MOLAL VOLUMES, FUGACITY AND
ACTIVITY COEFFICIENTS OF NITROGEN AND
HYDROGEN IN THEIR MIXTURES AT HIGH PRES-
SURES. [1961] Sp. 8 refs.
Order from OTS or SLA \$1.10

61-18353

Trans. of Acta Physicochimica U.R.S.S. 1965, v. 20,
p. 259-267.

DESCRIPTORS: *Nitrogen, *Hydrogen, Mixtures,
Gases, High pressure research, *Activity coefficient.

The partial molal volumes of hydrogen and nitrogen in
their mixtures at temperatures ranging from zero to
200°C and pressures up to 1000 atm were calculated
from P-V-T data. The rule of Lewis and Randall
was found to hold fairly well for the fugacities of
hydrogen (nitrogen) upwards of 200°C. (Author)
(Chemistry--Physical, TT, v. 7, no. 7)

61-18353

I. Bol'shakov, P.

Office of Technical Services

Detection and Measurement of the Concentration
of Hydrogen Atoms in a Hydrogen Flame, by H.
Kondratiev, V. Kondratiev, 12 pp.

RUSSIAN, per, Acta Physicochimica U.R.S.S.,
Vol XXII, No 1, 1966.

Available
in English
at LC

Sci

Aug 60

121,718

ACTA PHYSICOCHEMICA URSS Vol XXI, No 3 May/Jun 1966

16 pp

"Adsorptive Properties and Structure of Adsorbents.
I. Limiting Adsorption from Solutions and Activated
Charcoal"

A. Kisselev, K. Sucherbakova

Proj 2094

48794

ACTA PHYSICOCHEMICA URSS Vol XXI, No 3 May/Jun 1946

8 pp

"An Electron Microscopic Investigation of Smoke
Deposits"

A. Shekhter, S. Roginsky, S. Sakharova

In English available at
Lib of Congress
Sci Museum Lib 50/1876

Proj 2075

48T95

D-3-117

Hydrogen Atoms in Hydrogen Flames, by H.
Kondratieva, Y. Kondratiev, 4 pp.

RUSSIAN, per, Izv. Akad. Nauk SSSR, Ser. Khim. Nauk,
Vol. 1951, No. 1, 1951.

Available
in English
at LC

Sci

Aug 60

121,765-

Rubinshtein, A. and Pribytkova, N.
THE ROLE OF PRIMARY SUBMICROSCOPIC CRYSTALS IN HETEROGENEOUS CATALYSIS. [1961]
[8]p 23 refs.

Order from OTS or SLA \$1.10

61-20156

Reprint of Acta Physicochimica U. R. S. S. , 1946, v. 21,
p. 79-100.

DESCRIPTORS: Crystals, Catalysis, Deformation,
Lattices, Catalysts, Reaction kinetics, Dissolution,
Chemical equilibrium, Thermochemistry

(Unannounced)

61-20156

I. Rubinshtein, A.
II. Pribytkova, N.

Office of Technical Services

Adirovich, E.
MECHANISM OF THE INFLUENCE OF SULFUR
COMPOUNDS ON THE KNOCK VALUE OF
ETHYLATED GASOLINE. [1961] 2p. 12 refs.
Order from OTS or SLA \$1.10 61-20157

Reprint of Acta Physicochimica (J. R. S. S.), 1946,
v. 21, p. 283-288.

DESCRIPTORS: Gasolins, Knocking, Sulfur com-
pounds, Chemical reactions.

(Unannounced)

61-20157

I. Adinovich, E.

Office of Technical Services

Kravchenko, V.
THE EUTECTICS AND SOLID SOLUTIONS OF
PARAFFINS. [1961] [4]p. 19 refs.
Order from OTS or SLA \$1.10

61-20158

Reprint from Acta Physicochimica U. R. S. S. 1946,
v. 21, p. 335-344.

DESCRIPTORS: Solutions, Eutectics, Molecular structure,
Petroleum, Chemical analysis, Methanes

(Unannounced)

61-20158

1. Kravchenko, V.

Office of Technical Services

Acta Physicochem. xxi, # 4, pp 748-63 (1963)
(In English)

Study of Magnesium-Cadmium Alloys in
Region of compound Mg_3Cd .

M. Agnew,
D. Agnew

62 Dupont # 1 —
Copy in file

52 T 70.

ACTA PHYSICOCHEMICA URSS: Vol XXII, No 1

Jan 1947

10 pp

"The Melting Point of Organic Crystals"

V. Kravchenko

In English
at Lib of Congress

26775

ACTA PHYSICOCHEMICA USSR: Vol XXII, No 1

Jan 1947

25 pp

"A Theory of the Oxidation of Alloys, Part I"

A. Smirnov

Available at Lib of Congress
in English

26140

ACTA PHYSICOCHEMICA URSS Vol XIII, No 1

Jan 1947

20 pp

"Statistics of the Surface of Active Charcoal Deduced
from the Kinetics of Activated Adsorption"

Keyer, S. Rozhinskiy

Lib of Congress
in English

26155

ACTA PHYSICOCHEMICA URSS Vol XXII, No 1

Jan 1947

11 pp

"The Effect of Surface-Active Substances on the
Evaporation of Water Drops in the Spheroidal State,
Part II"

N. Pleteneva, P. Rehinder

In English
Available Lib of Congress

26756

ACTA PHYSICOCHEMICA URSS Vol VIII, No 1

Jan 1947

16 pp

"The Role of the Adsorption of Hydroxyl in the Chain
Mechanism of Hydrogen Combustion"

V. Voevodskiy

In English

Avail in Lib of Congress

26158

ACTA PHYSICOCHEMICA URSS Vol XXII, No 1

Jan 1967

161pp

"On Anomalous Phase Transitions (Behavior of Substances
Near their Critical Points)"

I. Krichevskiy, A. Rosen

In English
Avail in Lib of Congress

26759

ACTA PHYSICOCHEMICA URSS: Vol XIII, No 1

Jan 1947

16 pp

"Absorption of Gas from an Air Current by Granular Material, Part II"

A. Tikhonov, A. Schuchowitsky

In English

Avail Lib of Congress

26760

ACTA PHYSICOCHEMICA URSS Vol XXII, No 1

Jan 1947

16 pp

"Solvation of Nonelectrolytes and the Compressibility
of their Solutions"

A. Passynskiy

In English
Avail Lib of Congress

26161

ACTA PHYSIOCOCHIMICA URSS Vol XXII, No 1

Jan 1947

20 pp

"Kinetics of Hydrogenation and of Related Reactions:
Part II, Kinetics of Hydrogenation with Nickel, Platinum,
and Copper"

A. Balandin

Available at Lib of Congress

Froj 1563

D-3-89

In English

26r2

ACTA PHYSICOCHEMICA Vol XXII, No 1

Jan 1947

20 pp

"Kinetics of Hydrogenation and of Related Reactions:
Part I, The Mechanism of Hydrogenation, Dehydrogenation,
and Deuterium Exchange"

Q. Baladin

Available at Lib of Congress
In English

26T3

ACTA PHYSICOCHEMICA URSS Vol XXII, No 1

Jan 1947

17 pp

"The Formation of Nitric Oxide During Combustion and Explosions: Part II, Influence of Vessel Size and Combustion Rate"

D. Frank-Kamenetskiy

Available at Lib of Congress
in English

2674

ACTA PHYSICOCHEMICA Vol XLII, No 2

Feb 1947

14 pp

"A Theory of the Formation of Oxide Films on Alloys, II"

A. Onlov, A. Smirnov

in English at 1/C

9T12

ACTA PHYSICOCHEMICA VOL XXII, No 2

Feb 1947

26 pp

"Photoconductivity of Thin Layers of Dye in the
Solid State"

A. Vartanian

in English at L/C

9T13

ACTA PHYSICOCHEMICA BOL XXII, No 2 Feb 1947

12 pp

"The Influence of Adsorption on the Surface Motion
of Mercury Drops"

T. Kryukova

in English at L/C

9T14

ACTA PHYSICOCHEMICA VOL XXII, No 2

Feb 1947

18 pp

"On Heterogeneous Ionic Catalysis"

V. Goldanskiy, N. Chirkov

In English at L/C

9T15

ACTA PHYSICOCHEMICA

VOL XXII, No 2

Feb 1967

6 pp

"On the Detonation Mechanism of Liquid Explosives:
An Estimate of the Heating of Liquid Nitric Esters in
a Shock Wave"

S. Ritner

in English at L/C

9T16

ACTA PHYSICOCHEMICA VOL XXII, No 2 Feb 1947

18 pp

"Kinetics of Hydrogenation and of Related Reactions:
III, Selective Hydrogenation"

A. Balandin

in English at L/C

9T17

ACTA PHYSICOCHEMICA VOL XXII, No 2

Feb 1947

7 pp

"On the Laws Governing the Separation Process of
Solids of Different Floatability, and the Content of
the Floated Solid in the Concentrate and its Recovery"

2. Volkova

in English at L/C

9T18

ACTA PHYSICOCHEMICA VOL XXII, No 2

Feb 1947

12 pp

"Certain Properties of Real Crystals of Vanadium
Nitride"

V. Epelbaum

in English at l/c

9719

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ACTA PHYSICOCHEMICA VOL XXII, No 2 Feb 1947

10 pp

"The Crystal Chemistry of Aromatic Compounds: III,
The Packing Coefficient in Organic Crystals"

A. Kitaigorodski

in English at L/C

9T20

ACTA PHYSICOCHEMICA

VOL XXII, No 2

Feb 1947

6 pp

"The Symmetry of the Molecule and the Selection Rules
for the Electronic Vibration Spectrum of Allene"

M. Kovner

in English at L/C

9T21

ACTA PHYSICOCHEMICA VOL XXII, No 2 Feb 1947

14 pp

"Characteristics of the Fluidity-Temperature Relation
For Liquids by the Blowing-Off Method"

M. Kussakov, E. Razumovskaya

In English at L/C

9T22

ACTA PHYSICOCHEMICA VOL XXII, No 2

Feb 1947

10 pp

"The Temperature Dependence of the Viscosity of Molten Silicate"

A. Leontieva

in English at L/C

9T23

ACTA PHYSICOCHEMICA. VOL XXII, No 2

Feb 1947

16 p.

"The Compressibility of Colloidal Solutions and the
Solubility of Colloids"

A. Pasynsky

in English at L/C

9T21

ACTA PHYSICOCHIMICA VOL XXII, No 2 Feb 1947

14 pp

"A Theory of Vibrational Spectra of Polyatomic
Molecules, V"

B. Stepanov

in English at L/C

9T25

ACTA PHYSICOCHEMICA URSS Vol XIII, No 1

Jan 1949

14 pp

"An Investigation of the Exchange Adsorption of Electrolytes on Fatty Acid Crystals by the Conduction Method, Part III"

A. Trapeznikov, M. Lipets

In English

Avail in Lib of Congress

26157

The Development of Some Piroplasmidae in Vertebrate

Hosts, by H. V. Krylov.

RUSSIAN, per, Acta Protozoologica, Vol 2, 1964, pp 307-320.

HTC-71-1455-060

Nov 71

LSD₂₅ in Psychotherapy: Experimental Psychotherapy,
by Pérez Morales, Francisco.
RUSSIAN, per, Acta Psiquiatr Psicol Argent, Vol. 9,
pp. 136-143, 1963.
HEW 3-4-65

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Mar 65

275,767

Metabolism of Denervated Insect Muscle, by I.
Novotny.

RUSSIAN, per, Acta Soc Zoolog Bohemoslovenicae,
Vol XXII, No 3, 1958, pp 232-237.

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Sci - Biol

Mar 62

186³, 43.3