

Method of Accounting For the Self-cooling Effect of Rotating
Machine Rotors, by I.F. Filippov.
RUSSIAN, per, Izv. Akad. Nauk SSSR, No 9, 1964, pp 53-59.
(NLL/9022.03 1965 (3659))

Sci -
Sep 67

540,024

On the Determination of a Differential Equation
by Two of its Spectra, by B. M. Levitan.
RUSSIAN, per, Izvestiya Akad. Nauk SSSR, Vol 28
1964, pp 63-78.
*NASA TT F 13,297

sci/math
oct 70

Causes for the Broadening of Hydrogen Lines
in the Solar Spectrum, by A. B. Severny.
RUSSIAN, per, Izv AN SSSR, Astrofiz Obser,
Vol 16, 1956, pp 54-66.
CIA X-7018

May 69

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Sharp-Surface Symmetrical Shapes of Nuclear
Equilibrium, by V. M. Strutinskiy, N. Ya.
Lyashchenko, et al.

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Lenina Institut Atomnoy Energii, 1962, 40 pp.

AEC-Tr-5493

Sci - Nucl Sci

Apr 63

226,776

61-16821

Ravich, M. B. and Zakharov, B. A.
CATALYTIC COMBUSTION ON REFRACTORY SUR-
FACES. [1961] 5p.
Order from OTS or SLA \$1.10 61-16821

I. Ravich, M. B.
II. Zakharov, B. A.

Condensed trans. of [Akademiya Nauk SSSR].
Energeticheskiy Institut. Izvestiya, 1940, v. 9,
p. 23-29.

DESCRIPTORS: *Refractory materials, Quartz,
Iron compounds, Nickel compounds, Chromium
compounds, Oxides, Combustion, Catalysis.

This work established that quartz packing accelerates
the combustion, especially at temperatures below
700° and that fire clay grog is more active than
quartz at temperatures higher than 700°, but at lower
temperatures the relationship is reversed. Oxides of
nickel and iron exert a higher promoting effect than
vanadium oxides and permit a lowering of the
(Chemistry--Physical, TT, v. 8, no. 12) (over)

Office of Technical Services

Pressure and Erosion in Region of
Tear-Off Cavitation of a Guideline Profile,
by K. K. Shal'nev,
RUSSIAN, per, Iz An SSSR, Energetika i Transport,
No 5, 1954, pp 111-120.
*FTD-MT-65-557

Sci-Energ
Nov 65

Thickness of the Turbulent Mixing Zone on
the Boundary of Two Streams of Gases of
Different Velocity and Density, by
O. V. Yakovlevskiy. 6 pp.

RUSSIAN, per, Akademiya Nauk SSSR, Izvestiya.
Energetika i Transport, No 10, 1958,
pp 153-155. 9700068
FTD-TT-65-1928

Sci/Physics
May 66

299,476
~~299,531~~

Approximation Theory of Heat Transfer in Developed
Bubble Boiling, by D. A. Labuntsov, 20 pp.
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pp 58-71. 4220563
AEC-Tr-6286

Sci-Phys
Mar 64

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Self-Centering and Equilibrium of a High-Speed Compressor, by A. S. Kol'zon, Z. V. Troitskaya, 8 p.
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Otd. Tekhn. Nauk, Energetika i Transport,
No 3, 1963, pp 51-57.
US PSTC SI-5-75-424

Sci-Engr
Feb 66

294,390

Agency: U.S. Army Terrestrial Sciences Center R-10204-D
P.O. no. 69-1-8 17 March 69

Title: Massovitsen pri kondensatsii para iz dvizh-
ushcheisia paragazovoi smesi, --by--iz--by--vizely

Authors: A. M. Vixely & I. L. Ostinski

Source: Izvestia Akad. Nauk SSSR, Energetika i Transport,
no. 4, 1963

Language: Russian

8pp

Special instructions: Please translate & type one copy.

SEE TITLE OVER

Monte-Carlo Method in the Analysis of the
Reliability of Electric Power Plants, by
U. B. Guk, 9 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Energetika i
Transport, No 4, 1963, pp 443-447.

*CIA/FDD XX-1602
NO FOREIGN DISSEM

Sci
Oct 64
USIB Internal Use Only

268,095

Development and Investigation of Air Cooling
Systems of Gas Turbine Elements, by I. T. Shvets,
E. P. Dyban, 19 pp.

RUSSIAN, per, Izv Ak Nauk SSSR, Energetika i $\bar{\pi}$
Transport, No 6, 1963, pp 747-758.

CIA/FDD XX-1605
NO FOREIGN DISSEM

Sci - Engr
Oct 64
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268,338

Vortex Effects in a Turbine Stage, by
M. Ye. Deych and Ye. Ye. Likhersak, 12 pp.
RUSSIAN, per. AN SSSR. Izvestiya. Energetika
i Transport, No 1, 1964, pp 109-115. P100088668-V
FTD-MT-67-47

Sci-Prop & Fuels
May 68

356.252

The Solubility of Calcium Sulphate in high
Temperature and Supercritical Steam, by
O. I. Martynova, et al.
RUSSIAN, per, Izvestiya Akademii Nauk SSSR,
Energetika i Transport, No 3, 1965,
pp 132-136. 1964
SAEC 2368

AERE-L 1058 P911027867

Sci/Physics
May 66

Magnetohydrodynamic Phenomena in a Layer of
Conductive Liquid Between Rotor and Stator of an
Asynchronous Motor, by G. S. Tamoyan, 13 pp.
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Transport, No 3, 1964, pp 370-377. 9696384
FTD-TT-65-173

Sci - Elec
Apr 65

277,830

On the Substantiation of a Method for
the Calculation of a Screened Asynchronous
Electric Motor With Conductive Liquid
in Gap, by A. V. Ivanov-Smolenskiy,
G. S. Tamoyan, 14 pp.
RUSSIAN, per, Is Ak Nauk SSSR, Energetika
i Transport, No 4, 1964, pp 466-473.
9696386
FTD-TT-65-174

Sci - Elec
Apr 65

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The Method of Optimization of the Development
of Power Systems with the Use of Mathematical
Models, by L. A. Melent'yev and Yu. P. Syrov,
27 pp.

RUSSIAN, per, AN SSSR. Izvestiya. Energetika i
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F100107668-V

FTD-MT-67-48

Sci-Electronics & Elec Engr
July 68

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Effect of Thermal Resistance of Coatings on the
Thermal Radiation Characteristics of Star Like
Radiators, by Yu. A. Vasanov. 12 pp.
RUSSIAN, per, Izvestiya Ak Nauk SSSR. Energetika
i Transport, No 6, 1964, pp 743-749. P100027666
FTD-TT-65-1389

Mech, Indust, Civil &
Marine Engr.
Sep 66

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Oscillations of a Weakly Heterogeneous Plasma,
by V. P. Silin, 20 pp.

RUSSIAN, per, Izvest Akad Nauk BSSR Institut Fiz
Ineni P. N. Lebedeva, 1962, 9207676.

AEC-UCRL-Tr-945(L)

Sci - Phys

Jun 63

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Theory of Transfer Processes in a Plasma Across
a Magnetic Field, by V. P. Silin.

RUSSIAN, per, Izvest Ak Nauk SSSR, Instit Fiz
imeni P. N. Lebedeva, 1962, 13 pp.

AEC/UCRL-TR-869(L)

Sci - Phys

Apr 63

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The Productivity of the Barents Sea Littoral Zone, by
M. M. Kamshilov.
RUSSIAN, per, Izvestiya Karel'dkogo i Kol'skogo Filialov
AN SSSR, No 1, 1957, pp 84-89.
*Dept of Navy NOO Trans 547

July 71

Spectrophotometry of Lunar Formations, by
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RUSSIAN, bk, Akademiya Nauk SSSR Komissiya Po
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RSIC-797

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Aug 68

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A Photoelectric Method of Measuring the
Strength and Direction of A Solar
Magnetic Field, by V. E. Stepanov,
A. B. Severnyi, 41p.
RUSSIAN, per, Izvestiya Akademiya
Nauk SSSR. Krymskaya Astrofizicheskaya
Observatoriya, Vol 28, No 1 1962, pp 166-193.
OTB TT-65-60332

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Sci
Jul 67

Observations of Thermal Radiation of the Moon,
by N. P. Yesaulov, N. S. Nikulin, 11 pp.
RUSSIAN, per, AN SSSR. Krymskaya Astrofizicheskaya
Observatoriya. Izvestiya, Vol 30, 1963, pp 273-
283. F100094168-V
FTD-MT-67-25

Sci-Phys
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On the Nightglow of Venus, by N. A. Kozyrev.
RUSSIAN, per Izvestiya, Akademiya Nauk SSSR.
Krymskaya Astrofizicheskaya Observatoriya.
Vol 6, 1963, pp 431-6.
SLA TT-66-11072

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Jul 67

The Theory of Ship Resistance During Movement in
Seas, by M. D. Khaskind, 17 pp.

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Mekhanika i Mashinostroyeniye, No 2, 1959,
pp 46-56.

Dept of Navy NIC Trans 3080

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Aug 70

Experimental Investigation of Anisotropy of
Fiberglass-Reinforced Plastics, by
Ya. S. Sidorin. 10 pp.
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1964, pp 122-126.
AIR/FTD/HT-23-208-70

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Linear Theory of Unsteady Gas Motion Under the
Action of Nonpotential External Forces, by
V. E. Baskin.

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Mekhanika Zhidkosti i Gaza, Jul-Aug, pp 58-65.

*NASA TT F 13,052

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may 70

A Method of Formulating the Boundary Conditions
in Problems of Viscous Fluid Flow, by
T. S. Varzhanskaya, 5 pp.
RUSSIAN, per, Izv Akad Nauk SSSR, Mekh Zhid i Gaza,
No 3, 1963, pp 142-144.
AEC/SC-70-4003-70
TR

Sci/Phy
Mar 70

402,583

1963-1964
IZVESTIYA AN SSSR, METALLURGIYA I
GORNOE DELO
(Russian Metallurgy and Mining)
Sequel to "Izvestiya AN SSSR OTN,
Metallurgiya i Toplivo"
Translation begins with 1963 up to
and including 1964
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From 1965 see: "IZVESTIYA AN SSSR, METALLY"

Russ

Reduction of Melten Iron Oxide by Carbon,
by S. V. Shavrin,
RUSSIAN, per. Izv. Akad. Nauk SSSR Met. i gorn
delo, 1964, pp 26-31.
BISI 9145

Jul 71

Structure and Thermophysical Properties of Surface
Crust Formed on Industrial Aluminum Reduction Cells,
by A. A. Vol'berg.
RUSSIAN, per, Izv Ak Nauk SSSR, Met i Gorn Belo,
No 5, 1964, pp 45-56.
ATS RJ-5077

Sci-Mat
July 69

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Spectral Emissivity of some Technical Alloys
in the Infrared Spectrum Range,
by V. V. Lebedeva.
RUSSIAN, per, Iz Ak Nauk SSSR, Metalli Gornoyo
Delo, No 4, 1964, pp 143-146.
*FTD-TT-65-1796

Sci - M/M
Nov 65

Self-diffusion of Nb in Single Crystal and
Liquid Specimens, by V. D. Lyubimov, et al.
RUSSIAN, per, Izvest. Akad. Nauk SSSR Met.
i. Goroe Delo, no. 5, 1964, pp. 137-141.
*CFSTI TT 70-57044

Sci/phys
Feb 70

SPECIALIZATION IN THE MACHINE BUILDING INDUSTRY
IN MOLDAVIA, BY S. I. KIRKA, 12 PP.

RUSSIAN, PER, IZ AK NAUK MOLDAVSKOY SSR, NO 2,
1962, PP 13-22.

JPRS 18803

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APR 63

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On the Problem of Parasite Fauna of the
Fishes of the Lower Dnestr, by R. P.
Shumilo.

RUSSIAN, per, Izvestiya Akad Nauk SSSR
Moldavsk. Filiala, Vol 8, 1958, pp 31-39.

NLL RTS 2843

U. 53

Sci-DQM
Sept 66

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Electrophysiological Characteristics
of Plant Stimuli, by I. I. Gumar, A.
M. Sinyukhin, 21p.

RUSSIAN, par, Izvestiya, Moskovskaya
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No 4(29), pp 7-22.

ERC C-6133

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Jul 67

Research in the Field of Refractory and
Hard Compounds, by G. A. Meyerson.
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Materialy, Vol I, No I, pp 16-28, 1964.
9230474
AEC-Tr-6616

Sci-M.M
Dec 65

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Dependence of the Frequency of Minute Chromosome
Rearrangements in Drosophila melanogaster Upon X-Ray
Dosage, by M. L. Bel'govskiy, 14 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Biol Nauk, 1939,
pp 159-170. 9089772

OTS 61-11434
FL-480

Sci - Biol

207,542

Aug 62

DWT 523

A Cytological Study of the Breaks at the Waite Locus
of the X-Chromosome in Drosophila Melanogaster, by
A. A. Prokof'yeva-Bel'govskaya, 13 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Biol Nauk, No 2,
1939, pp 215-227. 9089771

OTS 61-11483
PL-480

Sci - Biol

207, 535

Aug 62

PST 526

Genetic study of the "simple break" in the
Third Region of the Scute⁶ chromosome of Drosophila
Melanogaster, by A. A. Prokof'yevna-Bel'govskaya, 11 pp

RUBINAK, per, Iz Ak Nauk SSSR, Otdel Biol Nauk, 1969,
pp 349-361. 9089775

OTS 61-11482
PL-480

Sci - Biol

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REF 527

Dark Regions in the Inner Part of the X-Chromosome of
Trypsin Melanogaster, by A. A. Dichtof'yeva-
Bel'gorokaya, 8 pp.

NUMSHAN, per, Iz Ak Nauk SSSR, Otdel. Biolog Nauk,
1938, pp 362-370. ~~9089776~~

OES 61-11481
PL-480

Gen - Biol.

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Aug 62

BSF 528

On the Possibility of Induction of Cartilage
Formation in Vitro, by L. F. Berezkina, 12 pp.

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Vol II, 1943, pp 67-73. CIA 9012917

NIH Tr 10-27
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Sci - Medicine
Oct 57

The Process of Decomposition of Macrophytes
of Freshwater Lakes and the Role of Their
Residues in the Formation of Lacustrine
Coze Deposits, by M. A. Messineva and
A. I. Gorbunova,
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Otdel.
biol. Nauk, Vol V, 1946, pp 565-579.
ALL RTS 3330
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Sci-Bar Sci & Ocean
Apr 67

324,030

Erosion and Deposition on Gas Turbine Blades
Working in a Gas Containing Small Particles of
Suspended Matter, by S. Sh. Rozenberg.

RUSSIAN, per, Iz Ak Nauk SSSR Otdel Energi^s i
i Avtomat, No 1, 1962, pp 111-115.

NLL M 3914

Sci - Fuels & Prop
Mar 63

225,427

Special Geodetic Assignments, III. Magnetic and
Astronomical Determinations Along the ~~Siberian~~
Connecting System and Along the Siberian Railroad
From Chelyabinsk to Krasnoyarsk, 114 pp.

RUSSIAN, per, Ak Nauk SSSR, Otdel Fiz-Matemat. Nauk,
Zapiski, Ser 8, Vol XVII, No 7, 1906, pp 1-104.

AID SIR-3281

Sci - Phys
Aug 60

121,903

Special Geodetic Assignment: Liv. General Review
of the Activities of the Kuznetsov Brothers' Ex-
pedition to the Polar Urals in the Summer of 1909,
17 pp.

7 In
RUSSIAN, per, Ak Nauk SSSR, Otdel fiz matemat nauk,
Vol XXVIII, No 1, 1911.

Air Info Div SIR-3069

USSR
Geogr
Oct 59

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Special Geodetic Assignment: I.VI. Basic
Astronomical Points of the Russian Polar
Expedition, 29 pp.

I-
RUSSIAN, per, Ak Nauk SSSR, Otdel. Fiz. Matem.
nauk. Zapiski, Vol XVI, No 2, 1911, pp 1-20.
Seriya 3, item

Air Info Div SIR-3068

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Sci - Geofiz
Oct 59

Special Geodetic Assignment: IV. Astronomical
Determinations by the Polar Urals Expedition in
the Summer of 1909, 40 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Fiz Mat Nauk,
Zapiski, Vol XXVIII, No 2, Ser 8, 1911, pp 1-17.

AID/SIR 3079

Sci - Astronomy
Nov 59

10/199

The Circulation of a Turbulent Wall Jet Along
a Solid Wall, by L. S. Abramson and Yu. A. Skovo-
rodnikov.

RUSSIAN, per, Izvest. Akad. Nauk SSSR Otd. Tekh.
Nauk. Mekh. i Mash., No 3, 1962, pp 176-177.

NIL RTS 3723

Sci-Physics
Nov 67

345,340

Iz AN, OKN 1-49 Page 110⁻¹⁴

Catalytic Condensation of
Carbon Monoxide with Olefins I.

Hydrocondensation of Carbon Monoxide
with Ethylene. Copy in Files

See "NT" 63 File

Phoretic Phenomena at the Interface of Liquid Phases, by
L. I. Beliaev.

Ostf. Khim. Nauk
RUSSIAN, per, ~~Izvestia Akademii Nauk SSSR, Seriya~~
~~Gizicheskaya~~, No 4, 1937, pp 1433-1450. CIA 9017556

NIH 5-18

Sci - Chemistry
Apr 58

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The Polytherm of a Reciprocal System of Ammonium
and Potassium Chlorides and Nitrates, by A. G. Berg-
man, 16 pp.

R. Otdel Khim Nauk
RUSSIAN, per, Iz Ak Nauk SSSR, Ser. Khim, No 1, 1933,
pp 203-216.

SIA R-3301

Sci

Aug 59

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Solubility Polymers of Secondary and Tertiary
Potassium Orthophosphate in Water, by M. I. Ravich,
11 pr.

Otdel Khim Nauk

RUSSIAN, per, Iz Ak Nauk SSSR, ~~Sci Khim~~, No 1, 1938,
pp 137-146.

SLA R-3529

Sci

Aug 59

93,549

62-16405

Vuks, M. F. and Ioffe, V. A.
DIFFUSION SPECTRA OF TWO-COMPONENT SIL-
ICATE GLASSES (Spektry Rasseyaniya
Dvukhkomentnykh Silikatnykh Stekol). [1962]
[19]p. (foreign text included) 5 refs.
Order from OTS or SLA \$1.60 62-16405

Trans. of Akademiya Nauk SSSR. [Otdelenie
Tekhnicheskikh Nauk]. Izvestiya, 1938, no. 3,
p. 61-69.

DESCRIPTORS: *Spectrographic analysis, *Glass,
*Silicates, Ramon spectroscopy, Sodium, Lead.

(Materials--Ceramics, TT, v. 8, no. 11)

I. Vuks, M. F.
II. Ioffe, V. A.

Office of Technical Services

Troitskiy, M. V.
BYPRODUCTS OF ALKALINE FUSION OF SODIUM
BENZENESULFONATE TO PHENOL, AND THEIR
ISOLATION AND UTILIZATION. [1961] Sp.
Order from ATS \$15.00
ATS-75N49R

Trans. of Akad[emiya] Nauk SSSR. Otdel[eniye]
Khim[icheskikh] Nauk. Izvest[iya] 1940, no. 1,
p. 127-134.

- I. Sulfonates--Chemical reactions
- 2. Phenol--Chemical reactions
- I. Troitskiy, M. V.
- II. ATS-75N49R
- III. Associated Technical Services, Inc., East Orange, N. J.

1011 11

61-32119

Office of Technical Services

(Chemistry--Organic, TT, v. 5, no. 11)

61-16861

Rubinshtein, A. M.
DEHYDROGENATION ON NICKEL CATALYSTS OF
DIFFERENT EXTENT OF DISPERSION. [1961] 7p.

I. Rubinshtein, A. M.

17 refs.

Order from OTS or SLA \$1.10

61-16861

Trans. of Akademiya Nauk SSSR. Otdelenie Khimii-
chechikh Nauk (Izvestiya), 1940, no. 1, p. 135-142.

DESCRIPTORS: *Dehydrogenation, Catalysis, *Nickel
catalysts, Cyclohexanes.

The dependence of the activity of nickel-alumina cata-
lysts upon the dispersion of nickel has been investigated
for the case of dehydrogenation of aliphatic and naph-
thenic compounds. The study was carried out with seven
preparations of the catalyst, in which the dispersion of
nickel varied from 49 to 122 Å. Activity-dispersion
isotherms were constructed for dehydrogenation of cy-
clohexane and formic acid. The dependence of the
(Chemistry--Organic, TT, v. 6, no. 6) (over)

176588

Office of Technical Services

Rubinshtein, A. M.
CATALYTIC HYDROGENATION IN THE VAPOR
PHASE AS AFFECTED BY THE DISPERSION OF THE
CATALYST. [1961] 6p. 30 refs.
Order from OTS or SLA \$1.10

61-16863

L. Rubinshtein, A. M.

Trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk, Izvestiya, 1940, no. 1,
p. 144-150.

176590

DESCRIPTORS: *Benzenes, *Carbon compounds,
*Monoxides, *Hydrogenation, *Alumina-nickel
catalysts, Chemical reactions, Catalysts, Vapors.

The reactions of hydrogenation of benzene and of carbon
monoxide to methane in the presence of nickel-alumina
catalysts of different extents of dispersion were
investigated. It was shown that the activity of the
catalysts depends upon the dispersion of the active
(Chemistry--Organic, TT, v. 6, no. 6) (over)

Office of Technical Services

61-16862

Eidus, Ya. T. and Nechaeva, N. N.
EFFECT OF SOME ELECTRICAL FACTORS ON THE
CHEMICAL REACTIONS OF ETHYLENE IN HIGH
FREQUENCY CORONA DISCHARGE. [1961] 5p. 22 refs.
Order from OTS or SLA \$1.10 61-16862

I. Eidus, Ya. T.
II. Nechaeva, N. N.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1940, no. 1, p. 153-160.

DESCRIPTORS: *Ethylenes, Chemical reactions, High
frequency, Electrical corona, Electrical properties.

176589

Experiments are reported on the effect of the wattage
and frequency of high frequency corona discharge with
damped oscillations on chemical conversions of ethyl-
ene and particularly on its dehydrogenation to acety-
lene. The wave length within 190 to 500 meters is prac-
tically without any effect. The dependence of the yields
of reaction products (acetylene, hydrogen, paraffins) :
upon the power within 0.3 to 30 watts is given. (Author)
(Chemistry--Physical, TT, v. 6, no. 6)

Office of Technical Services

61-18024

Favorskil, A. E.
RESEARCH ON ACETYLENE DERIVATIVES. [1961]
7p. 2 refs.
Order from OTS or SLA \$1.10

61-18024

I. Favorskil, A. E.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Vestiya 1940, p. 181-188.

DESCRIPTORS: *Acetylene derivatives, Synthesis, Production, Chemical industry, USSR, Rubber, Isoprene.

185420

A general review is given of research on acetylene derivatives based on observations originally made as early as 1888 and 1900. Acetylene alcohols are formed by condensation of acetylene or vinylacetylene and ketones in the presence of anhydrous potassium hydroxide. Their polymers are good film-forming materials. Electrolytic hydrogenation of acetylene alcohols in soda solution gives olefinic alcohols which can be dehydrated (Engineering--Chemical, TT, v. 6, no. 9) (over)

Office of Technical Services

MAKAROV, S. Z., and SHUL'GINA, M. P.
R-2858. The solubility diagram of potassium carbonate-
sodium carbonate-water and its application to the se-
paration of potassium and sodium carbonates. Doklady
Akad. Nauk SSSR, Ser. Khim., p. 511-28, 1940. (21p.)

0184

BOCHKAREV, P. F., and BERGMAN, A. G.
R-2940. Physicochemical investigation of the aqueous
recipocal system of potassium ammonium nitrates and
monophosphates III. Polytherm of the reciprocal system
of potassium and ammonium nitrates and monophosphates.
Doklady Akad. Nauk SSSR, Ser. Khim., p. 379-95, 1948.
(26p.)

BULLETIN OF THE ACADEMY OF SCIENCES OF
THE USSR. DIV. OF CHEMICAL SCIENCE. 1940,
NO. 4: [TABLE OF CONTENTS] AND SELECTED
ABSTRACTS. [1961] 4p.

Order from OTS or SLA \$1.10

61-20798

Abstract trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. (Izvestiya) 1940, no. 4,
p. 493-508, 552-558, 588-589, 592-595.

DESCRIPTORS: *Chemistry, Abstracting, Periodicals,
Glow discharges, Chemical reactions, Reaction ki-
netics, Hydrogen, Carbon compounds, Monoxides,
Sulfides, Oxidation, Spectrographic analysis, Ethynyl
radicals, *Acetylene derivatives, Ketones, Alkyl rad-
icals, Vinyl radicals, Synthesis, Polymerization, Cat-
alysts, Catalysis, High pressure research, Confer-
ences.

(Chemistry, TT, v. 7, no. 7)

(over)

61-20798

- I. Title: Synthesis ...
- II. Title: Vinyl ...

Office of Technical Services

61-20797

BULLETIN OF THE ACADEMY OF SCIENCES OF
THE USSR. DIV. OF CHEMICAL SCIENCE, 1940,
NO. 5: [TABLE OF CONTENTS] AND SELECTED
ABSTRACTS. [1961] 9p. 9 refs.

Order from OTS or SLA \$1.10

61-20797

Abstract trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya 1940, no. 5,
p. 601-615, 617-626, 681-689.

DESCRIPTORS: *Chemistry, Abstracting, Periodicals,
*Exchange reactions, Reaction kinetics, Hydrogen
compounds, Peroxides, Decomposition, Alloys, Cat-
alysts, Catalysis, Rubber.

Contents:

Kinetic basis of the method of isotope indicators.

I. Kinetics of exchange reactions, by S. Z. Roginskii
(Chemistry, TT, v. 7, no. 7) (over)

1. Title: Hydropolymerization
- I. Title: Kinetics ...
- II. Title: Catalytic ...

Office of Technical Services

VOLFKOVICH, S. I., BELOPOLSKII, A.P., and
LOGINOVA, A.
R-2949. The physicochemical and technological
analysis of the process of decomposition of phosphates
by means of nitric acid, with production of fertilizers.
Doklady Akad. Nauk SSSR, Ser. Khim., 1940. p.705-
24, (34p.)

Part
Physicochemical Analysis of Fused Salt Systems, I.
Electrical Conductivity of Binary Systems of Nitrates,
Chlorides and Iodides of Sodium, Potassium, Thallium,
Mercury and Silver, by A. G. Bergman, I. M. Chagin,
22 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 5,
1940, pp 727-738.

Sci Trans Center RT-958
OTS TT-63-20771 (27pp)
14,058

Scientific - Chemistry
CTS/DIEK

TT-63-20772

Barzakovski, V. P.
THE DENSITY, VISCOSITY, ELECTRICAL CON-
DUCTIVITY, AND SURFACE TENSION OF SOME
BINARY SALT SYSTEMS IN THE FUSED STATE
[Plotnost', Vyazkost', Elektroprovodnost' i Poverk-
hnoetnoe Naryazhenie Nekotorykh Binarnykh Solyanykh
Sistem v Rasplavlennom Sostoyanii]. [1963] [13p]

I. Barzakovski, V. P.
II. RT-957

9refs
Order from OTS, SLA, or ETC \$1.60 TT-63-20772

Trans. of Akademiya Nauk SSSR, (Otdelenie Khimi-
cheskikh Nauk), Izvestiya, 1940, no. 5, p. 825-831.
(Abstract available)

Another trans. is available from SLA as RT-957, 11p.

DESCRIPTORS: *Electrochemistry, *Fused materials,
*Salts, *Potassium compounds, *Sodium compounds,
*Calcium compounds, *Barium compounds, *Lead
compounds, *Chlorides, Density, Viscosity, Elec-
trical conductance, Surface tension,
(Chemistry--Physical, TT, v. 11, no. 4) (over)

Office of Technical Services

Bazhulin, P. A., Plate, A. F. and others.
OPTICAL METHOD OF INVESTIGATION OF HYDROCARBONS. II. SPECTRA OF COMBINATION SCATTERING OF PARAFFINS. [1961] [5]p. 6 refs.
Order from OTS or SLA \$1.10 61-16875

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk, Izvestiya, 1961, no. 1, p. 15-26.

DESCRIPTORS: *Hydrocarbons, Raman spectroscopy, Optical analysis, Gasoline, Octanes, Fuels, Chemical industry.

An investigation of the Raman spectra of 19 paraffins is reported using a simplified method of determination of positions of the spectral lines. These hydrocarbons include normal pentane, isopentane, normal hexane, 2-methylpentane, 3-methylpentane, normal heptane, 2-methylheptane, 3-methylheptane, 2,2-dimethylpentane, methylcyclohexane, normal octane, 2-methylheptane, 3-methylheptane, 4-methylheptane, 3,3-dimethyl-

61-16875
I. Bazhulin, P. A.
II. Plate, A. F.
III. Title: Spectra...

151732

Office of Technical Services

61-16879

Eidus, Ya. T., Kazanski, B. A., and Zelinski, N. D.
EFFECT OF THE CARRIER FOR THE NI-NiO-
Al₂O₃ CATALYST ON THE SYNTHESIS OF LIQUID
HYDROCARBONS UNDER ATMOSPHERIC PRESSURE.
[1961] 5p. 8 refs.
Order from OIS or SLA \$1.10 61-16879

I. Eidus, Ya. T.
II. Kazanski, B. A.
III. Zelinski, N. D.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimiches-
kikh Nauk. Izvestiya, 1941, no. 1, p. 27-33.

DESCRIPTORS: *Catalysts, Synthesis, *Hydrocarbons,
*Gasoline, *Nickel catalysts, Carbon compounds,
Monoxides, Hydrogen, Chemical reactions

Of a number of Soviet kieselguhrs, the advantages of
two samples from Caucasus were established. These
samples were used after removal of iron compounds
from them, which was not necessary in all cases,
however. Igniting of the carrier is also superfluous.
A third sample of diatomaceous earth gave the highest
extent of unsaturation of the obtained gasoline. The
(Materials--Fuels, TT, v. 6, no. 7) (over)

Office of Technical Services

61-16884

Eldus, Ya. T., Fedichkina, T. L. and others.
LOWERING THE REDUCTION TEMPERATURE OF
CATALYSTS FOR SYNTHESIS OF LIQUID HYDRO-
CARBONS FROM CARBON MONOXIDE AND HYDRO-
GEN UNDER ATMOSPHERIC PRESSURE. [1961] 7p.
10 refs.
Order from OTS or SLA \$1. 10 61-16884

I Eldus, Ya. T.
II Fedichkina, T. L.

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk (Izvestiya), 1961, no. 1, p. 34-40.

DESCRIPTORS: Temperature, *Catalysts, Synthesis,
*Hydrocarbons, Carbon compounds, Monoxides,
Hydrogen, *Gasoline, Nickel catalysts.

176592

Several nickel and cobalt catalysts used for synthesis of liquid hydrocarbons from carbon monoxide and hydrogen were investigated to determine whether the temperatures of their reduction could be lowered. The nickel catalysts obtained from oxalates and formates,
(Materials--Fuels, TT, v. 6, no. 6) (over)

Office of Technical Services

61-16889

Rubinshtein, A. M., Pribytkova, N. A. and others.
CATALYSTS FOR SYNTHESIS OF GASOLINE FROM
CARBON MONOXIDE AND HYDROGEN REQUIRING
NO HIGH TEMPERATURE REDUCTION. [1961] 6p.
12 refs.

Order from OTS or SLA \$1.10

61-16889

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

Trans. of Akademiya Nauk SSSR, Otdelenie Khimii,
cheskikh Nauk. (Izvestiya) 1941, no. 1, p. 41-48.

DESCRIPTORS: *Catalysts, Synthesis, *Gasoline,
Carbon compounds, Monoxides, Hydrogen, Reduction,
Temperature, Fuels, Nickel, Cobalt.

A series of nickel and cobalt catalysts for synthesis of
gasoline from hydrogen and carbon monoxide were in-
vestigated, prepared by different methods from dif-
ferent starting materials. Catalysts prepared by de-
composition of ferrocyanides in an atmosphere of hy-
(Chemistry--Organic, TT, v. 6, no. 9) (over)

285403

Office of Technical Services

Netetkin, S. S., Rudenko, M. G., and
Gromova, V. N.
ON THE ACTION OF NITRIC ACID ON HYDRINDAN:
PRELIMINARY REPT. [1963] 10p. (formulae omitted)
11 refs.

Order from OTS or SLA \$1.10 63-14391

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1941, no. 1, p. 61-66.

DESCRIPTORS: *Indene, *Nitric acid, *Nitration,
Hydrogenation, Chemical reactions, Chemical
properties.

(Chemistry, TT, v. 10, no. 5)

63-14391

I. Netetkin, S. S.
II. Rudenko, M. G.
III. Gromova, V. N.

Office of Technical Services

<p>Kazanski, B. A., Rozengart, M. I., and Solovova, O. P. LABORATORY COLUMNS FOR PRECISE FRACTIONATION OF LIQUID MIXTURES. [1961] 8p. 30 refs. Order from OTS or SLA \$1.10 61-18049</p>	<p>61-18049</p>
<p>Trans. <u>Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk, Izvestiya</u>, 1941, no. 1, p. 97-106.</p>	<p>I. Kazanski, B. A. II. Rozengart, M. I. III. Solovova, O. P.</p>
<p>DESCRIPTORS: Fractionation, Mixtures, Liquids, Separation, Distilling plants, Towers (Chemistry).</p>	<p>176599</p>
<p>(Engineering--Chemical, TT, v. 6, no. 6)</p>	<p>Office of Technical Services</p>

Kazanskii, B. A., Solovova, O. P., and Bazhulin, P. A.
HYDROGENATION OF HOMOLOGS OF CYCLOPENTANE WITH SCISSION OF THE RING. [1961] 9p.
16 refs.

Order from OTS or SLA \$1.10

61-16888

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. ~~(Zhurnal)~~ 1941, no. 1, p. 107-114.

DESCRIPTORS: Hydrogenation. *Cyclopentanes

Ethyl- and propylcyclopentanes are converted into a mixture of paraffins by hydrogenation in the presence of platinumized carbon, the scission of the hydrocarbon ring occurring in all possible directions. Isoparaffins are predominantly formed. The direction of the decomposition reaction is affected by the character of the catalyst. On active platinumized carbon, ethyl- and propylcyclopentanes decompose, preserving their individual characteristics. On a fatigued catalyst, the
(Chemistry--Physical, TI, v. 6, no. 6) (over)

61-16888

I. Kazanskii, B. A.
II. Solovova, O. P.
III. Bazhulin, P. A.

176693

Office of Technical Services

62-14123

Kazanskii, B. A. and Rozengart, M. I.
POLYMERIZATION OF ISOBUTENE OVER ALUMI-
NUM SILICATE AT DIFFERENT TEMPERATURES.
[1962] [5]p. 12 refs.
Order from OTS or SLA \$1.10 62-14123

Trans. of ~~Akademiya~~ Nauk SSSR. Otdelenie Khimicheskikh Nauk. [Izvestiya, 1941, no. 1, p. 115-119.
Also available from OTS or SLA \$2.60 in 61-20795
[1961] 25p.

DESCRIPTORS: *Butenes, *Aluminum compounds,
*Silicates, *Catalysts, Temperature, Polymerization

(Chemistry--Organic, TT, v. 10, no. 11)

I. Kazanskii, B. A.
II. Rozengart, M. I.

Office of Technical Services

Petrov, A. D.
ANTI-KNOCK PROPERTIES AND FOUR POINTS OF
INDIVIDUAL HYDROCARBONS OF THE DIESEL
FUEL RANGE. I. [1962] 6p 4refs
Order from OTS or SLA \$1.10 62-14126

Trans. of Akademiya Nauk SSSR. Otdelenie Khimichesk-
kikh Nauk. Izvestiya, 1941, no. 1, p. 145-155.
Also available from OTS or SLA \$2.60 in 61-20795
[1961] 25p.

DESCRIPTORS: *Fuel oil, *Antiknock, *Hydrocarbons,
Methanes, Ethylenes, Naphthenes, Benzenes, Toluenes,
Cyclohexanes, Heptanes, Decenes.

(Materials--Fuels, TT, v. 10, no. 10)

62-14126

I. Petrov, A. D.

Office of Technical Services

61-16693

Sergienko, S. R.
MECHANISM AND RELATIVE VELOCITIES OF
AROMATIZATION OF PARAFFIN HYDROCARBONS, I.
[1961] 13p. 55 refs.
Order from OTS or SLA \$1.60 61-16693

I. Sergienko, S. R.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. (Izvestiya) 1941 (no. 1) p. 177-190.

DESCRIPTORS: *Hydrocarbons, Catalysts, *Octanes,
*Heptanes.

The mechanism of conversion of paraffin hydrocarbons to aromatic hydrocarbons is discussed. The relative velocities of aromatization of normal heptane and normal octane were investigated and normal octane was shown to undergo aromatization at a velocity 1.5 times higher than normal heptane. With periodic regeneration every 2-12 hours, the catalyst may remain active (Chemistry--Organic, TT, v. 6, no. 9) (over)

165392

Office of Technical Services

Serglenko, S. R.
CONTACT CYCLIZATION OF PARAFFINIC HYDRO-
CARBONS. II. INVESTIGATION OF THE REACTION
PRODUCTS. [1961] 9p. 33 refs.
Order from OTS or SLA \$1.10 61-16695

Trans. ~~Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. (Zvestiya)~~, 1941 [no. 1] p. 191-200.

DESCRIPTORS: *Hydrocarbons, Chemical reactions,
Catalysts, Dehydrogenation, *Benzenes, Styrenes,
Decomposition, *Heptanes, *Octanes.

Two catalysts for dehydrocyclization of aliphatic hy-
drocarbons were developed. The aromatic hydrocar-
bons were investigated formed in catalytic cyclization
of the heptane-octane and the nonane fractions of
synthin on these catalysts at 475°. It was shown that
cyclization occurs with predominant formation of
(Chemistry--Organic, TT, v. 6, no. 9) (over)

61-16695

I. Serglenko, S. R.
II. Title: Investigation...

185393

Office of Technical Services

61-18006

Plate, A. F. and Tarasova, G. A.
FORMATION OF AZEOTROPIC MIXTURES OF
OLEFINS WITH PRIMARY ALCOHOLS IN SYNTHESIS
OF OLEFINS USING ORGANOMAGNESIUM COM-
POUNDS. [1961] 6p. 9 refs.
Order from OTS or SLA \$1.10 61-18006

I. Plate, A. F.
II. Tarasova, G. A.

Trans. of Akademiya Nauk SSSR, Otdelenie Khimi-
cheskikh Nauk, (vestiya) 1941, no. 1, p. 201-205.

DESCRIPTORS: *Alcohols, Synthesis, *Ethylenea,
*Mixtures, Oxidation, Hydrolysis, Fractionation,
Hydrocarbons, Magnesium compounds.

185418

In synthesis of olefins from alkylmagnesium halides
and allyl chloride, a primary alcohol is formed by
oxidation of alkylmagnesium halide followed by hydroly-
sis of the obtained alcoholate. This alcohol forms with
the synthesized olefin an azeotropic mixture with a
minimum boiling point. Thus, 1-heptene forms with
(Chemistry--Organic, TT, v. 6, no. 9) (over)

Office of Technical Services

61-18007

Plate, A. F.
CATALYTIC CONVERSIONS OF NORMAL HEXYL-
CYCLOPENTANE. [1961] 5p. 11 refs.
Order from OTS or SLA \$1.10 61-18007

I. Plate, A. F.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. (Izvestiya) 1941, no. 1, p. 206-210.

DESCRIPTORS: *Cyclopentanes, *Catalysts, Gasoline,
Catalysis, Hydrocarbons, Petroleum, Dehydrogenation,
Hexyl radicals.

185130

The behavior of normal hexylcyclopentane was investi-
gated in the presence of platinized carbon at 290-300°
and in the presence of oxide catalysts promoting
aromatization of paraffins at 450-475°. In the first
case, scission of the five-member ring occurs in the
presence of hydrogen and a mixture of undecanes is
formed. In the second case, 20-30% aromatic hydro-
carbons are also formed. Thus, dehydrocyclization of
(Chemistry--Physical, TT, v. 6, no. 8) (over)

Office of Technical Services

BULLETIN OF THE ACADEMY OF SCIENCES OF
THE USSR. DIV. OF CHEMICAL SCIENCE, 1941,
NO. 2: [TABLE OF CONTENTS] AND SELECTED
ABSTRACTS. [1961 9p. + refs.
Order from OTS or SLA \$1.10

61-20794

Abstract trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya 1941, no. 2,
p. 297-335.

DESCRIPTORS: *Chemistry, Abstracting, Periodicals,
Hydrocarbons, Chemical reactions, *Acetylene deriva-
tives, Organic acids, Alcohols, Carbinols, Addition
reactions, Isomerization, Ketones, Butenes, Polymeri-
zation, Scientific research, Colloids, Electrochemistry,
Ethyne radicals.

(Chemistry, TT, v. 7, no. 7)

(over)

61-20794

- I. Title: Mechanism ...
- II. Title: Mechanism of
addition ...
- III. Title: Mechanism of
addition of alcohols ...

Office of Technical Services

62-14131

[BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR. DIV. OF CHEMICAL SCIENCE] 1941, NO. 4/5: [TABLE OF CONTENTS] AND SELECTED ABSTRACTS. [1961] 5p.

Order from OTS or SLA \$1.10 62-14131

Abstract trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1941, no. 4/5, p. 499-518, 521-530, 545-554, 556-564, 621-636.

DESCRIPTORS: *Chemistry, Literature, Abstracting, *Magnesium compounds, Organic compounds, Grignard reagents, *Azo compounds, Alkyl radicals, Ethyl ethers, *Acetylene derivatives, Carbinols, Methyl radicals, Vinyl radicals, Ethynyl radicals, Acetylenes, Allyl radicals, Phenols, Condensation reactions, Water, Dicumarol, Metals, *Corrosion.

(Chemistry--TT, v. 8, no. 4)

(over)

- I. Title: Interaction...
- II. Title: Condensation...
- III. Title: Dimerization...

Office of Technical Services

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 Khimicheskikh Nauk. Zhurnal 1961, no. 4/5, p. 333-343.

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)

176598

Office of Technical Services

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

62-14132

[BULLETIN OF THE ACADEMY OF SCIENCES OF
THE USSR. DIV. OF CHEMICAL SCIENCE] 1941,
NO. 6: [TABLE OF CONTENTS AND SELECTED AB-
STRACTS]. [1961] 4p. 5 refs.
Order from OTS or SLA \$1.10 62-14132

Abstract trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya, 1941, no. 6,
p. 643-650, 661-667, 673-680, 695-708.

DESCRIPTORS: *Chemistry, Literature, Abstracting,
*Intermetallic compounds, Magnesium alloys, Alu-
minum alloys, Alloys, *Cerium, Metals, Vapors,
Salts, Coatings, Polycyclic compounds, *Halogenation,
Theory.

Contents:

To the scientists of all countries
N. S. Kurnakov's theory of intermetallic compounds,
by V. A. Nemilov
(Chemistry, TT, v. 8, no. 4) (over)

I. Title: Mechanism...

Office of Technical Services

Effect of Cerium on the Properties of ~~Mg~~^{Al} Magnesium-
Aluminum Alloys, by V. I. Mikheyeva,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 6, 1941, pp 661-667.

TPA3/TIB Tr No T 4396

Scientific - Min/Metals Mar 55 CTB

21,819

INTERACTION OF DIAZOACETIC ESTER WITH
STANNIC CHLORIDE AND FERRIC CHLORIDE,
BY A. N. NESMEYANOV, A. E. X. SEGALEVICH.

RUSSIAN, PER, IZ AK NAUK SSSR, OTDEL KHIM
NAUK, NO 1, 1942, PP 8-13

NLL M.4639

SCI - CHEM

JUN 62

199,107

61-18058

Balandin, A. A.
CATALYTIC DEHYDROGENATION OF HYDROCARBONS AND ITS APPLICATION TO SYNTHESIS OF RUBBER FROM GASES. [1961] 24p. 90 refs.
Order from OTS or SLA \$2.60 61-18058

I. Balandin, A. A.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1942, no. 1, p. 21-44.

DESCRIPTORS: *Hydrocarbons, *Synthetic rubber, *Dehydrogenation, *Catalysts, Benzenes, Butanes, Butenes, Synthesis, Butadienes, Styrenes, Ethyl radicals.

237

The catalytic dehydrogenation of hydrocarbons on chromic oxide is discussed from the point of view of the author's multiplet theory and examples of dehydrogenation of butane, butene and ethylbenzene given indicating the significance and the applicability of this method for commercial synthesis of butadiene and styrene. (Author)

(Chemistry--Organic,
TT, v. 6, no. 10)
Office of Technical Services

61-16635

Eidus, Ya. T. and Zelinskii, N. D.
INTERACTION OF CARBON MONOXIDE WITH CO-
BALD CATALYSTS USED FOR SYNTHESIS OF GASO-
LINE FROM WATER GAS. [1961] [9]p. 22 refs.
Order from OTS or SLA \$1.10 61-16635

I. Eidus, Ya. T.
E. Zelinskii, N. D.

Trans. of Akademiya Nauk SSSR, Otdelenie Khimiches-
kikh Nauk *zvestiya*, 1942 [no. 1] p. 45-53.

DESCRIPTORS: *Gasoline, Synthesis, Hydrocarbons,
Carbon compounds, Monoxides, *Cobalt catalysts,

Interaction of carbon monoxide with the catalyst cobalt-
thorium dioxide-tungsten used for synthesis of gaso-
line from water gas was investigated in experiments
by the flow method within the temperature interval of
190 to 270°. Interaction in the solid phase leads to
formation of a carbide and liberation of free carbon.
At 190-210° carbide formation is the prevailing
reaction. Carbon is formed in but slight amounts at
(Materials--Fuels, TT, v. 6, no. 7) (over)

ISI 775

Office of Technical Services

V
Physico-Chemical Properties of the Fluorine Compounds of Tetravalent Uranium, by V. G. Khlopin, M. L. Yashchenko, 17 pp. UNCLASSIFIED

RUSSIAN, per, Iz Ak Nauk SSSR Otdel Khim Nauk, Nos 2, 3, 1942, pp 87-97.

AEC Tr 1959

RT-2142

Scientific - Chemistry

18,689

(U-1188)

On the Theory of the Rate of Crystallization
Processes at Decreasing Concentration of the
Crystallizing Substance in a Homogeneous Phase
by O. M. Todes, 13 pp.

RUSSIAN, per, In Ak Nauk SSSR, Otdel. Khim. Nauk,
No 2/3, 1942, pp 106-115.

AFRS 4187

Sci - Chem
Nov 60

133, 609

61-16658

Antsus, L. I. and Petrov, A. D.
CHEMISTRY OF CATALYTIC HYDROPOLYMERIZA-
TION OF ACETYLENE. [1961] 10p. 23 refs.
Order from OTS or SLA \$1.10 61-16658

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. (Izvestiya), 1942, p. 125-134.

DESCRIPTORS: *Acetylenes, Polymers, Raman
spectroscopy, Hexanes, Octanes, Hydrocarbons,
Catalysis, Hydrogenation, *Polymerization.

Acetylene tetramers of branched chain structure were
obtained for the first time as products of partial hy-
drogenation of acetylene. Among the hydrotrimers of
acetylene, the following olefins were found: 1-hexene,
2-hexene, 3-hexene, 3-methyl-1-pentene, 3-methyl-2-
pentene, 2-methyl-1-pentene, 2-methyl-2-pentene and
2,3-dimethyl-2-butene; of diolefins, the following were
found: 1,5-hexadiene, 3-methyl-1,4-pentadiene and
(Chemistry--Organic, TT, v. 6, no. 8) (over)

1. Title: Hydropolymerization
I. Antsus, L. I.
II. Petrov, A. D.

135107

Office of Technical Services

Eidus, Ya. T. and Zelinskii, N. D.
CARBIDE FORMATION AS AN INTERMEDIATE
STAGE OF CATALYTIC SYNTHESIS OF HYDRO-
CARBONS FROM WATER GAS. [1962] 7p. 13 refs.
Order from OTS or SLA \$1.10 62-14616

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1942 [no. 4] p. 190-194.

DESCRIPTORS: *Carbides, Production, *Hydrocarbons,
*Gasoline, Synthesis, *Hydrogen, *Carbon compounds,
*Monoxides, Chemical reactions, Cobalt, Thorium
compounds, Dioxides, Catalysts, Catalysis.

It was established that carbides formed under the action
of carbon monoxide on the cobalt-thorium dioxide-
kieselguhr (from Kisatibi, Georgia) catalyst composed
in the proportion of 100:18:100 constitute neither inter-
mediate products nor catalysts promoting the forma-
(Chemistry--Organic, U.S.S.R., no. 4) (over)

62-14616

I. Eidus, Ya. T.
II. Zelinskii, N. D.

Office of Technical Services

Gervart, Yu. G. and Frank-Kamenetskii, D. A.
PERIODIC REACTIONS AND MECHANISM OF OXI-
DATION OF HYDROCARBONS. [1961] 11p. 14 refs.
Order from GTS or SLA \$1.60 61-16665

Trans. of Akademiyi Nauk SSSR, Otdeleno Khimi-
cheskikh Nauk. Izvestiya, 1942, p. 210-220.

DESCRIPTORS: Hydrocarbons, Combustion, Flames,
Oxidation, Fuels

On passing a turbulent stream of mixtures of higher hydrocarbons with air or oxygen through a reactor under conditions insuring complete mixing of the intake mixture with the reacting mixture periodic flashes (pulsations) of cool flame are observed. Experimental data support the chemical nature of the phenomenon. Formation and the stability of cool flame pulsations are connected with high contents of unsaturated hydrocarbons in the mixture. The frequency of pulsations is not much affected by the type of fuel, its content in the (Chemistry-Physical, TT, v. 1, no. 7) (over)

61-16665

I. Gervart, Yu. G.
II. Frank-Kamenetskii, D. A.

1971

Office of Technical Services

61-16661

Khlopin, V. G.
CHEMISTRY IN THE ACADEMY OF SCIENCES USSR
DURING THE PAST TWENTY-FIVE YEARS. [1961] 7p.
Order from OTS or SLA \$1.10 61-16661

I. Khlopin, V. G.

Condensed trans. of Akademiya Nauk SSSR, Otdelenie
Khimicheskikh Nauk, Izvestiya, 1942, p. 333-365

DESCRIPTORS: *Chemistry, Scientific research, High
pressure research, Refractory materials, USSR

176565

The chemical researches carried out during the period
1917-1942 in laboratories directly attached to the
Academy of Sciences are listed without reporting their
details or giving specific references. A great expansion
of the scope of chemical research is revealed with an
ever increasing tie with various industries of U. S. S. R.,
although the primary purpose of the review is given as a
discussion of the new trends in chemistry which origi-
nated during the above mentioned period. (Author)

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

(over)

Iz Ak Nauk SSSR, Otdel Khim Nauk,
No. 1, page 28-34
~~Yuzbki~~
(1943)

Adsorption of Uranyl Salts on Solid Adsorbents
~~by~~ by Yu. M. Tolmachev.

AEC Trans (avail. Brookhaven)

Reactions of Some Oxygenated Organic Compounds Over
the Cobalt Catalyst Used for Synthesis of Gasoline
From Water Gas, by Ya. T. Eidus.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
1943, pp 65-72.

SLA 61-16925

Sci

Feb 62

186,836

Alloying of Alloys of Aluminium With Zinc and
Lithium, by T. A. Badaeva, F. I. Shamral,

Tran, per. Iz Ak Nauk SSSR. Otdel Khim Nauk, No 2,
1957, pp 99-107.

Sci Museum Lib No 52/2330

Sci Museum Lib No 52/2330

Metallurgy, alloys, aluminium, zinc, lithium

Metals

Sci Museum AL 2-1539

61-16927

Eidus, Ya. T., Epifanski, P. F. and others.
THE ACTIVATING EFFECT OF OXIDES OF SOME
METALS ON THE IRON-COPPER CONTACTS USED
FOR SYNTHESIS OF GASOLINE FROM WATER GAS.
[1961] 7p. 23 refs.
Order from OTS or SLA \$1.10 61-16927

- I. Eidus, Ya. T.
- II. Epifanski, P. F.

Trans. of Akademiya Nauk SSSR, Otdelenie
Khimicheskikh Nauk, Izvestiya, 1943, p. 145-151.

DESCRIPTORS: *Gasoline, Synthesis, *Catalysts,
Oxides, Carbon compounds, Monoxides, Hydrogen.

Fifteen catalysts were tested for synthesis of gasoline
from water gas. These catalysts contained the fol-
lowing components: 100 Fe; 25 Cu; 2K₂CO₃; 125
Kisatibi Kieselguhr. The activating effect of pro-
moters was investigated, consisting of oxides of various
metals (manganese, magnesium, aluminum, thorium),
used in amounts of 2% on the iron. As a rule catalysts
prepared by precipitation were more active than those
(Materials--Fuels, TT, v. 6, no. 7) (over)

Office of Technical Services