Action of Hydrogen Peroxide in Trivalent and Tetravalent Plutonium in Hydrochloric Acid Solution, by A. S. Ghosh Mazumder, P. V. ~~XXIX~~ Balakrishnan, et al, 12 pp.

HINDI, per, Vijnana Parishad Anusandhen Patrika, Vol IV, 1961, pp 149-160. 9208269

AEC-UCRL-Tr-938(L)

Sci-Chem
Jun 63

~54,259

Table of Contents, Review of text and Preface of Soviet University Textbook: S Technology of Machine Tool Production, by Prof Balakshin, 21 pp.

RUSSIAN, GERMAN, bk, Encl to IR-507-56, USAFE, ATI Dir, 25 Apr 1956. CIA D 491167

AF 745161 35,591

Sci - Engineering

Jun 1956

High Latitudinal Oceanographic
Expedition of the Diesel-Electric
Vessel Ob', by L. L. Balakshin.
RUSSIAN, per. Problemy Arktiki, No 3,
1958, pp 124-127.
OTS TT-64-19774

318,654

Jan 67

Main Types of Pneumatic Measuring Devices, by O. B. Balakshin.
RUSSIAN, per, Avtomat. [illegible], Izmerit. [illegible] v [illegible], 1964, pp 15-19.
NLL M/S 3362

O. B. Balakshin

Sci-Engr
Nov 67

345,849

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

69

Automation of Pneumatic Gauge Controls in Machine Building, by O. B. Balakshin.
RUSSIAN, per, [illegible] [illegible]
v [illegible], 1956, pp 125-131.
NLL [illegible]

O. B. Balakshin

Sci-Engr
Nov 57

345,248

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Structural Changes and Strength of Steel Under High-Frequency Cyclic Loading, by Yu. F. [redacted] Balalayev, 4 pp.

RUSSIAN, per, Metallov i Term Obrabotka Metallov, No 4, 1960.

Acta Metallurgica

Sci

Jul 62

204,040

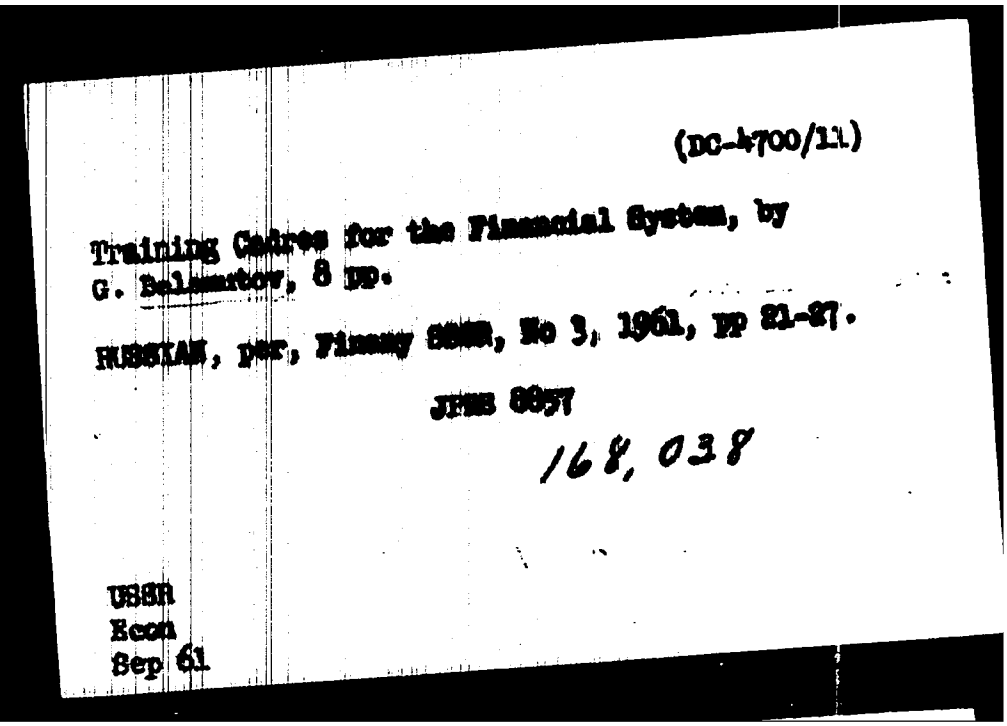
Vapour Pressure and Vapour Density in Systems Containing Organosilicon Compounds. III. Dimethyldichlorsilane-Methyl(chromethyl)dichlorosilane-methyl(dichloromethyl dichlorosilane and Trimethylchlorosilane-dimethyl-(chlomethy)chlorosilane-dimethyl(dichloromethyl)chlorosilane Systems, by E. A. Balasntova, M. I.Shakhparonov, S. L. Lel'chuk, pp 2.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIV. No 10, 1960, pp 2156-2159

Cleaver-Hume Press 16 11, 210

Sci

Aug 61



(DC-4700/11)

Training Cadres for the Financial System, by G. Belyaev, 8 pp.

RUSSIAN, Per, Finansy SSSR, No 3, 1961, pp 81-87.

JPRS 8857

168,038

USSR
Econ
Sep 61

Vapour Pressure and Vapour Density in Systems Containing Organosilicon Compounds. I. The System Benzene-Methyldichlorosilane-Methylphenyldichloro-Silane, by M. I. Shakhparonov, E. A. Balamutova, S. L. Lel'chuk, 4 pp.

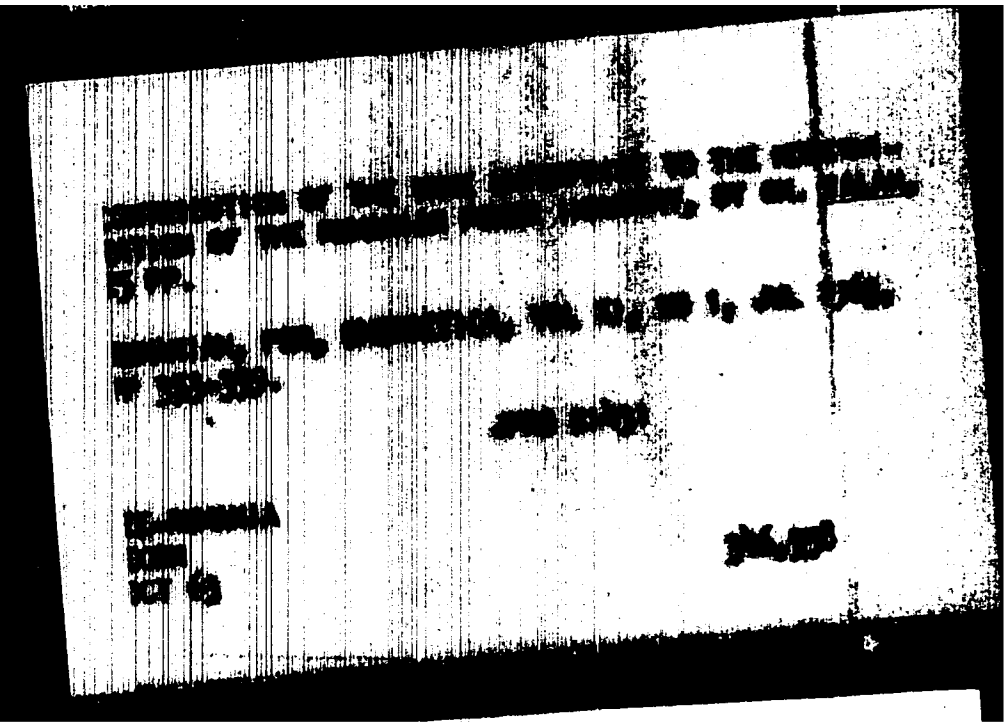
RUSSIAN, per, Zhur Fiz Khim, Vol XXXIV, No 8, 1960, pp 1734-1740.

Cleaver-Hume Press

161,542

Sei

Aug 61



APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Photomicroscopy - A New Analytical Method for Quality Control of Matches XR by V. Balan, 9 pp.

RUMANIAN, per, Industria Lemnului, No 4, 1960, pp 140-143.

ERDL, Ft Belvoir
T-1112

Sci
Jun 61

158,015

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

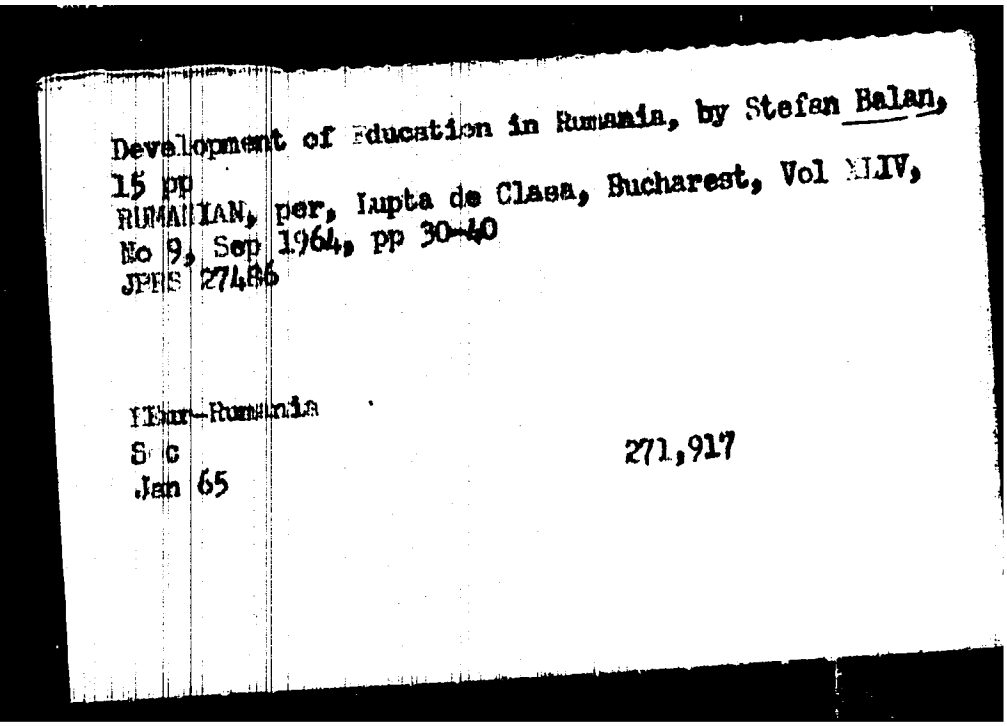
The Necessity and Possibility of Expanding the Industrialization of Construction in Our Country, by St. Balan, 26 pp. UNCLASSIFIED

RUMANIAN, mo per, Probleme Economice, Vol X, No 12, Bucharest, Dec 1957, pp 47-62.

US JPRS/DC-L-109

EE - Rumania
Econ - Construction
Apr 58

61,545



Development of Education in Rumania, by Stefan Balan,
15 pp
RUMANIAN, per, Lupta de Clasa, Bucharest, Vol XLIV,
No 9, Sep 1964, pp 30-40
JPRS 27486

[illegible]-Rumania
S c
Jan 65

271,917

Photomicroscopy - A New Analytical Method for Quality Control of Matches XX by V. Balan, 9 pp.

RUMANIAN, per, Industria Lemnului, No 4, 1960, pp 140-143.

ERDL, Ft Belvoir
T-1212

Sci
Jun 61

158,015

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

77

Proposal For Granulating Blast Furnace Slag in the Trinec Steel Works, by Z. Bolan.
CZECH, per, Hutnik, Vol 13, No 10, 1963, pages 490-493
*BISI 6067

Z Bolan

Sci/Materials
January 1968

MNitrogen Nutrition of Tobacco, by V. Olendskiy, D. Balanda.

RUSSIAN, per, Sbornik Nauch-Issled Rabot Institt Tabaka i Makh imeni Mikoyana, No 156, 1958, pp 123-138.

CSIRO 5353

207,622

Sci - Chem
Jul 62

Multiplet Theory of Catalysis, by A. Balandin.

RUSSIAN, mono, Multipletnaya Teoriya Kataliza.
Moxscow, 1963.

*CB

Sci-Chem
Nov 63

BALANDIN, A. (see

(see FREIDUN, L.) AP XXI, No 1, 46, 55

The distribution of active centres on mixed catalysts.
I. Decomposition of isopropyl alcohol on
$Al_2O_3 \cdot ZnO$",
AP XXI, No 4, 46, 678

A455

(see ROLE, T.) AP XXI, No 5, 46, 853

Kinetics of hydrogenation and of related reactions.
I. The Mechanism of Hydrogenation, dehydrogenations
and denterium exchange,
AP XXII, No 1, 47, 81

over

Divinylbenzene Productions by Catalytic Dehydrogenation of Diethylbenzene, by A. A. Balandin, N. I. Shuikin, G. M. Narukyan.

48

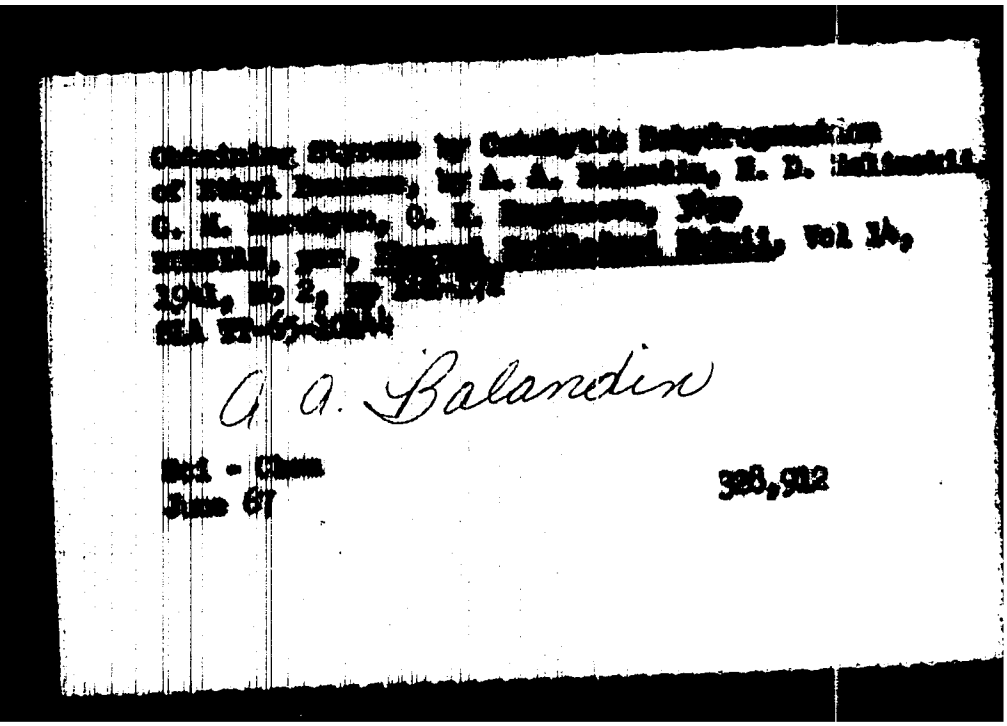
RUSSIAN, per, Zhurnal Prikladnoi Khimii, Vol 32, No 11, 1959, pp. 2566-70.

NTC 69-11745-07A

A. A. Balandin

Sci-Chem
July 69

386,617



A. A. Balandin

Cl. - Chem
June 67

398,902

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

The Bond Energies of "Organogenic"
Elements with Surfaces of Oxide Catalysts,
by A. A. Balandin, A. A. Tolstopyatova,
V. A. Naumov, 6pp.
RUSSIAN, per, [redacted] Nauk,
Vol 148, 1963, No 4, pp 825-828.
CFSTI TT-64-18769.

A A Balandin

3-3,207

Sci - Chemistry
Apr 67

[illegible] of [illegible] in Mixture with
Xylene, by A.A. [illegible] and [illegible] Marukyan.
RUSSIAN, per, [illegible] Khimii, 1946,
Vol. 19, no. 12, pp.[illegible].
SLA-TT-64-20366

A.A. Balandin

Chem
Aug 66

7
306,620

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

On the Mechanism Underlying the Interaction of Cyclohexane with the Surface of a Metallic Catalyst, by A. A. Khalandin, B. S. Gudkov, et al., 3 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Physical Chemistry, Vol CLV, No 3, Mar, Apr, 1964, pp 626-[illegible]628.

CB

Sci
May 65

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

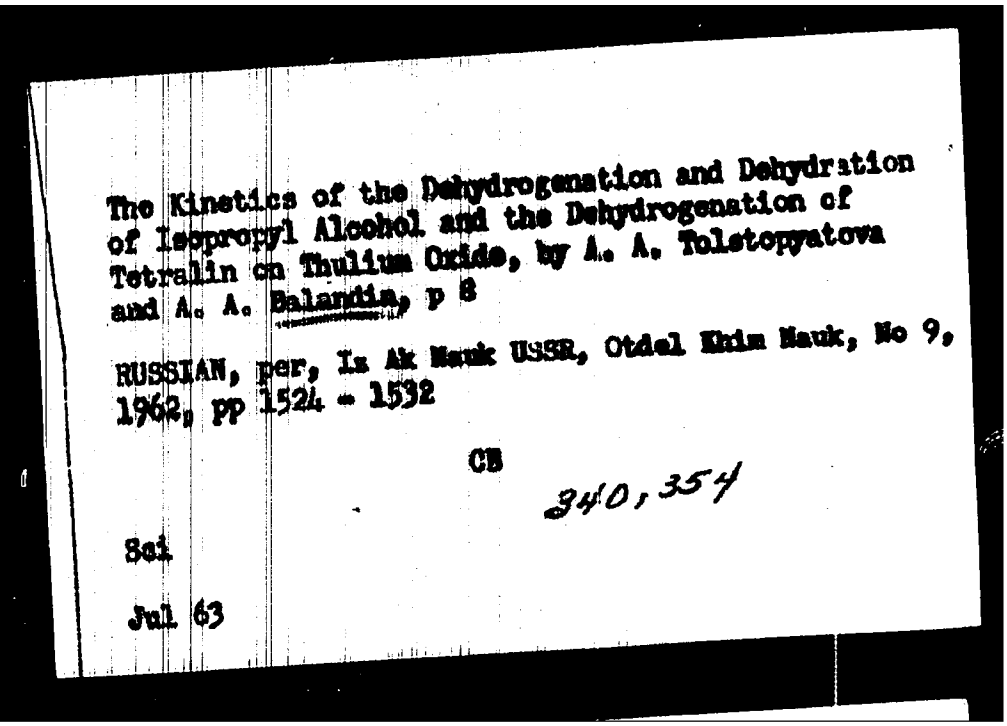
The Dehydrogenation and Hydrogenolysis of Cyclohexane on a Ruthenium-Silica Catalyst, by F. B. Gonsin, A. A. Balandin, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Ser Khim, No 7, 1964, pp 1196-1202.

CB

Sci
Jul 64

263,466



The Kinetics of the Dehydrogenation and Dehydration of Isopropyl Alcohol and the Dehydrogenation of Tetralin on Thulium Oxide, by A. A. Tolstopyatova and A. A. Balandin, p 8

RUSSIAN, per, Iz Ak Nauk USSR, Otdel Khim Nauk, No 9, 1962, pp 1524 - 1532

CB

340,354

Sci

Jul 63

Catalytic Dehydrogenation of Chloroethylbenzene.
By A. A. Balandin, G. M. Marukyan pp. 5

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11, 1962, pp. 2031-2035

CB

Sci

344,515

Sep 63

The multiplet theory of Catalysis. Structural factors in catalysis
By A. A. Balandin, pp 26

RUSSIAN, per, Uspekh Khim, No 11, 1962, pp 1265-1308

CS

340,769

Sci

Jun 63

Balandin, A. A.
KINETICS OF CATALYTIC MONOMOLECULAR REACTIONS IN A FLOW SYSTEM, WITH DISCOUNT OF DISPLACEMENT THROUGH ALIEN SUBSTANCES. [1962] 8p. 10 refs.
Order from OTS or SLA $1.10 62-20386

Trans. of Zhur[nal] Obshchei Khim[ii] (USSR) 1942, v. 12, no. 3/4, p. 153-159.
An abstract trans. is available from OTS or SLA $1.10 in 61-20325 [1961] 5p.

DESCRIPTORS: *Reaction kinetics, *Catalysis, Fluids, Pressure, Dehydrogenation, Alcohols, Molecular isomerism.

A kinetic equation was deduced and solved for a general case mentioned in the title (steady state). Some admissible simplifications were examined. Re-
(Chemistry--Physical, TT, v. 9, no. 12) (over)

62-20386

I. Balandin, A. A.

Office of Technical Services

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Kinetics of Dehydrogenation and Dehydration of Isopropyl Alcohol and Dehydrogenation of Tetralin on Dysprosium Oxide, by A. A. Tolstopyatova and A. A. Balandin, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 7, 1962, pp 1154-1163

CB

Sci

May 63

342, 72?

A Study of the Hydrogenolysis of Xylitol. II. Effect of Promoters, by N. A. Vasyunina, A. A. Balandin, et al, 6 pp.
RUSSIAN, per, Kinetika i Kataliz, Vol IV, No 3, 1963, pp 443-449.
CB

Sci

Aug 64

265,442

Kinetics of Dehydrogenation and Dehydration of Isopropyl Alcohol and Dehydrogenation of Tetralin on Gadolinium Oxide, by A. A. Balandin and P'eng Pi-Hsiang. [illegible] 6 pp,

RUSSIAN, pub, In Ak Nauk SSSR, Otdel Khim Nauk, No 8, 1962, pp. 1330-1335.

CB

Sci

Jun 63

342, 600

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

The Catalytic Properties of Iron Phosphate. Communication 1. Dehydration of Alcohols, by A. A. Balandin, A. I. Kukina, 7 pp.

RUSSIAN, per. In Ak Nauk SSSR, Otdel Khim Nauk, No 4, 1962, pp 574-581.

CB

Sci

Feb 63

233,265

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Investigation of the Mechanism of Some Heterogen Catalytic Processes Using C^{14}-Labeled Compounds, G. V. Isagulyants, A. A. Balandin.

RUSSIAN, rpt, Conference on Radioisotopes in the Physical Sciences and Industry, Copenhagen, September 6-17, 1960, 3: 245-54(1962). 9203641

AEC/Tr 5502

Sci - Nucl Sci & Tech

1963

226,571

The Effect of the Structure of Compounds on the Kinetics and the Direction of Their Catalytic Hydrogenation. I. The Energy of Conjugation and the Kinetics of Catalytic Hydrogenation of Benzene, Pyridine, and Pyrrole, by A. A. Balandin, M. L. Khudekel', V. V. Patrikeev, 7 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 5, 1961, pp 1416 - 1422

CB

191,933

Sci
Mar 62

Balandin, A. A.
STRUCTURAL CONFORMITY DURING CATALYSIS.
[1962] 5p. 30 refs.
Order from OTS or SLA $1.10 62-16575

Trans. of Akad[emiya] Nauk SSSR. Doklady, 1960, v. 133 [no. 5] p. 1073-1076.

DESCRIPTORS: *Catalysts, *Crystal structure, Metallic crystals, Tables

A table of smallest interatomic distances for 4 types of crystalline lattices is compiled on the basis of the data of L. E. Sutton (Tables of Interatomic Distances and Configuration in Molecules and Ions, London, 1958).

(Chemistry--Physical, TT, v. 8, no. 9)

62-16575

1. Balandin, A. A.

C220611

Office of Technical Services

Balandin, A. A., Eldus, Ya. T., and Zalogin, N. G. ON THE FORMATION OF BUTADIENE AND ACETYLENE BY THE ACTION OF HIGH-FREQUENCY DISCHARGES ON ETHYLENE. [1961] 7p. (1 graph refs. omitted)
Order from OTS or SLA $1.10 61-20935

Trans. of Akademiya Nauk SSSR. Doklady, 1934, v. 4, [no. 1/2] p. 132-135.

DESCRIPTORS: Butadienes, Acetylenes, Electric discharges, High frequency, Ethylenes.

(Unannounced)

61-20935

I. Balandin, A. A.
II. Eldus, Ya. T.
III. Zalogin, N. G.

217163

Office of Technical Services

Synthesis and Transformations of (Dihydroanthrylene) Naphthohydroquinone (Contribution to the Stereochemistry of Catalysis), by A. A. Balandin, et al, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 12, 1961, pp 2189-2191.

CB

Sci
Sep 62

211,832

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Kinetics Of Dehydrogenation Of Alcohols by A.A. Balandin and S.L.Klyachko.

[illegible], per, Zhurnal Fizicheskoi Khimii, Vol XXXI, No 1, 1957, pp 139-149.

CSIRO

Oct. 62

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Composition of the Butenes Fromed in the Catalytic Dehydration of 2-Butanol, by A. A. Balandin, E. I. Klabunovskiy, 7 pp.

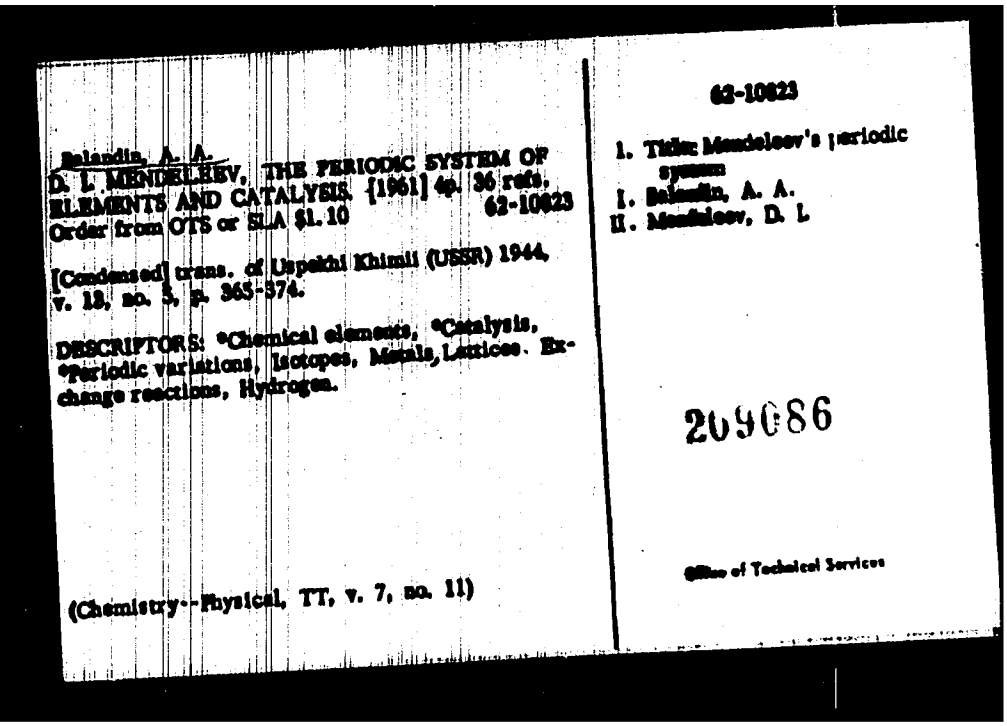
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 10, 1961, pp 1863-1870.

CB

Sci

Jul 62

205,119



Balandin, A. A.
D. I. MENDELEEV, THE PERIODIC SYSTEM OF ELEMENTS AND CATALYSIS. [1961] 4p. 36 refs. Order from OTS or SLA $1.10 62-10823

[Condensed] trans. of Uspekhi Khimii (USSR) 1944, v. 13, no. 5, p. 365-374.

DESCRIPTORS: *Chemical elements, *Catalysis, *Periodic variations, Isotopes, Metals, Lattices. Exchange reactions, Hydrogen.

(Chemistry--Physical, TT, v. 7, no. 11)

62-10823

1. Title: Mendeleev's periodic system
I. Balandin, A. A.
II. Mendeleev, D. I.

209686

Office of Technical Services

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Mechanism of Dehydrogenation of Cyclohexane on the Crystalline a-Oxide of Chromium, by A. A. Balandin, I. D. Rozhdestvenskaya, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11, 1961, pp 1955-1962.

CB

Sci
Jul 62

205,117

The Catalytic Properties of Thorium Dioxide in the Dehydrogenation and Dehydration of Alcohols and in the Dehydrogenation of Cyclic Hydrocarbons, by A. A. Balandin, A. A. Tolstopyatova, et al, 12 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 2, 1961, pp 273-284.

CB

Sci
Jun 62

200,099

Kinetics of the [redacted] Dehydrogenation and Dehydration of Ethyl and Isopropyl Alcohols on Yttrium Oxide, by A. A. Balandin, I. R. Koneko, et al, 7 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 6, 1961, pp 900-906.

CB

Sci 210,459
Sep 62

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

4

TI ALYTIC DEMETHYLATION OF ISOMER C CR SOLS TO PHEN BY STEAM, (U) A. A. BALANDI T. A. SOLOVONH TOVA, 4 PP.

RUSSIAN, PER, DOK AK NAUKSSSR, VOL CXLI, NO 4, 1961, PP 839-842.

CB

SCI

AUG 62 205,820

CATALYTIC DEHYDROGENATION OF ALKYLPHENOLS, BY A. A. BALANDIN, G. M MARUKYAN, 4 PP.

RUSSIAN, PE, DOK AK NAUK, SSSR, VOL CXL , NO 3, 1961. PP 616-619.

CB

SCI

AUG 62 205,812

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Dehydrocondensation of Methane With the Formation of Carbonaceous Material, by A. P. Rudenko, A. A. Balandin, 4 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 4, 1961, pp 529-533.

CB

Sci

Jun 62

200,447

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Balandin, A. A., Neiman, M. B., Bogdanova, O. K. and others.
INVESTIGATION ON THE DEHYDROGENATION OF BUTANE-BUTYLENE MIXTURES WITH THE HELP OF TAGGED ATOMS. [1963] 23p 23refs
Order from OTS, SLA, or ETC $2.60 TT-64-10701

Trans. of Problemy Kinetiki i Kataliza (USSR) [1957] v. 9, p. 45-60. (Abstract available)

DESCRIPTORS: *Butadienes, Synthesis (Chemistry), *Butanes, *Butenes, *Dehydrogenation, Hydrogenation, Reaction kinetics, *Labeled substances,

Under conditions of B.B. mixtures dehydrogenation the formation of butadiene occurs on the account of dehydrogenation of butylene; butane is practically not directly converted to butadiene. In other words, butylene is the predecessor of butadiene, whereby its desorption rate
(Chemistry--Physical, TT, v. 11, no. 9) (over)

TT-64-10701

I. Balandin, A. A.
II. Neiman, M. B.
III. Bogdanova, O. K.

Office of Technical Services

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Catalytic Properties of Dysprosium Oxide as Applied to Dehydrogenation and Dehydration of Alcohols and Dehydrogenation of Tetralin, by A. A. Balandin, A. A. Tolstopyatova, 6 pp.

RUSSIAN, per. Iz Ak. Nauk, Otdel Khim Nauk, No 6, 1962, pp 974-979.

CB

Sci

May 63

233,746

The Mechanism by Which Propene Forms During the Decomposition of Isopropyl Alcohol Over Vanadium Trioxide, by A. A. Balandin, G. V. Isagulyants, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 9, 1962, pp 1549-1551.

CB

202,195

Sci

Jul 62

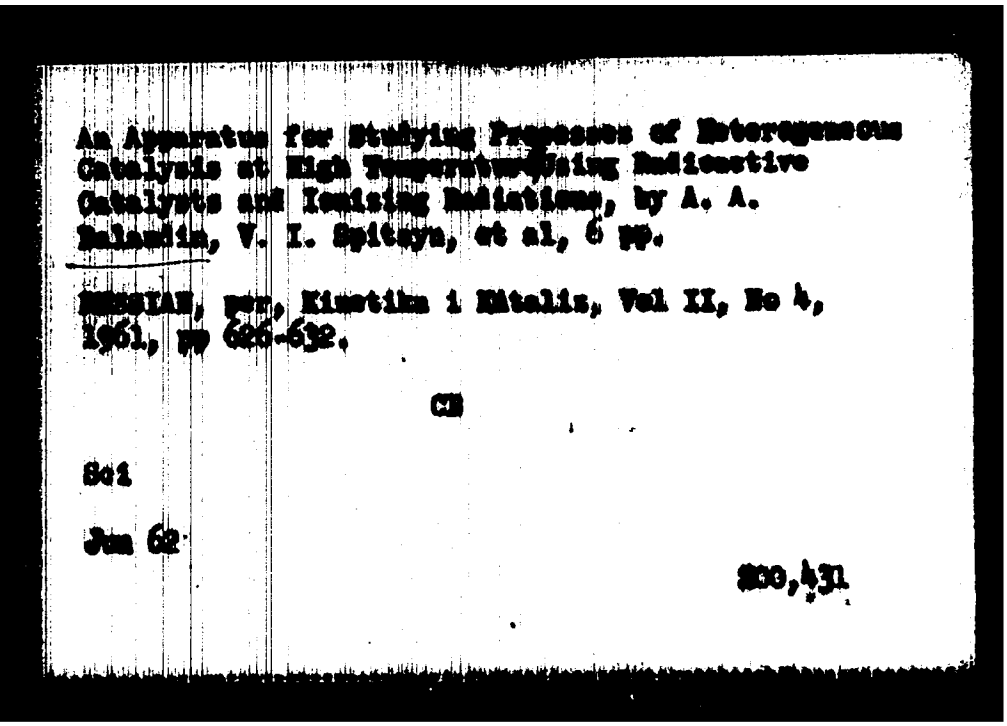
The Catalytic Behavior of Niobium Pentoxide During Vapor-Phase Amination of Ethyl Alcohol With Aniline, by A. A. Balandin, N. P. Sokolova, 5 pp.

RUSSIAN, par, In Ak Nauk SSSR, Otdel Khim Nauk, No 9, 1961, pp 1543-1548.

CB

202,794

Sci
Jul 62



An Apparatus for Studying Processes of Heterogeneous Catalysis at High Temperatures Using Radioactive Catalysts and Ionizing Radiations, by A. A. Balandin, V. I. Spitsyn, et al, 6 pp.

[illegible], per, Kinetika i Kataliz, Vol II, No 4, 1961, pp 626-632.

CB

Sci

Jun 62

[illegible]

Effect of the Structure of Alkylaromatic Hydrocarbons on the Kinetics of Their Dehydrogenation, by O. K. Bogdanova, A. A. Balandin, 3 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVIII, No 5, 1961, pp 1089-1092.

[illegible]

Sci

May 62

195,205

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Hydrogenation of γ-Keto Acids Over Colloidal Palladium Catalyst, by E. I. Klabunovskiy, A. A. Balandin, 3 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXIX, No 2, 1961, pp 377-380.

CB

Sci

200,778

Jun 62

Rhenium as a Hydrogenation Catalyst, by
A. A. Balandin, E. I. Karpeyiskaya, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXIX,
No 5, 1961, pp 1101-1104.

CB

Sci

200,800

Jun 62

"The Pentoxides of Niobium and Tantalum as Dehydration Catalysts," by A. A. Balandin, N. P. Sokolova, Yu. P. Simanov, 9 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1961, pp 415-424.

CB

200,646

Sci
Apr 62

Mechanism of Carbon Formation in the Decomposition of Methane, Ethane, Ethylene, and Acetylene on Silica Gel, by A.P. Rudenko, A.A. Balandin, M. M. Labolotnaya, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 6, 1961, pp 989-995.

CB

200,649

Sci
Apr 62

Kinetics of Dehydrogenation and Dehydration of Alcohols and Dehydrogenation of Hydro carbons on WS2 and MoS2 Catalysts by, A.A. Tolstopyatova, A.A. Balandin, V.Kh. Matyushenko, 8pp.

RUSSIAN, per, Is Ak Nauk SSSR, Otdel Khim Nauk, No 4, 1961, pp. 583-590.

CB

200,669

Sci.
April 62

On the Influence of the Radioactive Radiation of a Solid Body on Its Catalytic Properties by, A.A. Balandin, Vikt. I. Spitsyn, N.P. Dobrosel'skaya, 5pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 4, 1961, pp. 565-570.

CB

200.666

Sci.
April 62

Effect of the Structure of Compounds on the Kinetics and Direction of Their Catalytic Hydrogenation. II. Kinetics of Hydrogenation of Furan, Thiophene, and Ferrocene on Rhodium, by A. A. Balandin, M. L. Khidekel', 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 6, 1961, pp 1876-1882.

CB

Sci

Jun 62

201,881

Determination During the Formation of Carbonaceous Ma-
Matter and Tar From Ethylene and Acetylene, by
A. F. [illegible], A. A. Balandin, 5 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 3,
1961, pp 440-445.
NP

CS

[illegible],765

Sci

Jan 62

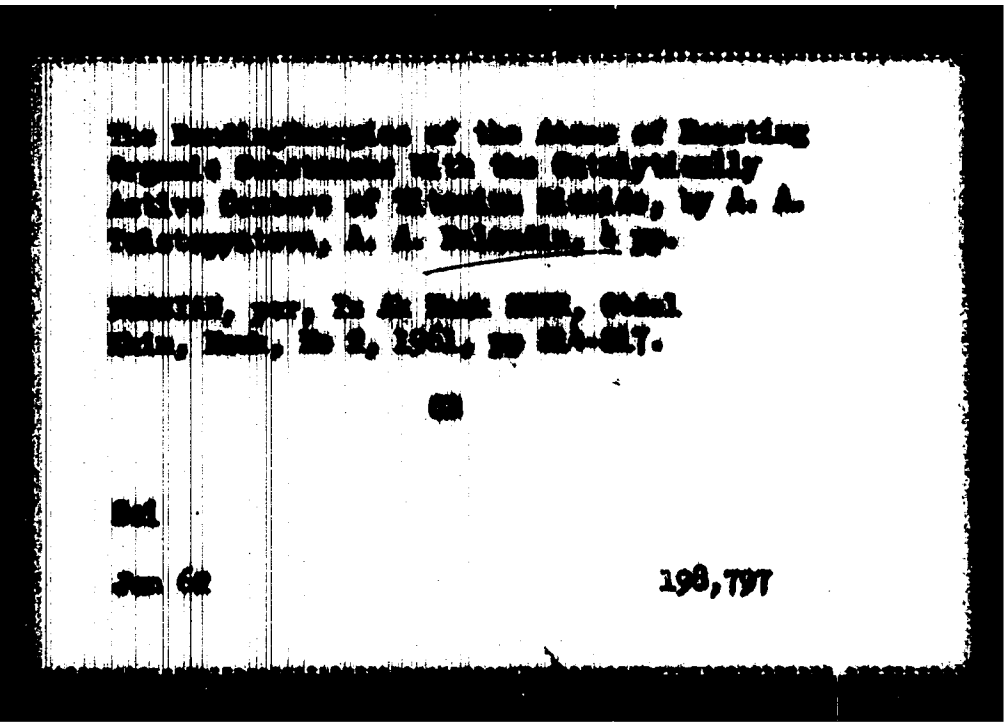
"Regularities in the Catalytic Dehydrogenation of Primary and Secondary Alcohols," by O. K. Bogdanova, A. A. Balandin, A. P. Shchegl[illegible]va, 5 pp.

RUSSIAN, per, Izv Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1961, pp 425-43[illegible].

200,647

Sci
Apr 62

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5



198,797

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Kinetic Determination of the Energies of Bonds Formed by J. C. and O Atoms with a V_2O_3 Catalyst, by

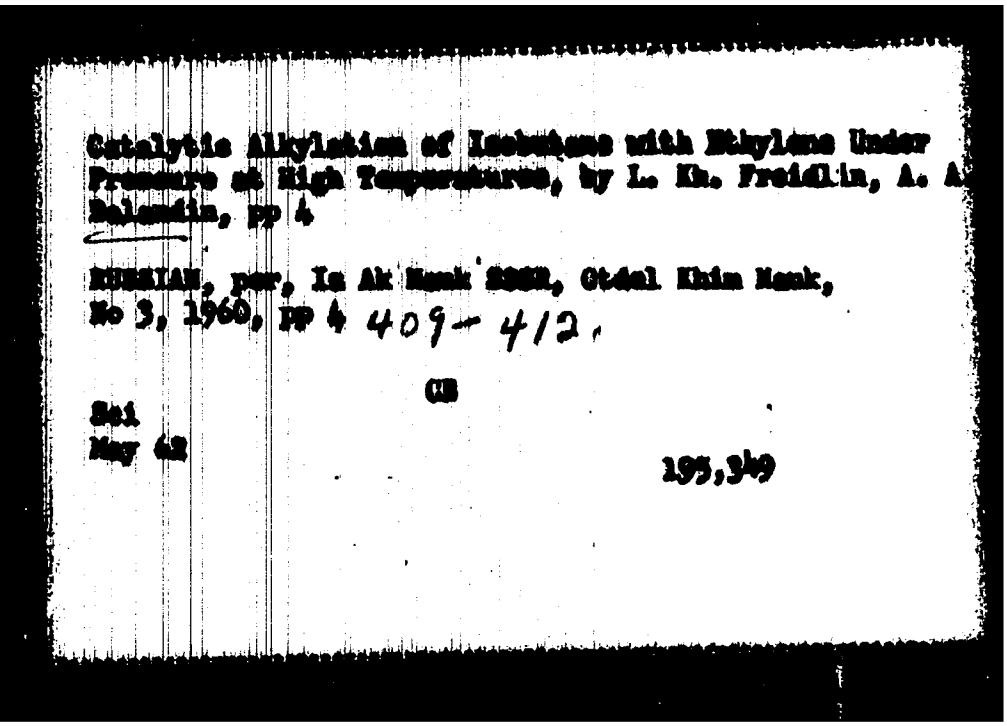
A. A. Balandin, N. P. Sokolova, pp 10,

RUSSIAN, Fiz, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1960, pp 398-408.

Cb

Sci
May 62

195,348



Catalytic Alkylation of Isobutane with Ethylene Under Pressure at High Temperatures, by L. Kh. Freidlin, A. A. Balandin, pp 4

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1960, pp 4 409-412.

GB

Sci
May 62

195,349

Regularities on the Catalytic Properties of the Rare Metals, by A. A. Tolstopyatova, A. A. Balandin, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVIII, No 6, 1961, pp 1365-1368.

[illegible]

Sci

May 62

195,981

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Effect of Method of Preparation on the Catalytic Properties of Titanium Dioxide in Reactions of Ethyl and Isopropyl Alcohol and Cyclohexane, by A.A. Balandin, I.R. Koenko, A.A. Tolstopyatova, pp

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 1, 1961, pp 45-50.

CB

198,115

Sci
Apr 62

Kinetics of Dehydrogenation and Dehydration of Isopropyl Alcohol on Titanium Dioxide, by A.A. Tolstopyatova, I. R. Konenko, A. A. Balandin, 5 pp. RUSSIAN, Per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 1, 1961, pp 38-44.

CB

198,116

Sci
Apr 62

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Balandin, A. A. and Eydus, Ya. T.
ROLE OF THE PRINCIPLE OF CONSERVATION OF THE VALENCE ANGLE IN THE MULTIPLET THEORY OF CATALYSIS. [1961] [4]p. 22 refs.
Order from OTS or SLA $1.10 61-20136

Trans. of [Akademiya Nauk SSSR]. Comptes Rendus (Doklady) l'Academie des Sciences de l'U. R. S. S., 1945, v. 49, p. 655-658.

DESCRIPTORS: *Valence, Theory, *Catalysis, *Adsorption, Molecular association, Metals, Lattices, Bonding, Stresses, *Heat of reaction, Hydrogenation, Metallic crystals, Deformation.

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

61-20136

1. Title: Chemisorption
I. Balandin, A. A.
II. Eydus, Ya. T.

197048

Office of Technical Services

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

The Reciprocal Effect of Reacting Molecules Adsorbed on th the Surfaces of Dehydration Catalysts, by V. Ye. Vasserberg, A. A. Balandin, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXL, No 4, 1961, pp 859-862.

XX CB

8c1

May 62

196,516

Balandin, A. A., Levi, G. I., and Broude, Ye. L.
REACTIONS OF CYCLOHEXANOL IN CONTACT WITH ACTIVATED CHARCOAL. [1960] 12p.
Order from ATS $15.00 ATS-21M45R

Trans. of *Akad[emiya] Nauk SSSR. Otdel[eniye] Khim[icheskikh] Nauk. Izvest[iya] 1960, no. 4, p. 614-623.

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

61-12326

1. Cyclohexanols--Chemical reactions
2. Charcoal--Chemical effects
I. Balandin, A. A.
II. Levi, G. I.
III. Broude, Ye. L.
IV. ATS-21M45R
V. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

Balandin, A. A. and Kostin, F. K.
KINETIC STUDY OF DEHYDROGENATION OF CYCLOHEXANE. [1961] 2p. 14 refs.
Order from OTS or SLA $1.10 61-16644

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

DESCRIPTORS: *Dehydrogenation, *Cyclohexanes, Catalysts, Hydrocarbons, Benzenes, Reaction kinetics.

The catalytic dehydrogenation of cyclohexane was investigated over copper on chromium oxide, copper on chromium oxide with admixture of berium oxide and chromium oxide ex barium chromate. The influence of temperature upon the reaction rate was studied. Benzene is the predominating resulting product. Its yield at 330° is about 100%, 13% and 51% with the first, second and third catalysts, respectively. The conclusion is reached that on the active border lines of the (over)
(Chemistry--Physical, TT, v. 6, no. 8)

61-16644

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

Office of Technical Services

Balandin, A. A.
CATALYSIS AND THE CHANGE OF MOLECULAR FORM. [1961] 34p. 132 refs.
Order from OTS or SLA $3.60 61-16915

Trans. of Uspekhi Khimii (USSR) 1941, v. 10, p. 262-293.

DESCRIPTORS: *Catalysis, Molecular structure, Hydrocarbons, Dehydrogenation, Hydrogenation, *Molecular isomerism, *Benzenes.

An account of the researches in the application of catalysis to organic chemistry pursued by N. D. Zelinskii during 57 years up to 1941 is given, including investigations of some of his students. The investigations of his school are reviewed pertaining to the phenomenon of selective dehydrogenation leading to formation of aromatics from naphthenes at 300°C, but leaving unaffected those naphthenes which cannot be converted into (Chemistry--Organic, TT, v. 6, no. 8) (over)

61-16915

1. Title: Naphthene
I. Balandin, A. A.

Office of Technical Services

Slowing Down of Surface Reactions on Catalysts and the Mobility of Adsorbed Molecules, by V. Ye. Vasserberg, A. A. Balandin, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXL, No 5, 1961, pp 1110-1113.

CB

Sci

196,522

May 62

Dehydrogenation of Alcohols and Cyclohexanes on MnO, by A. A. Tolstopyatova, A. A. Balandin, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 5, 1960, pp 787-793.

[illegible]

Sci
May 62

194,610

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Investigation of Catalytic Conversions of Isopropanol and Cyclic Hydrocarbons of Titanium Dioxide (Anatase) by Means of a Differential Thermocouple, by A. A. Balandin, A. A. Tolstopyatova, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 12, 1960, pp 2096-2102.

CB

Sci
May 62

194,490

The Formation of Carbon Dendrites in the Decomposition of Alcohols on Nickel, by A. A. Balandin, A. P. Rudenko, G. Stegner, 6pp.

RUSSIAN, par, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 5, 1961, pp 862-770

CB

Sci

Mar 62

189,009

Determination of Relative Adsorption Coefficients by the Isotope Dilution Method, by G. V. Isagulyants, A. A. Balandin, E. I. Popov, 3 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIX, No 1, 1961, pp 139-141.

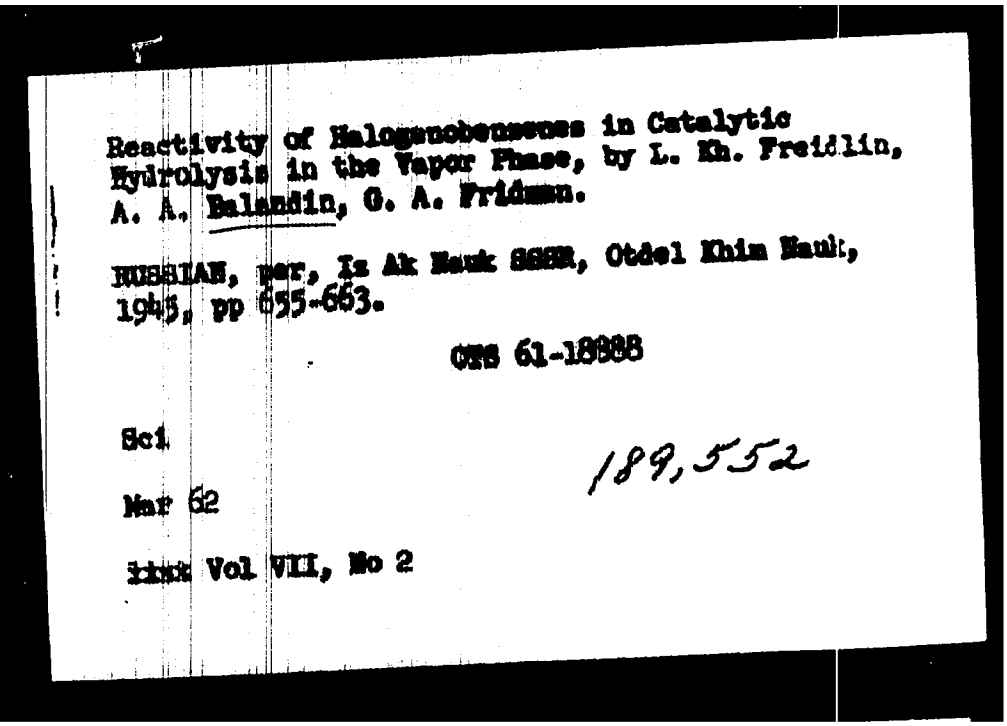
CB

190,303

Sci

Apr 62

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5



Reactivity of Halogenobenzenes in Catalytic Hydrolysis in the Vapor Phase, by L. Kh. Freidlin, A. A. Balandin, G. A. Fridman.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, 1945, pp 655-663.

OTS 61-18988

Sci

189,552

Mar 62

Vol VII, No 2

Catalytic Conversions of Some Alkyl Halides, by A. A. Balandin, A. I. Kukina, I. P. Beryshnikova, 6 pp.

RUSSIAN, per. Iz Ak Nauk SSSR, Otdel Khim Nauk, No 7, 1950, pp 1162-1169.

CB

165,862

Sol
Sep 61

Centenary of the Birth of Academician, by M. D. Zelinskiy, A. A. Balandin, 4 PP.

RUSSIAN, per, Zhur Fiz Khim, Vol. XXXV, No 3, 1961, pp 481-489.

Cleaver-Hume Press Ltd.

Sci

Feb 62

182,697

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Kinetics of the Dehydrogenation of Alcohols on Copper, by A. A. Balandin, P. Teteni, 6 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXXV, No 1, 1961, pp 62-71.

Cleaver-Hume Press

177,927

Sci

Dec 61

Balandin, A. A., Marushkin, M. N., and Afanas'ev, 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, Decomposition, *Carbon dioxide, *Alumina-nickel catalysts, Catalysis, 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 accounts for a 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. Afanas'ev, M. M.
IV. Title: Conversion...

Office of Technical Services

61-18349

Balandin, A. A. and Marukyan, G. M.
PRODUCTION OF α-METHYLSTYRENE BY CATALYTIC DEHYRDOGENATION OF ISOPROPYL-BENZENE.
[1961] 3p. 2 refs.
Order from OTS or SLA $1.10 61-18349

Trans. of [Akademiya Nauk SSSR]. Comptes Rendus (Doklady) de l'Academie des Sciences de l'U. R. S. S., 1945, v. 48, p. 482-483.

DESCRIPTORS: *Styrenes, *Methyl radicals, Synthesis, *Cumenes, Dehydrogenation, *Chromium compounds, *Oxides, Catalysts, Catalysis, Propyl radicals, Benzenes.

Catalytic dehydrogenation of isopropylbenzene to α-methylstyrene on catalysts such as promoted chromium oxide occurs at a higher rate than of ethylbenzene to styrene under comparable conditions. The yield (Chemistry--Organic, TT, v. 6, no. 10) (over)

I. Balandin, A. A.
II. Marukyan, G. M.

Office of Technical Services

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

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

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.

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)

61-18058

1. Balandin, A. A.

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

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5

Balandin, A. A., Marukyan, G. M., and Selmovich, R. G.
CATALYTIC DEHYDROGENATION OF p-CYMENE.
[1961] 4p. 15 refs.
Order from OTS or SLA $1.10 61-16920

Trans. of Akademiya Nauk SSSR. Compces Rendus (Doklady) de l'Academie des Sciences de l'U. R. S. S., 1948, v. 41, p. 71-73.

DESCRIPTORS: *Cymenes, Dehydrogenation, Catalysis.

Introduction of two methyl groups into the molecule of ethylbenzene, one attached to the ring and the other placed in the side chain in a-position, facilitates dehydrogenation. (Author)

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

61-16920

I. Balandin, A. A.
II. Marukyan, G. M.
III. Selmovich, R. G.

Office of Technical Services

Balandin, A. A. and Marushkin, M. N.
FORMATION OF OLEFINS FROM HIGHER PARAFFINS. [1961] 5p. 9 refs.
Order from OTS or SLA $1.10 61-16928

Trans. of Akademiya Nauk SSSR. Comptes Rendus (Doklady) de l'Academie des Sciences de l'U.R.S.S., 1943, v. 40, p. 254-256.

DESCRIPTORS: *Ethylenes, Synthesis, Hydrocarbons, Decomposition, Waxes, Catalysis.

In a preliminary study catalytic cracking of paraffin wax in the presence of a mixed chromium catalyst gave results showing that at 450-500° dehydrogenation to olefins definitely predominates over other reactions of paraffin wax hydrocarbons under the conditions used. (Author)

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

61-16928

I. Balandin, A. A.
II. Marushkin, M. N

Office of Technical Services

Balandin, A. A., Zelinskii, N. D. and others.
PREPARATION OF 1,3-BUTADIENE BY CATALYTIC DEHYDROGENATION OF 1-BUTENE. [1961] 9p.
15 refs.
Order from OTS or SLA $1.10 61-18011

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1941, v. 14, p. 435-445.

DESCRIPTORS: *Butadienes, Synthesis, *Butenes, Dehydrogenation, Catalysis.

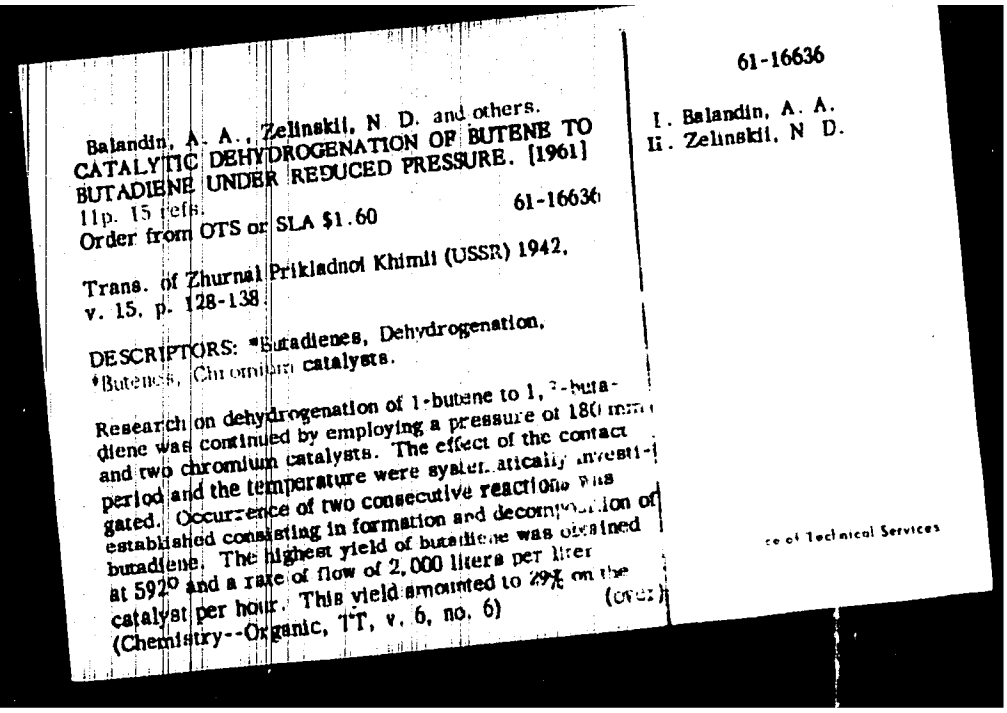
The catalytic dehydrogenation of 1-butene to 1,3-butadiene was investigated in the presence of carbon dioxide or nitrogen. The conditions were established under which butadiene is formed in yields of up to 34% on the passed, or 77% on the decomposed, butene. The reaction is carried out under atmospheric pressure, at 600°, with a contact period of 0.8 seconds and dilution of butene with carbon dioxide in the ratio of 1:7.5 by

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

61-18011

I. Balandin, A. A.
II. Zelinskii, N. D.

Office of Technical Services



Balandin, A. A., Zelinskii, N. D. and others.
CATALYTIC DEHYDROGENATION OF BUTENE TO BUTADIENE UNDER REDUCED PRESSURE. [1961]
11p. 15 refs.
Order from OTS or SLA $1.60 61-16636

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1942, v. 15, p. 128-138.

DESCRIPTORS: *Butadienes, Dehydrogenation, *Butenes, Chromium catalysts.

Research on dehydrogenation of 1-butene to 1,3-butadiene was continued by employing a pressure of 180 mm and two chromium catalysts. The effect of the contact period and the temperature were systematically investigated. Occurrence of two consecutive reactions was established consisting in formation and decomposition of butadiene. The highest yield of butadiene was obtained at 592° and a rate of flow of 2,000 liters per liter catalyst per hour. This yield amounted to 29% on the (over)

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

61-16636

I. Balandin, A. A.
II. Zelinskii, N. D.

ce of Technical Services

APPROVED FOR RELEASE: Thursday, August 15, 2002 CIA-RDP91-00772R000302010025-5