

2823. CHEMICAL COMPOSITION OF TAR FROM LOW TEMPERATURE CRACKING OF  
COKE OVEN GAS AND THE REACTING AND FURNACE MATERIALS

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000620020013-7

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CIA-RDP86-00513R000620020013-7"

FISHER, L.B.; KALECHITS, I.V.

Composition, separation, and utilization of pyridine tar bases.  
Trudy Vest.-Sib.fil.AN SSSR. no.3:72-78 '55. (MIRA 9:4)  
(Coal-tar products) (Pyridine)

KALECHITS, I.V.; STRAKHOVA, K.A.; SKVORTSOV, Yu.M.

Composition of the products of destructive hydrogenation of benzene  
in presence of high-temperature catalysts. Trudy Vost.-Sib.fil.AM  
SSSR, no.3:88-93 '55. (MIRA 9:4)  
(Benzene) (Hydrogenation)

KALECHITS, I.V.; KATKOVA, L.M.; BLINOV, V.N.

Mechanism of the hydrogenation of benzene over a nickel catalyst.  
Trudy Vest.-Sib.fil.AN SSSR no.3:94-98 '55. (MIRA 9:4)  
(Benzene) (Hydrogenation)

KALECHITS, I.V.; KATKOVA, L.M.

Chemism of hydrocarbon degradation in destructive hydrogenation.  
Trudy Vest.-Sib.fil.AN SSSR. no.3:99-104 '55. (MIRA 9:4)  
(Hydrocarbons) (Hydrogenation)

KALECHITS, I.V.; POPOVA, N.I.

Use of chromatographic adsorption analysis in the study of primary  
taric acids and of the products of their hydrogenation. Trudy Kom.anal.khim.  
6:97-121 '55. (MLRA 9:5)

1. Vostochno-Sibirskiy filial AM SSSR.

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RECORDED

The composition of the products of destruction by emanation of vapors over time at different temperatures.

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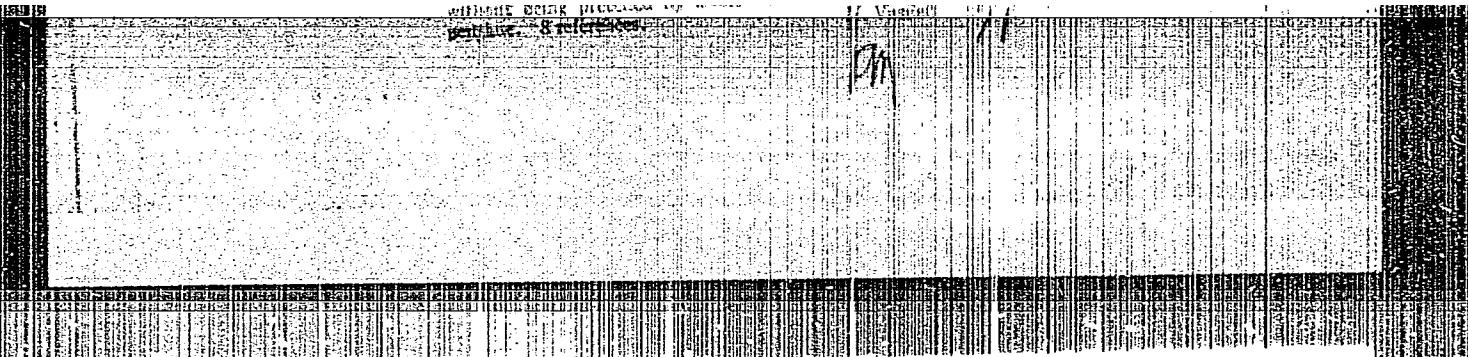
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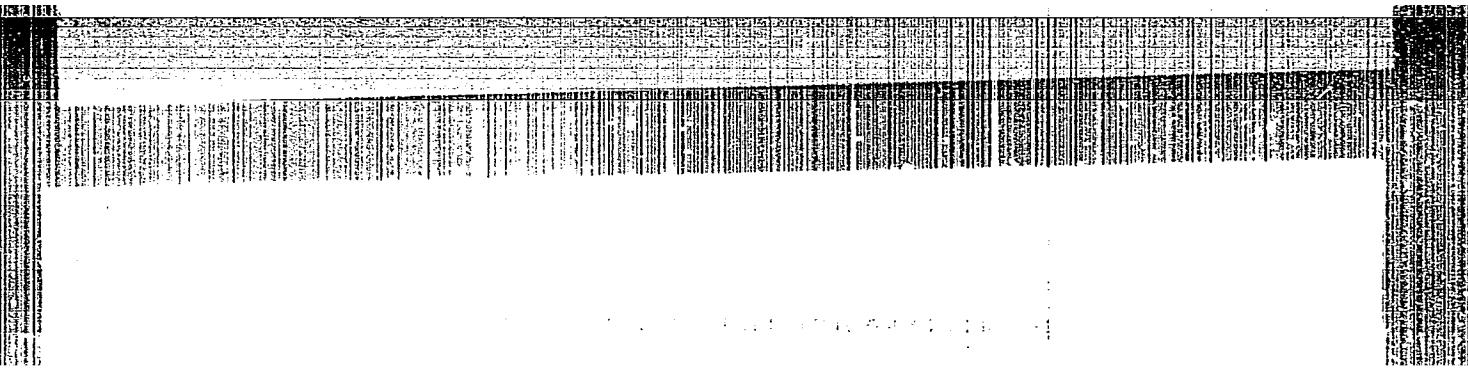
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Khalchits, L.

CHINA / Chemical Technology. Chemical Products and Their H  
Processing of Solid Fuel Minerals.

SOV/ 65-58-7-9/12

Investigations of Chinese Scientists in the Field of Destructive Hydrogenation of Fuels.

and 48 Chinese References.

ASSOCIATION: Vostochno-Sibirskiy filial AN SSSR (The East Siberian Branch of the Academy of Sciences of the USSR), and Otdeleniye tekhnicheskikh nauk AN Kitaya (The Department for Technical Sciences of the Chinese Academy of Sciences).

1. Fuels--Hydrogenation    2. Fuels--Test results    3. Scientific research--China

ZAYDMAN, N.M.; SHERGINA, N.I.; PEREVALOVA, N.G.; KALECHITS, I.V.

Use of spectrophotometric methods for the analysis of lower  
phenols of semicoke tars. Trudy kom. anal. khim. 8:243-251  
'58. (MIRA 11:8)

1. Vostochno-Sibirskiy filial Akademii nauk SSSR.  
(Cresol--Spectra) (Phenol--Spectra)

KALECHITE, I.V.; CHZHEN LU-BIN Cheng Lu-pin]; SYUY CHEN-DUN [Hsu Ch'eng-tung]

Hydrogenating, isomerizing and splitting activity of some catalysts  
used in destructive hydrogenation. Izv. Sib. otd. AN SSSR no.10:  
3-12 '58. (MIRA 11:12)

I. Vostochno-Sibirskiy filial AN SSSR, Institut nefti AN, Kitayskaya  
Narodnaya Respublika.  
(Hydrogenation) (Catalysts)

5 (0)

CHICON/31-58-15-6/13

AUTHOR: Ch'i, Tsu-wei (季子) and I. V. Kalechits

TITLE: The Mechanism of Formation of Lower Phenols Under Destructive Hydrogenation

PERIODICAL: K'o Hsüeh T'ung Pao, 1958, Nr 15, pp 472-473

ABSTRACT: Figure 1 shows the possible mechanism of destructive hydrogenation of three phenols; p-propyl phenol, 5-hydro indenol, and tetrahydro- $\beta$ -naphthol, as discovered by analyses of the products by both chemical and physical methods. Two rules were found by comparing results of destructive hydrogenations of 5-hydro-indenol and tetrahydro- $\beta$ -naphthol: (1) The weakest bond is C-C. (2) The para-position bond is weaker than the meta-position. An explanation based on an

5 (0)

CHICOM/31-58-15-B/13

AUTHOR: Yeh, Tsu-heng (叶叔衡) and I. V. Kalechits

TITLE: On the Transformation of Basic Nitrogenous Compounds Under Destructive Hydrogenation II. The Influence of Structure of Nitrogenous Compounds to Their Transformation

PERIODICAL: K'o Hsueh T'ung Pao, 1958, Nr 15, pp 474-475

ABSTRACT: In this article, the bond distance, the electronic displacements, and the hindrance effects are used to explain the experimental results shown in the table on p 474. The following statements are said to be proved: (1) The larger the electronic density of a bond, the shorter the bond, and the more the unsaturation of the bond. (2) Hindrance effects are obvious for 2-methyl quinoline. (3) Production of some structures.

5 (0)

CHICOM/31-58-15-9/13

AUTHOR: Chang, Yen-ch'ing (張, 毅) and I. V. Kalechits

TITLE: The Conversion of Some Six-Membered Naphthenes Under Platforming Conditions

PERIODICAL: K'o Hsüeh T'ung Pao, 1958, Nr 15, pp 475-476

ABSTRACT: Under 430-470 C, 20 atm, space velocity 2.0-15.0/hr, weight ratio of hydrogen to oil 6:1, and in the presence of a platinum catalyst, the conversion products of methylcyclohexane and cyclohexane are analyzed with results shown in Tables 1 and 2. The influence of reacting conditions on reforming are then investigated and briefly given. By graphical differentiation, the rate equations for aromatization, hydrocracking, and total conversion of the above mentioned

5 (0)

CHICOM/31-58-15-10/13

AUTHOR: Chang, Yen-ch'ing (張銀慶) and I. V. Kaleschits

TITLE: The Conversion of Some Five-Membered Naphthenes Under a Platforming Catalyst

PERIODICAL: K'o Hsueh T'ung Pao, 1958, Nr 15, pp 476-477

ABSTRACT: The analyses of the products from passing a 450-470 C, 20 atm, 6:1 mixture, hydrogen and methyl cyclopentane or dimethylcyclopentane, with space velocity of 1.0-6.0/hr over platinum reforming catalysts, are shown in Table 1 and 2. The influence of reacting conditions on reforming are then investigated and briefly stated. By graphical differentiation, the rate equations for aromatization, hydrocracking, and total conversion are determined.

5 (0)

CHICOM/31-58-15-11/13

AUTHOR: Chang, Yen-ch'ing (張學清), I. V. Kalechits

TITLE: Some Problems of Reaction Mechanism and Active Center of Platforming Catalyst

PERIODICAL: K'o Hsüeh T'ung Pao, 1958, Nr 15, pp 477-478

ABSTRACT: Using Pt-Al<sub>2</sub>O<sub>3</sub>, HF-Al<sub>2</sub>O<sub>3</sub>, or Pt-HF-Al<sub>2</sub>O<sub>3</sub> as a catalyst, Table 1 shows results of platforming of methylcyclopentane and its various possible intermediates to aromatic hydrocarbons conducted under 430 C, 20 atm, space velocity 3.0 and molecular ratio of hydrogen to oil equal to 6:1. It can be seen that dehydrogenation is catalyzed by Pt-Al<sub>2</sub>O<sub>3</sub>, isomerization is catalyzed by HF-Al<sub>2</sub>O<sub>3</sub>, while the catalyst HF-Pt-Al<sub>2</sub>O<sub>3</sub> can catalyze both dehydrogenation and isomerization.

TSZYAN BIN-NAN' [Chiang Ping-nan]; VEY SHI-PIN[Wei Shih-p'ing]; LIN LI-U  
[Ling Li-wu]; CHZHOU FYH-LEN; KALECHITS, I.V.

Hydrogenation of shale tars on fixed-bed catalysts. Izv.Sib.otd.  
AN SSSR no.2:81-96 '59.. (MIHA 12:7)

1. Institut nefti AN Kitaya.  
(Tar) (Hydrogenation) (Catalysis)

KALECHITS, I.V.; SIDOROV, R.I.

Materials balance sheets of the liquid-phase hydrogenation of  
the tar of Cheremkhovo coal. Trudy Vost.-Sib.fil,AN SSSR no.18:  
42-48 '59. (MIRA 12:10)  
(Coal-tar products)

KALECHITS, I.V.; OKIADNIKOVA, Z.A.

Chemistry of the conversion of the high-molecular weight part  
of semicoke tar under conditions of destructive hydrogenation.  
Trudy Vost.-Sib.fil.AN SSSR no.18:49-63 '59. (MIRA 12:10)  
(Coal-tar products)

KALECHITS, I.V.; PAVLOVA, K.A.; SAMOYLOV, S.M.

Effect of the recrystallization of the  $WS_2$  catalyst on its hydro-  
genating and isomerizing activities. Trudy Vest.-Sib.fil.AN  
SSSR no.18:81-86 '59. (MIRA 12:10)  
(Tungsten sulfide)

SALIMGAREYeva, F.G.; DAVIDOVICH,B.V.; IVANOVA, M.F.; KALECHITS, I.V.

Hydrogenation of narrow fractions of phenols from tars of  
Cheremkhovo coals over an iron catalyst. Trudy Vost.-Sib.fil.  
AN SSSR no.18:87-94 '59. (MIRA 12:10)  
(Phenols)

TSZYAN Bin-Nan' [Chiang Ping-nan]; LIN LI-U [Ling Li-wu]; CHZHOU FYN-LEN;  
KALECHITS, I.V.

One-step destructive hydrogenation of crude Mowming shale tar  
over a stationary catalyst. Trudy Vost.-Sib.fil.AN SSSR no.18:  
107-129 '59.  
(Tar) (Catalysts)

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S/081/60/000/016/002/012  
A006/A001

5.1190 also 2209

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 16, p. 72, # 64645

AUTHORS: Kalechits, I.V., Sun-Yun-zhuey, Go Chu, Van Ke-in

[Annotation: Correctly : Sung Yung-Shui, K'uo Ch'u, Wang K'e-Ying]

TITLE: On the Physical and Catalytical Properties of Molybdenum-Alumosilicate Catalysts. Information 1. On the Effect of Preparation Methods on the Hydrogenating Activity of Molybdenum-Alumosilicate Catalysts. Information 2. The Dependence of Physico-Chemical Properties of Catalysts on the Alumogel-Silicogel Ratio in the Car-

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A006/A001

On the Physical and Catalytical Properties of Molybdenum-Alumosilicate Catalysts.  
Information 1. On the Effect of Preparation Methods on the Hydrogenating Activity  
of Molybdenum-Alumosilicate Catalysts. Information 2. The Dependence of Physico-  
Chemical Properties of Catalysts on the Alumogel-Silicagel Ratio in the Carrier.  
Information 3. On the Effect of the Alumogel-Silicagel Ratio on the Hydrogenating  
Activity of Molybdenum-Alumosilicate Catalysts. Information 4. On the Effect of  
the Carrier Composition on the Isomerizing Activity of Molybdenum-Alumosilicate  
Catalysts.

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the Carrier Composition on the Isomerizing Activity of Molybdenum-Alumosilicate  
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A006/A001

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Second ... .

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S/081/50/000/016/002/012  
A006/A001

On the Physical and Catalytical Properties of Molybdenum-Alumosilicate Catalysts.  
Information 1. On the Effect of Preparation Methods on the Hydrogenating Activity  
of Molybdenum-Alumosilicate Catalysts. Information 2. The Dependence of Physico-  
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Information 3. On the Effect of the Alumogel-Silicagel Ratio on the Hydrogenating  
Activity of Molybdenum-Alumosilicate Catalysts. Information 4. On the Effect of  
the Carrier Composition on the Isomerizing Activity of Molybdenum-Alumosilicate  
Catalysts.

KALECHITS, I.V.; SI TSZU-VEY, [Hei Tsu-Wei]; SALIMGAREYEVA, F.G.

Transformations of some individual phenols under conditions  
of destructive hydrogenation. Trudy Vost.-Sib.fl.AN SSSR  
no.26:45-62 '59. (MIRA 13:6)  
(Phenols) (Hydrogenation)

KALECHITS, I.V., IN' YUAN'-GEN' [Yin Yuan-ken]

Activity versus selectivity of hydrofining catalysts.  
Trudy Vost.-Sib.fl.AN SSSR no.26;108-120 '59. (MIRA 13:6)  
(Catalysts) (Hydrogenation)

KALECHITS, I.V., IN' YUAN'-GEN' [Yin Yuan-ken]

Effects of additives in the reaction mixture and in the hydrofining catalysts on the activity and selectivity of the latter. Trudy Vost.-Sib.fl. AN SSSR no.26:121-127 '59.

(MIRA 13:6)

(Catalysts) (Hydrogenation)

KALECHITS, I. V.

000751/000751/000751  
001/002

P. Kurnikova, A. S. Tikhonovich, I. V.

IR Spectra of Phenolic Compounds

J. Polym. Vol. 25, No. 5, pp 235-237

In the spectral effects produced by introduction of the phenolic compound (3), phenolic compounds have been investigated in addition to such substances as carbon tetrachloride and dichloroethane, of phenolic compounds chlorobenzene. The spectrum of phenol is also being studied with hydrazine, liquid air cooled, the solvent for measurement 0.15 to 1.05 ml. The result is made of quartz and with a glass of 1 cm. The measurement is shown in Figure 1. A similar method was used to determine the phenol which had been dissolved in benzene and to which with hydrazine added, so measured them. The relationships are given below:

After than that in the order of magnitude of phenol can be predicted by the formula. Table 1 shows the physical constants of compounds applied. Table 2 shows the peak height of the 31 phenolic compounds as the displacement effect of the introduced various substances. The absorption curves of some phenolic compounds, Table 3, are absorption curves of various phenols of various artificial mixtures. There are: American, 11, Russian, 5 German, 1 Chinese.

PAGE 1 BOOK EXPENDITURE 507/321

Kalechits, I.V.

Institute Fizicheskoy Khimii  
[6] 101 Marks, I. Fizicheskaya Khimiya Metallov, [vol. 1]. 10. Physics and Metallurgy, Moscow, Izd. Akad. Nauk, 1960. 461 p. Kratko  
perly printed.  
responding Member of the Academy of Sciences USSR,  
the Institute of Chemistry, 24, of Publishing House: A.I.  
A. Astan'eva.  
An article is addressed to physiciasts and chemists  
interested in general interest in recent  
and physical chemistry of catalysis.

|  |     |
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| Collection were read at the conference on the<br>Chemical Sciences, Academy of Sciences USSR) and by<br>the problem of the scientific bases for the selection<br>of new materials for the production of catalysts<br>of Chemistry, or the USSR) in Moscow, March 20-23, 1959.<br>Several prepared at the conference, only papers<br>included in this collection. | 102 |
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| Relation Between the Parameters<br>and Platinum Catalysts  | 119 |
| A.M. Yermolov [Institute of Physics of Physical<br>Chemistry of the Moscow Institute of the Science of<br>Catalysis]   | 120 |

KALECHITS, I.V.

Selection of high temperature sulfide catalysts for various cases of  
destructive hydrogenation. Probl. kin. i kat. 10:121-127 '60.  
(MIRA 14:5)

1. Vostochno-Sibirskiy filial AN SSSR.  
(Hydrogenation) (Catalysts) (Sulfides)

AUTHOR: Kalechits, I. V., Sung, Yung-jui (1345/3057/3843); Kuo, Ch'u  
(6753/4342); and Wang, K'o-ying (3769/0344/3841) C/081/60/005/001/001/004  
F031/F004

TITLE: Physical and catalytic properties of  $\text{MoS}_2\text{-SiO}_2\text{-Al}_2\text{O}_3$  catalysts.  
I. Preparation of  $\text{MoS}_2\text{-SiO}_2\text{-Al}_2\text{O}_3$  catalysts and effects of the  
catalysts on hydrogenation activity

PERIODICAL: Jan Liao Hsieh Pao, v. 5, no. 1, 1960, 1-6

C/081/60/005/001/001/004  
F031/F004

Physical and catalytic properties ...

10 hrs, add 2.3 N NH<sub>4</sub>OH and agitate for 11 hrs., then filter and dry, and calcine for activeness. 2. Preparation of Si-Al carrier by the coprecipitation method. Add 800 ml aluminum sulphate (15 gm Al<sub>2</sub>O<sub>3</sub>/l) to 1.3 l waterglass (100 gm SiO<sub>2</sub>/l), macerate at 50-60° in ammonium chloride four times and in aluminum sulphate four times, then filter and dry, and calcine. 3. Preparation of Si-Al carrier by the composite method. Add water glass (165 gm SiO<sub>2</sub>/l) to 1.5 N HNO<sub>3</sub> solution at 15° for mixture for 20 hrs, macerate four times in 5% NH<sub>4</sub>NO<sub>3</sub>, and in water

Physical and catalytic properties ...

C/081/60/005/001/001/004  
F031/F004

catalysts and the physical structure of catalysts and carriers. The mean radius of pores was calculated by formula  $r = \frac{2v}{s} \times 10^4$  where r is the average diameter of pore, v volume of pore, s the surface area. 6. The hydrogenation activity of catalysts: The experiment was under conditions of 420° temperature, 200 atm pressure, 3/hr fluid speed, 8:1 hydrogen-benzene ratio and  $\pm 0.0003$  refraction rate of samples. Chromatographic method was used for the determination of benzene content and the conversion rate of benzene. Results show that activity ...

Physical and catalytic properties ...

C/081/60/005/001/001/004  
F031/F004

Colloid Science, Z, 399 (1947). Linstead, R. P., Thomas, S. L. S. J. Chem. Soc. 1127, (1940). Anderson, R. B., McCartney, J. T. Hall, W. K. & Hofer, L. J. E., Ind. Eng. Chem. 39, 1618 (1947)

ASSOCIATION: Chung Kuo K'o Hsileh Yilan Shih Yu Yen Chiu So (Petroleum Institute, Chinese Academy of Sciences)

SUBMITTED: July 25, 1959

S/081/60/000/024/003/016  
A005/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 24, p. 76, # 95733

AUTHORS: Kalechits, I.V., Sung Yung-jui, Go Chu, Van Ke-in

TITLE: On the Physical and Catalytical Properties of Molybdenum-Alumino-silicate Catalysts. 2-nd Report. The Dependence of the Physico-chemical Properties of Catalysts on the Alumogel- Silica Gel - Ratio in the Carrier

PERIODICAL: Taiwan Hsueh Ranliao xuebao. Acta focalia sinica. 1960. Vol. 5 No. 1 pp. 7-15

S/081/60/000/024/003/016  
A005/A001

On the Physical and Catalytical Properties of Molybdenum-Aluminosilicate Catalysts.  
2-nd Report. The Dependence of the Physicochemical Properties of Catalysts on the  
Alumogel - Silica Gel - Ratio in the Carrier

the surface acidity change, which, however, does not conform to the splitting ac-  
tivity change. The interaction causes also the appearance of new big pores in  
the carrier and the change of its phase composition, i.e., the formation of a new  
phase similar to  $\alpha$ - $\text{SiO}_2$ . On the basis of the changes in the physicochemical  
properties in consequence of the application of  $\text{MoS}_2$  to alumsilicates, one can  
conclude that the interaction of  $\text{MoS}_2$  with the carrier componen-

88256

S/076/60/034/012/005/027  
B020/B067

54300

AUTHORS: Kalechits, I. V. and In' Yuan'-gen' (Irkutsk)

TITLE: Kinetics of Olefin Hydrogenation Over a Cobalt -  
Alumomolybdate Catalyst

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 12,  
pp. 2687-2693

TEXT: The cobalt alumomolybdate catalyst used contained 0.8% Co,  
and was used in the device for pressure hydrogenation consisted of ✓

88256

Kinetics of Olefin Hydrogenation Over a  
Cobalt - Alumomolybdate CatalystS/076/60/034/012/005/027  
B020/B067

chromatographically from raw material II. The refractive index of the hydrolyzate was experimentally determined with an accuracy of 0.00001. The experiments were made with a catalyst having a grain size of 29-35 mesh. The results are given in Table 1. The data obtained were used to determine the kinetic differential equation. The authors give an example for calculating the equation from the data given in Table 1 at 250°, which has the following form:  $v_u = kp_u^{\alpha} p_s^{\beta} p_H^{\gamma}$ .  $p_u$ ,  $p_s$ , and  $p_H$  are the partial pressures of the olefins, paraffins, and of hydrogen,  $k$  is the constant of the reaction rate, and  $\alpha$ ,  $\beta$  and  $\gamma$  are the exponents.

KALECHITS, I. V., Dr. Chem. Sci. (dies) "Investigation in Field  
of Chemistry of Destructive Hydrogenation of Fuels." Irkutsk, 1951,  
49 pp. (Moscow Instit. of Precise Chemical Technology im M. V.  
Lomonosov) 300 copies (KL Supp 12-61, 254).

KALECHITS, I.V.; SALIMGAREYEVA, F.G.; IVANOVA, M.F.; TRZHTSINSKAYA, P.V.

Chemistry of the transformation of esters in liquid phase hydrogenation. Izv.Sib.otd. AN SSSR no.1:44-51 '61. (MIRA 14:2)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AI SSSR,  
(Hydrogenation) (Esters)

SALIMGAREYEVA, F.G.; IVANOVA, M.F.; TRZHTSINSKAYA, B.V.; KALECHITS, I.V.

Transformations of carbonyl compounds in destructive hydrogenation.  
Izv.Sib.odt.AN SSSR no.5:115-117 '61. (MIRA 14:6)

1. Irkutskiy Institut organicheskoy khimii Sibirskogo otdeleniya  
AN SSSR.

(Carbonyl compounds) (Hydrogenation)

KALECHITS, I.V.; PAVLOVA, K.A.

Composition of products of toluene destructive hydrogenation  
in the presence of high temperature catalysts. Trudy Vost.-Sib.  
fil. AN SSSR no. 38:15-18 '61. (MIRA 15:4)  
(Toluene) (Hydrogenation) (Catalysts)

PAVLOVA, K.A.; KALECHITS, I.V.

Composition of products of c- and m-xylene destructive hydrogenation  
in the presence of tungsten sulfide. Trudy Vost.-Sib.fil.AN SSSR  
no.38:19-24 '61. (MIRA 15:4)  
(Xylene) (Hydrogenation) (Tungsten sulfides)

KALIBERDO, L.M.; KALECHITS, I.V.

Chemical mechanism of hydrocarbon cracking in destructive  
hydrogenation. Report No.3. Trudy Vost.-Sib.fil.AM SSSR  
no.38:25-30 61. (MIRA 15:4)  
(Hydrocarbons) (Hydrogenation)

33602  
S/678/61/000/038/001/009  
A057/A126

11.0160

AUTHORS: Kalechits, L.V., Pavlova, K.A., Kalibero, L.M., Skvortsova,  
G.G., Bogdanova, T.A., Sidorov, R.I., Trotsenko, Z.P.

TITLE: On the chemistry of transformations of bi-cyclic hydrocarbons  
under conditions of destructive hydrogenation

PERIODICAL: Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya  
khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromatiches-  
kikh uglevodo rodov v protsesse destruktivnoy hidrogenizatsii..

33602

S/678/61/000/038/001/009

A057/A126

On the chemism of .....

ory, and schemes for transformations of bi-cyclic hydrocarbons in vapor- and liquid-phase processes presented. In the present paper a discussion is presented of the problem of transformations of polycyclic hydrocarbons with a review of appropriate literature data. Among the problems to be solved is the question, whether a direct splitting of the ring is possible in hydrocarbons of the tetralin, tetrahydroanthracene, etc. type, or whether isomerization occurs before and which bonds and by what reasons are most easily split. This and related problems were investigated before. Experiments were carried out at 470°C 450 atm. 3 h and 10% catalyst. ✓

33604  
S/678/61/000/038/003/009  
A057/A126

5.3300

AUTHORS: Pavlova, K.A., Kalechits, I.V.

TITLE: Destructive hydrogenation of methyl naphthalenes in the presence of a WS<sub>2</sub> catalyst

PERIODICAL: Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromaticheskikh uglevodorodov v protsesse destruktivnoy hidrogenizatsii. 61 - 67

33604

Destructive hydrogenation .....

S/678/61/000/038/003/009  
A057/A126

were carried out with each hydrocarbon and only a low content of high hydrocarbons observed in the products. Prevalent in the methane-naphthenic fraction are isomerized hydrocarbons of the series of bicyclo-(0,3,3)-octane, and bicyclo-(0,3,4)-nonane. By an exhaustive dehydrogenation of the aromatic fraction of the methyl naphthalene hydrogenation product the present authors determined that hydrogen addition occurs quicker in the non-substituted ring. Hence the same regularities were observed as with other catalysts. Thus the obtained results demonstrate that the introduction of a methyl substitute accelerates hydrogenation, isomerization and enolization.

33604

Destructive hydrogenation.....

S/678/61/000/038/003/009  
A057/A126

bond between tertiary and secondary atoms, but with a strong favorable forma-  
tion of a secondary ion. There are 5 tables and 1 figure.

11.0132

33609

S/678/61/000/038/009/009

A057/A126

AUTHORS:

Kalechits, I.V., Okladnikova, Z.A., Nikolayeva, D.Kh.

TITLE:

On the problem of relative hydrogenation rates of polycyclic aromatic hydrocarbons

PERIODICAL:

Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromaticheskikh uglevodorodov v protsesse destruktivnoy hidrogenizatsii. 112 - 124

KALIBERDO, L.M.; KALECHITS, I.V.

Consecutive reactions in gasoline recovery process. Trudy Vost.-  
Sib.fil.AN SSSR no.38:152-154 '61. (MIRA 1514)  
(Cyclohexane) (Hydrogenation)

11.0132

33493  
S/195/61/002/005/018/027  
E030/E485

AUTHORS: Kalechits, I.V., Lipovich, V.G., Vykhovanets, V.V.,  
Petrova, V.N.

TITLE: Isotopic investigation on the mechanism of benzol,  
cyclohexane and methylcyclopentane conversions in  
destructive hydrogenation

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 748-753

TEXT: Destructive hydrogenation has been studied at 420°C and  
350 atm on a WS<sub>2</sub> industrial high-temperature catalyst in order to  
elucidate the sequence and relationship between isomerization and

Isotopic investigation on ...

33493  
S/195/61/002/005/018/027  
E030/E485

the conversions required. After cooling, the hydrogenate was separated from the benzol by chromatography and then distilled on a 60-plate column. Both the yields and activities of catalysts were measured. In all experiments, there was a good linear relation between the activity of the fragmentation products and the methylcyclopentane yield; this indicates that hydrogenation proceeds faster than either isomerization or fragmentation. To show which of the two latter processes were more important, six experiments were carried out with no methylcyclopentane in the feedstock. It was found that the

Isotopic investigation on ...

33493  
S/195/61/002/005/018/027  
E030/E485

acidic) but only one, and the molecules move over several sites. The reactions of hydrogenation and the reverse reactions are therefore best described, not in terms of rupture of the benzol nucleus but in terms of a complex formation, involving proton-transfer from the  $\pi$ -complex of the ring. There are 1 figure, 2 tables and 10 references: 8 Soviet-bloc and 2 non-Soviet-bloc. The references to English language publications read as follows: Ref.9: F.G.Ciapetta, R.M.Dobres, R.W.Baker. Catalysis, ed. P.H.Emmett, v.6, 1958, 495; Ref.10: F.E.Condon, Catalysis, ed. P.H.Emmett, v.6, 1958, 118.

TSYAN BIN-NAN<sup>1</sup> [Chiang Ping-nan]; VEY SHI-PIN [Wei Shih-p'ing]; GUAN CHZHE;  
KALECHITS, I.V.

Hydrofining of crude shale tar on fixed-bed catalysts at reduced  
pressures. Khim.i tekhn. topl.i masel t no.2:21-24 F '61.

(MIRA 14:1)

1. Institut nefti AN Kitayskoy Narodnoy Respublik i Institut khimii  
Vostochno-Sibirsogo filiala Sibirskogo otdeleniya AN SSSR.  
(China—Oil shale) (China—Coal-tar products)

S/076/61/035/003/002/023  
B121/B203

AUTHORS: Kalechits, I. V. and In' Yuan'-gen'

TITLE: Kinetics of simultaneous olefin hydrogenation and hydro-  
genating ring cleavage of thiophene on a cobalt-aluminum-  
molybdenum catalyst

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 3, 1961, 501-508

TEXT: The authors studied the kinetics of simultaneous hydrogenation of  
heptane-heptene mixtures and thiophene hydrogenolysis on a  $\text{CoMoO}_4\text{-Al}_2\text{O}_3$  cata-  
lyst under different reaction conditions. The proportion of hydro-

Kinetics of ...

S/076/61/035/003/002/023  
B121/B203

$$v_o = 1.42 \cdot 10^{-4} p_o^{0.61} p_{H_2}^{0.87} / p_t^{0.23} p_n^{0.68} (250^\circ); \quad (6)$$

$$v_t = 1.05 \cdot 10^{-3} p_t^{1.63} p_{H_2}^{0.92} / p_o^{1.03} p_n^{1.06} (250^\circ); \quad (7)$$

$$v_o = 2.67 \cdot 10^{-3} p_o^{1.00} p_{H_2}^{0.94} / p_t^{0.21} p_n^{0.61} (375^\circ); \quad (8)$$

$$v_t = 2.3 \cdot 10^{-2} p_t^{0.64} p_{H_2}^{0.29} / p_n^{0.93} (375^\circ). \quad (9)$$

for the olefin hydrogenation rate  $v_o$ , and for the thiophene hydrogenolysis rate  $v_t$ , respectively. Temperatures are given in  $^\circ\text{C}$ ,  $p_H$  denotes the partial pressure of the resulting saturated hydrocarbon. These equations show that thiophene influences olefin hydrogenation, and that olefins affect thiophene hydrogenolysis. The effect of temperature on olefin hydrogenation and

Kinetics of ...

S/076/61/035/003/002/023  
B121/B203

of thiophene, it is more probable that olefins react with molecular hydrogen than with chemisorbed hydrogen. The activation energy of hydrogenation in the temperature range of 200-475°C is 14.5 kcal/mole, that of hydrogenolysis is 17.5 kcal/mole. There are 1 figure, 4 tables, and 10 references: 2 Soviet-bloc and 8 non-Soviet-bloc. The four most recent references to English-language publications read as follows: W. A. Wilson, W. F. Voreck, R. N. Malo, Industr. and Engng. Chem., 49, 657, 1957; F. W. Kirsch, H. Heineman, D. H. Stevenson, Industr. and Engng. Chem., 49, 646, 1957; S. Weller, J. Amer Inst. Chem. Engrs., 2, 59, 1956; T. Kwan, J. Phys. Chem., 60, 1033, 1956.

KALECHITS, I.V.; OKLADNIKOVA, Z.A.; NIKOLAYEVA, D.Kh.

Relative hydrogenation rates of polycyclic aromatic hydrocarbons.  
Trudy Vost.-Sib.fil. AN SSSR no.38:112-124 '61. (MIRA 15:4)  
(Hydrocarbons) (Hydrogenation)

KALECHINS, I.V.; LIPOVICH, V.G.; VYKHOVANETS, V.V.

Mechanism of the destructive hydrogenation of benzene studied  
by means of tagged atoms. Trudy Vost.-Sib.fil.AN SSSR no.38:5-14  
'61. (MIRA 15:4)  
(Benzene) (Hydrogenation) (Carbon—Isotopes)

ACCESSION NR: AT4010611

S/3051/63/000/000/0166/0170

AUTHOR: Nakhmanovich, A. S.; Kalachits, I. V.

TITLE: Hydrogenation of polycyclic hydrocarbons and heterocyclic compounds over a platinum catalysts in the liquid phase

SOURCE: Kataliticheskiye reaktsii v zhidkoy faze. Trudy Vsesoyuznoy konferentsii. Alma-Ata, 1963, 166-170

TOPIC TAGS: hydrogenation, catalytic hydrogenation, polycyclic hydrocarbon hydrogenation, heterocyclic ring hydrogenation, Adams platinum, catalytic hydrogenation

ACCESSION NR: AT4010611

hydrogenation in glacial acetic acid and decalin was compared and the latter was found to be strongly inhibitory, especially for the hydrogenation of naphthalene, anthracene and biphenyl. This is due to the fact that the decalin takes up a significant proportion of the active surface of the catalyst. Orig. art. has: 2 tables.

ASSOCIATION: Institut neftey i ugolekhimicheskogo sinteza Sibirs<sup>kogo</sup> otdeleniya  
AN SSSR (Institute of Petroleum and Organic Chemical Synthesis, Siberian Section,  
AN SSSR)

SUBMITTED: 00

DATE ACQ: 25Jan64

COAL Not ORGANIC ENCL: 00

KALECHITS, I.V.; NAKHMANOVICH, A.S.; KAZANTSEVA, V.M.

Influence of the bond multiplicity on the hydrogenation  
kinetics of polycyclic hydrocarbons. Kin. i kat. 4 no.3:  
395-403 My-Je '63. (MIRA 16:7)

1. Institut nefte- i uglekhimicheskogo sinteza Sibirskego  
otdeleniya AN SSSR.  
(Hydrocarbons) (Hydrogenation)  
(Chemical bonds)

KALECHITS, I.V.; NAKHMANOVICH, A.S.

Hydrogenation kinetics of polycyclic hydrocarbons. Dokl.AN  
SSSR 148 no.4:835-838 F '63. (MIRA 16:4)

1. Institut nefte- i uglekhimicheskogo sinteza Sibir'skogo  
otdeleniya AN SSSR. Predstavлено akademikom A.A.Balandinym.  
(Hydrocarbons) (Hydrogenation)

BOGDANOVA, T.A.; MORZHEY, V.V.; KALECHITS, I.V.

Mutual transformations of stereoisomeric 1,3-dimethylcyclopentanes  
in analytical dehydrogenation. Dokl. AN SSSR 159 no.2:361-364  
N '64. (MIRA 17:12)

1. Predstavлено академиком Б.А. Казанским.

TRZHTSINSKAYA, B.V.; KALECHITS, I.V.

Chemical mechanism of alkyl phenyl ether conversions under high pressures and at high temperatures. Kin. i kat. 6 no.2:346-350 Mr-Ap '65.  
(MIRA 18:7)

1. Institut ugle- i neftakhimicheskogo sinteza, gorod Angarsk.

PAVLOVA, K.A.; PANTELEYEVA, B.D.; DERYAGINA, E.N.; KALECHITS, I.V.

Effect of nonstoichiometric sulfur on the activity of sulfide catalysts. Kin. i kat. (6 no. 34493-498 My-Je '65.

(MIRA 18:10)

1. Institut nefte- i uglekhimicheskogo sintesa, Angarsk.

VYKHOVANETS, V.V.; CHENETS, V.V.; KNUTOV, V.I.; KALECHITS, I.V.

Methods of the determination of the mark position in six-membered rings. Izv. vys. ucheb. zav.; khim. i khim. tekhn. 8 no.3:432-434 '65. (MIRA 18:10)

1. Irkutskiy gosudarstvennyy universitet imeni Zhdanova, kafedra organicheskoy khimii.

VYKHOVANETS, V.V.; LIPOVICH, V.G.; KNUTOV, V.I.; CHENETS, V.V.; BLYUM, O.I.;  
KALECHITS, I.V.

Syntheses of methylcyclohexanes labeled with carbon-<sup>14</sup> in  
positions 1,2,3,4, and 7. Zhur. VKHO 10 no.4:465-466 '65.  
(MIRA 18:11)

1. Institut nefte- i uglekhimicheskogo sinteza.

SAKOVICH, F.I., kand.tekhn.nauk; KALECHITS, N.P.

Utilization of drained lands in White Russia. Zemledelie 25  
no.5:ll-16 My '63. (MIRA 16:7)

1. Belorusskiy nauchno-issledovatel'skiy institut melioratsii i  
vodnogo khozyaystva (for Sakovich). 2. Direktor Minskogo  
eksperimental'nogo khozyaystva Belorusskogo nauchno-issledova-  
tel'skogo instituta melioratsii i vodnogo khozyaystva (for  
Kalechits).

'Minsk Province—Peat bogs) (Minsk Province---Drainage)

KATENKOV, R.V.

Massograms for determining the equivalent content of uranium  
in analyses of nonequiponderant ores. Received. i okt. nedor 31  
no.1:54-57 Ja '65. (MIRA 38:3)

1. FIGURE.

KALECHITS, S.

Training in a work brigade. Prof.-tekhn.oibr. 17 no.6:10-11 Je '60.  
(MIRA 13:?)

1. Zamestitel' direktora po uchebno-prizvodstvennoy chasti  
stroitel'nogo uchilishcha No.25, Minsk.  
(Building trades--Study and teaching)  
(Education, Cooperative)

KALECHITS, Sergey Nikolayevich; SERIN, V.A., nauchnyy red.; MIKHAI'CHUK,  
Z.V., red.; DORODNOVA, L.A., tekhn.red.

[Methods manual for instructors in special training at building  
and trade schools for plasterers] Metodicheskoe posobie pre-  
podavateliam spetsial'noi tekhnologii pri podgotovke v stroitel'-  
nykh i remeslennykh uchilishchakh shtukaturov. Moskva, Vses.  
uchebno-pedagog.izd-vo Proftekhizdat, 1960. 116 p.

(MIRA 14:6)

(Plastering—Study and teaching)

MARTINKEVICH, F.S., kand.geograf.nauk; SOBOLEV, Ye.Ya., kand.geograf.nauk;  
BOL'SHAKOVA, V.P., kand.ekonom.nauk; LAPETA, D.D., kand.ekonom.  
nauk; GLADKIY, V.I., kand.geograf.nauk. starshiy prepodavatel';  
ANICHENKO, G.V., kand.geograf.nauk; KOTT, G.Z.; TRUBILKO, N.P.,  
kand.ekonom.nauk; KOROLENKO, I.K., kand.ekonom.nauk; GUTSEV, Ye.G.,  
kand.geograf.nauk; CHERENKO, V.A.; CHERBYSH, I.P.. Prinimali  
uchastiye: KOZLOVA, A.I.; KOVALEVSKIY, P.V.; MAZURENKO, R.V.;  
KUVEYSHA, Ye.I.; KRYLOVA, V.S.; SERZHINSKIY, I.I.; KUBKINA, Z.A.;  
KALECHITS, T.A.; ROMANOVSKIY, N.T., red.; KOSTEVICH, K.R., red.;  
TURTSEVICH, L., red.izd-va; SIDERKO, N., tekhn.red.

[Distribution of the industry of White Russia for the processing  
of agricultural raw materials] Raumeshchenie promyshlennosti BSSR  
na pererabotku sel'skokhozisistvennogo syr'ia. Minsk, 1959. 193 p.

KALECHITS', V.V., [Kalechyt's', V.V.], inzh.

Broad prospects. Nauka i zhyttia 8 no.8:9-13 Ag '58.  
(MIRA 12:1)

1. Glavnnyy spetsialist Otdela khimicheskoy promyshlennosti  
Gosplana Soveta Ministrov USSR.  
(Synthetic products)

PHASE I BOOK EXPLOITATION

SOV/4870

Arnol'dov, Ye. M., T.T. Honta, V.V. Kalechits', O.I. Mikitenko, Ya. M. Meytin,  
O.M. Murzin, D.M. Savych, V.D. Tomashchuk, A.M. Shvans'kyy

Khimichna promyslovist' Ukrayiny (Chemical Industry of the Ukraine) [Kyyiv,  
Derzh. vyd-vo tekhn. lit-ry URSR] 1960. 128 p. 2,000 copies printed.  
(Series: Do dekady ukrayins'koyi literatury ta mystetstva v Moskvi)

Ed.: A.I. Rukavyshnykov; Ed. (Inside Book): L. Raytburd; Tech. Ed.: L. Horkavenko.

PURPOSE: This book is intended for the general reader interested in the development  
of the chemical industry of the Ukraine.

BOGOLYUBOV, Vasiliy Ivanovich[Boholiubov, V.I.]; KALECHITS,  
Vitaliy Vasil'yevich [Kalechits', V.V.]. Inzh.:  
BAUMSHTEYN, V.Ye.[Baumahtein, V.I.E.], red.

[Mint that makes gold; chemistry in our life] Monetnyi  
dvir, shcho kuiue zoloto; khimiia v nashomu zhyttii. Kyiv,  
Polityvdat Ukrayiny, 1964. 109 p. (MIRA 17:9)

1. Glavnyy spetsialist otdela planirovaniya khimicheskoy pro-  
myshlennosti Gosudarstvennogo planovogo komiteta Ukr.SSR (for  
Kalechits).

KALECHITS, Yevgeniy Vital'yevich; LEVITSKIY, Ye.F., redaktor; GALAKTIO-  
NOVA, Ye.N., tekhnicheskiy redaktor

[Principles of organizing production enterprises in continuous road construction] Printsipy organizatsii proizvodstvennykh predpriatii pri potochnom stroitel'stve dorog. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1955. 91 p. (MLRA 9:2)  
(Roads)

*Konstruktsiya avtomobil'nykh dorog*

NEKRASOV, Vladimir Konstantinovich; KALECHITS, Yevgeniy Vital'yevich;  
ALEKSEYEV, A.P., red.; KOGAN, F.I., tekhn.red.

[The building of automobile roads] Stroitel'stvo avtomobil'nykh dorog.  
Moskva, Nauchno-tekhn.izd-vo avtotransp. lit-ry, 1957. 486 p.  
(Road construction) (MIRA 11:2)

K/MECHANIZM S. B.

KOTLYARSKIY, Boris Isaakovich; PIYARSKIY, Tikhon Ivanovich; KALECHITS, Ya. V.  
redaktor; MAL'KOVA, N.V., tekhnicheskiy redaktor

[Organization of work of road machinery units] Organizatsiya rabot  
mashinodorozhnogo otriada. Moskva, Nauchno-tekhn. izd-vo avtotransp.  
lit-ry, 1957. 111 p. (MLRA 10:9)  
(Road construction)

KALECHITS, Ye.V., inzh.

Re-examine the system of compiling estimates. Avt.dor. 20  
no.11(181):26-28 N '57. (MIRA 10:12)  
(Roads—Estimates and costs)

KALECHITS, Yevgeniy Vital'yevich; BOCHIN, V.A., red.; PEDNER, A.S., red.;  
DONSKAYA, G.D., tekhn.red.

[Basic economic aspects of earthwork operations during continuous construction of roads] Osnovy ekonomiki proizvodstva zemlianykh rabot pri potochnom stroitel'stve dorog. Pod red. V.A.Bochina. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1961. 191 p. (MIRA 14:7)

(Earthwork) (Road construction)

TRESKINSKIY, Sergey Anatol'yevich; KALECHITS, Ye.V., red.;  
KOVRIZHNYKH, L.P., red.izd-va; BODANOVA, A.P., tekhn.red.

[Roads on moving soils] Dorogi v podvizhnykh gruntakh.  
Moskva, Avtotransizdat, 1963. 143 p. (MIRA 16:10)  
(Road construction) (Soil stabilisation)

KALECHITS, Ye.V.; ROMANYCHEV, Ye.D.; IVANOV, N.N., prof., red.;  
OLEYNIK, L.K., red.

[New developments in road building; variant design of the  
plans for the general organization of automobile road  
construction] Novosti dorozhnogo stroitel'stva; variantnoe  
proektirovaniye skhem obshchei organizatsii stroitel'stva  
avtomobil'nykh dorog. [n.p.] Rosvuzizdat, 1963. 50 p.  
(MIRA 17:9)

1. Otdeleniye usovershenstvovaniya rukovodlyashchikh i in-  
zhenerno-tehnicheskikh rabotnikov (for Kalechits,  
Romanychev).

SUDZHAYEV, Ivan Aleksandrovich; KALECHITS, Ye.V., red.

[Cement-concrete plants in road construction] Elemento-betonnye zavody na dorozhnym stroitel'stve. Moskva, Transport, 1965. 191 p. (MIRA 18:8)

S/081/63/000/001/023/061  
B144/D106

AUTHORS: Jeżowska-Trzebiatowska, B., Kaleciński, J.

TITLE: Radiation chemistry of oxy-anions of transition elements.  
Part 1. Reduction of potassium permanganate in aqueous  
solutions by  $\text{Co}^{60}$   $\gamma$ -rays

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 88, abstract  
IB613 (Bull. Acad. polon. sci. Sér. sci. chem., v. 9,  
no. 12, 1961, 791-797. [Eng., summary in Russ.])

Reduction chemistry of ...

S/061/63/000/001/023/061  
B144/B186

of 1.75. The high reduction yields are explained by chain reactions.  
[Abstracter's note: Complete translation.]

TRZEBIATOWSKA-JEZOWSKA, B.; KALECINSKI, J.

Radiation chemistry in alkaline solutions. Nukleonika 9 no.7/8:  
625-635 '64

1. Institute of Structural Research, Polish Academy of Sciences,  
Wroclaw.

L 34699-65 EPF(c)/EPF(n)-2/EMI(m) Pr-4/Pu-4

P/0046/64/009/07-/0625/0635/7

ACCESSION NR: AP4045669

AUTHOR: Jezowska-Trzebiatowska, B. (Yezhovska-Trzebiatowska, B.);  
Kalecinski, J. (Kaletsin'ski, Ye.)

TITLE: Radiation chemistry in alkaline solutions

SOURCE: Nukleonika, v. 9, no. 7-8, 1964, 625-635

TOPIC TAGS: radiolysis, alkaline solution, manganese, chromium,  
oxyanion

ABSTRACT: The general mechanism of radiation-induced oxidation in alkaline solutions is shown.

Card 1/2

L 34699-65

ACCESSION NR: AP4045669

(I<sup>-</sup>) ions were used. The radical and molecular yields were calculated on the basis of the mechanism of manganate radiation reduction in aqueous solutions and the reduction of alkaline solu-

|  |      |                                       |            |  |  |
|--|------|---------------------------------------|------------|--|--|
| GH2  | 0.12 | Origin or name: 1 XI 1968, GZ AY 1968 |            |  |  |
| ASSOCIATION: Polish Academy of Sciences, Institute of Structural Research, Wroclaw |      |                                       |            |  |  |
| SUBMITTED: 00  |      |                                       | ENCL: 00   |  |  |
| SUB CODE: IC, GC   |      | NO REF Sov: 001                       | OTHER: Q20 |  |  |

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620020013-7"