

SOV/68-59-4-8/23

On Schemes for Automatic Controlling of Heating Conditions of  
Coke Ovens

be solved only with a forced air supply. There are  
3 Soviet references.

ASSOCIATION: Teplotekhstantsiya

Card 2/2.

AUTHOR: Likhogub, Ye. P. SOV/68-59-5-8/25  
TITLE: On the Problem of the Instability of the Hydraulic  
Condition in the Heating Systems of Coke Ovens (K voprosu  
o nepostoyanstve gidravlicheskogo rezhima koksovykh  
pechey)  
PERIODICAL: Koks i khimiya, 1959, Nr 5, pp 24-25 (USSR)  
ABSTRACT: These are remarks on the previously published paper by  
A.N. Bykov (Koks i khimiya, 1958, Nr 10, pp 25-29).  
It was proposed in the original paper to introduce a  
standard pressure (equal to atmospheric at a given  
locality) changer in respect to which a constant suction  
is maintained on the top of the regenerators. The present  
author points out that in this way the constancy of the  
hydraulic condition cannot be maintained. In order to  
avoid completely the influence of atmospheric condition  
Card 1/1 on the consumption of air (air excess) a forced supply of  
air is necessary.  
ASSOCIATION: Teplotekhstantsiya

SOV/68-59-9-8/22

AUTHORS: Likhogub, Ye.P., and Slavgorodskiy, M.V.

TITLE: Comparative Characteristics of Coke Ovens of the PK-2K System with Various Design Modifications

PERIODICAL: Koks i khimiya, 1959, Nr 9, pp 24 - 27 (USSR)

ABSTRACT: Various modifications in the heating of coke ovens of the PK-2K system were introduced in order to obtain a uniform heating of the charge along the height of the ovens. The introduction of recirculation of the combustion products solved this problem for the Southern works operating with coals of a low vertical shrinkage, but for Eastern works operating on the Kuznetsk coals with a large shrinkage, the problem of the most rational method of heating has not yet been solved. As the future developments in the iron and steel industry will be concentrated in this region, the solution of the corrected design of ovens is urgent. For this purpose a comparison of batteries operating with and without recirculation and processing the same blend was carried out. The experimental results are given in Tables and Graphs. It is concluded that the best design of 2PK-2<sup>v</sup> ovens for processing Kuznetsk coals are ovens without recirculation of the combustion products with the

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SOV/68-59-9-8/22

Comparative Characteristics of Coke Ovens of the PK-2K System with Various Design Modifications

level of heating (burners) 800 mm above the oven sole.

There are 4 figures and 2 tables.

(Likhogub);

ASSOCIATIONS: Teplotekhstantsiya / Nizhne-Tagil'skiy metallurgicheskiy kombinat (Nizhniy Tagil Metallurgical Combine) (Slavgorodskiy)

Card 2/2

TSYNOVNIKOV, A.S.; SHEMERYANKIN, B.V.; LIKHOGUB, Ye.P.; MUSTAFIN, F.A.;  
BERKUTOVA, G.I.

Increasing the charges of coke ovens during leveling. Koks.1  
khim. no.2:19-22 '60. (MIRA 13:5)

1. Vostochnyy uglekhimicheskiy institut (for TSynovnikov,  
Shemeryankin). 2. Teplotekhnstantsiya (for Likhogub). 3. Nizhne-  
Tagil'skiy metallurgicheskiy kombinat (for Mustafin, Berkutova).  
(Nizhniy Tagil--Coal--Carbonization)

LIKHOGUB, Ya.P.

Control of large ovens heated with coke gas. Koks i khim.  
no.12:28-30 '61. (MIRA 15:2)

1. Koksokhimstantsiya.  
(Coke ovens)

LIKHOGUB, Ye.P.; KAZACHKOV, M.M.

Organization of single operations in building coke ovens.  
Koks i khim. no.7:35-37 J1 '61. (MIRA 14:9)

1. Koksokhimstantsiya (for Likhogub).
2. ~~Vsesoyuznyy~~ **trést** po stroitel'stvu i montazhu koksokhimicheskikh zavodov (for Kazachkov).  
(Coke ovens)

LIKHOGB, Ye.P.; VOL'FOVSKIY, G.M.

Effect of the recirculation of combustion products on the heating  
of coal charges. Koks i khim. no.1:24-27 '62. (MIRA 15:2)

1. Koksokhimstantsiya.

(Coke)



LIKHOGB, Ye.P.

Investigating the temperature dynamics of coke oven heating flues  
depending on the intervals between reversal. Koks i khim. no.1:  
27-29 '63. (MIRA 16:2)

1. Koksokhimstantsiya. (Coke ovens—Testing)

LIKHOLAT, T.V.

Some morphological and physiological changes taking place in  
plants under the effect of 2,4-D. Biul. Glav. bot. sada no.54:  
81-84 '64. (MIRA 17:11)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni Krupskoy.

LIKHOIAT, T.V.

Effect of 2,4-D on the accumulation of energy-rich phosphates in plants of various systematic positions. Fiziol. rast. 11 no.6: 1070-1077 N-D '64. (MIRA 18:2)

1. Department of Botany, Moscow Region Pedagogical Institute, Moscow.

YAKUSHKINA, N.I.; LIKHOLAT, T.V.

Effect of 2,4-D on the oxidative phosphorylation of mitochondria  
isolated from plants of different taxonomic groups. Dokl. AN  
SSSR 161 no.4:975-977 Ap '65. (MIRA 18:5)

1. Moskovskiy oblastnoy pedagogicheskiy institut im. N.K.Krupskoy.  
Submitted August 20, 1964.

LIKHOLAT, V.D., kand.sel'skokhozyaystvennykh nauk

Effect of farm manure and organic-mineral mixtures on the yield and sugar content of sugar beets in leached Chernozems. Agrobiologiya no.1:115-120 Ja-F '62. (MIRA 15:3)

1. Vserossiyskiy nauchno-issledovatel'skiy institut sukharnoy svekly i sakhara, Gamon', Voronizhskaya oblast'.  
(Sugar beets--Fertilizers and manures) (Chernozem soils)

LIKHOIAY, Vladimir Georgiyevich; SKOROKHODOV, Grigoriy Fedorovich;  
DEVOCHKIN, N., red.

[Toward the goals of abundance] K rubezham izobilii. Volgo-  
grad, Volgogradskoe knizhnoe izd-vo, 1963. 38 p.  
(MIRA 18:3)

VOLOVCHENKO, I. P., Geroy Sotsialisticheskogo Truda; LIKHOLAY, V. G.  
OTVERCHENKO, N. K., brigadir

Make new, greater advances in the production of grain!  
Zemledelie 24 no.12:3-5 D '62. (MIRA 16:1)

1. Direktor sovkhoza "Petrovskiy", Lipetskoy oblasti (for Volovchenko). 2. Nachal'nik Novoanninskogo territorial'nogo proizvodstvennogo sovkhozno-kolkhoznogo upravleniya Volgogradskoy oblasti (for Likhoday). 3. 2-ya traktornaya brigada kolkhoza "Rodina" Pugachevskogo rayona, Saratovskoy oblasti (for Otverchenko).

(Grain)

DREYSIN, A.G.; LIKHOLATNEROV, V.M.

Some recent data on the prospects for finding gas and oil in the Mesozoic sediments in the central sector of the Volga-Ural interfluve. Neftagas. geol. i geofiz. no.7:37-39 '64.  
(MIRA 17:8)

1. Trest "Soyuzburgaz".



MAKSIMOV, P.N.; MODELEVSKIY, M.Sh.; LIKHOLATNIKOV, V.M.

Assuring producible oil reserves. Geol. nefi i gaza 5 no.4:22-26  
Ap '61. (MIPA 14:4)

1. Ukhtinskiy neftyanoy kombinat.  
(Petroleum geology)

LEVIN, L.E.; LIKHOLATNIKOV, V.M.

New data on the prospects for oil and gas in the Pliocene  
sediments in the northern Caspian Sea region. Neftegaz. geol.  
i geofiz. no.6:20-24 '63. (MIRA 17:10)

1. Nauchno-issledovatel'skaya laboratoriya geologicheskikh kriteriyev  
otsenki perspektiv neftegazonosnosti Glavnogo upravleniya geologii i  
okhrany nedr pri Sovete Ministerov RSFSR i trest "Soyuzburgaz" Glav-  
nogo upravleniya gazovoy promyshlennosti SSSR.

**CALIKHOLET, N.M.** PROCESSES AND PROPERTIES INDEX

Determination of calcium glycerophosphate. S. M. Holotukhov and N. M. Likhobol. *Ukrain. Gosudarst. Inst. Ekspil. Farm.* (Khar'kov), *Konsul'tatsionnye Materialy* 1939, No. 10, 209-71.—Potentiometric titration of Ca glycerophosphate produced only 1 transition point, at pH 3.3-3.8 (instead of the expected 2 transition points). A complex indicator consisting of methylene blue and methyl orange is recommended for titrating at this pH. For the volumetric detn. of Ca glycerophosphate dissolve approx. 0.2-0.3 g. of the sample in 50 ml. of water, add 10 g. of NaCl, 5 drops of alc. soln. of dimethylaminoazobenzene (1:1000) and 1 drop of aq. methylene blue (1:1000) and titrate the liquid with 0.1 N HCl with shaking until the green color changes to blue-violet; 1 ml. of 0.1 N HCl soln. corresponds to 0.021015 g. of anhyd. Ca glycerophosphate. Toward the end of the titration the green color of the soln. changes gradually to bluish green and, finally, to blue with a violet shade. The last color is observed on adding 1-2 drops of 0.1 N HCl. To det. the residue after combustion moisten the prepn. in the crucible with several drops of HNO<sub>3</sub> (d. 1.4), evap. on a water bath and heat on a wire gauze until completely burned. If the residue is not white, repeat the moistening with HNO<sub>3</sub>. The amt. of the anhyd. Ca glycerophosphate is obtained by multiplying the wt. of the residue by 1.65. The detn. of the residue after combustion is the best criterion of the quality of Ca glycerophosphate. The titration method gives higher results. The results obtained by the combustion method, by the potentiometric titration and by titration with indicator were, resp., 80.5, 110.2 and 109.5%.

W. R. Henn

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COMMON VARIABLES INDEX

FROM BOMIRV

FROM BOMIRV

Likholet, N. M.

✓ Decomposition potential of potassium peroxydisulfate in connection with the electrolyte composition of the reacting medium. A. I. Yurzhenko, O. P. Brazhnikova, and N. M. Likholet (Med. Inst., Lviv). *Ukrain. Khim. Zhur.* 41, 659-61 (1965) (in Russian). — The acceleration of the peroxydisulfate decompn. by  $H^+$  was confirmed. From a comparison of the initiating action of peroxide and the rate of its decompn. in various media, the decompn. mechanism differed somewhat in acid, alkali, and neutral media. In the latter 2, the decompn. usually proceeded principally with the production of free radicals, which initiated a polymerization process; neutral media ( $Na_2SO_4$ ) retarded somewhat the peroxide decompn. In acid and neutral media. Conversely, colloidal electrolytes (Nekal, Na oleate) accelerated this decompn. The decompn. was also accelerated in olefin and paraffin hydrocarbon emulsions, apparently owing to a heterogeneous reaction course at the 2-phase boundaries.

W. M. Sternberg

RM [initials]

3 6

LIKHOLET, N.M. [Lykhol'et, N.M.]; GUSYAKOV, V.P. [Husiakov, V.P.]

Studies on the solubility of sulfanilamide preparations. Report  
No.3: Effect of some organic acids on the solubility of streptocide.  
Farmatsev.zhur. 19 no.1:52-55 '64. (MIRA 18:5)

1. Kafedra neorganicheskoy khimii L'vovskogo meditsinskogo instituta.

LIKHOLET, N.M. [Lykhol'ot, N.M.]

Study of the solubility of sulfanilamide preparations. Report N' 5.  
Farmatsev. zhur. 20 no.5:44-46 '65. (MIRA 18:11)

1. Kafedra neorganicheskoy khimii L'vovskogo meditsinskogo  
instituta; zaveduyushchiy kafedroy dotsent V.P. Gussyakov.  
Submitted February 1, 1965.

MYASNIKOV, A.M., st. inzh.; LIKHOLET, S.F., st. inzh.; BIZHAN, B., inzh.; KOMISSAROV, G.S.; KISELEV, F.S., inzh.; TUPIKOV, V.I., st. inzh.; KARPOVA, Z.A., st. inzh.; KLETSEL', M.M., inzh.; MATSKEVICH, A.V., inzh.; PUSTOVOYTOVA, K.S., red.; MOISEYEV, I.N., red.; IVANOVA, Z.V., tekhn. red.

[Hydrological yearbook] *Gidrologicheskii ezhegodnik*. Leningrad, *Gidrometeoizdat*. 1960. Vol.2. No.7-9. Pod red. K.S. Pustovoitovoi. 1962. 418 p. (MIRA 16:5)

1. *Gidrologicheskaya stantsiya Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby Serafimovich* (for Myasnikov).
2. *Gidrologicheskaya stantsiya Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby Kalach-na-Domu* (for Likholet).
3. *Gidrologicheskaya stantsiya Ryzdorskaya Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby* (for Bizhan).
4. *Nachal'nik gidrologicheskoy stantsii Sal'sk Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby* (for Komissarov).
5. *Khar'kovskaya gidrometeorologicheskaya observatoriya* (for Tupikov).
6. *Khar'kovskaya gidrologicheskaya stantsiya* (for Karpova).
7. *Saratovskaya gidrologicheskaya stantsiya* (for Kletsel').
8. *Gidrologicheskaya stantsiya Kaluga* (for Matskevich).

(Hydrology--Tables, calculations, etc.)

Likholet, Ye.I.

75

**AUTHOR:** Shirayev, A.G., and Likholet, Ye.I.

**TITLE:** Boring Holes in Housing Components on Radial Drilling Machines (Rastachivaniye otverstiy v korpusnykh Detalyakh na radial'no-sverlil'nykh stankakh)

**PERIODICAL:** Stanki I Instrument, 1957, No. 1. pp 8-10 (U.S.S.R.)

**ABSTRACT:** Orgstankinprom has developed a production method which is used at the Machine Tool Plant imeni Sedina (Stankozavod Imeni Sedina) to machine gear box housings for vertical lathes. Tools, tool holders and fixtures in production sequence are described in boring holes in a machine tool housing component to the second degree of accuracy, while maintaining the combined geometric tolerances below 0.2 mm by drilling, reaming and sinking on a radial drill while the component is clamped in a drill jig with long interchangeable drill bushes. The tool holders have "Tufnol" sleeves which fit into the drill bushes. Wear tests for the

Card 1/2



KOVALENKO, G.K.; LIKHOLET, Ye.I.; KHRIPUNOV, A.I.

Plastics for manufacturing parts for vertical boring and turning  
machines. Stan.i instr. 32 no.10:21-23 0 '61. (MIRA 14:9)  
(Plastics) (Lathes)

LIKHOLETOV, I. I.

Dissertation: -- "On the Teaching of Mathematics at the University of Moscow from 1804 to 1860." Cand Phys-Math Sci, Moscow Order of Lenin State U named N. V. Lomonosov, 15 Jun 54. ( Vechernyaya Moskva, Moscow, 4 Jun 54)

SO: Sova 313, 23 Dec. 1954

LIKHOLOTOV, I.I.; YANOVSKAYA, S.A.

History of the teaching of mathematics at Moscow University  
from 1804 to 1860. Ist.-mat.issl. no.8:127-480 '55.(MLRA 9:6)  
(Moscow University) (Mathematics--Study and teaching)

LIKHOLETOV, I. N.

37407. SHTOYKO, D. A.; ALEKSEEVA, A. O.; i LIKHOLETOV, I. N. Agrotekhnika  
Usennego Sev' Ozim'nykh. V Sb: Za Vysokuyu Kul'turu Zemledeliya Kursk,  
1949, s. 7-22.

SO: Letopis' Zhrunal'nykh Statey, Vol. 7, 1949

LIKHOLETOV, I. N.

37399. Sertovoye Rayonirovanie Ozimoy Pshenitsy i Ozimoy Rzhi Po  
Kurskoy Oblasti, Na 1949 God. v Sb: Za Vysokuyukul'-turu Zemledeliya.  
Kursk, 1949, s. 134-68.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

LIKHOLETOV, V., podpolkovnik, kand. voyennykh nauk

Calculating a run with an antiaircraft launcher. Av. i Kosm. 27 no.10:  
57-62 O '64. (MIRA 17:10)

LIKHOLETOV, V. <sup>P</sup> mayor.

Eliminating radio deviations. Vest, Vozd, Fl. 34 no. 12:42-49 D '51.  
(Navigation(Aeronautics))(Radio waves) (MLRA 8:3)

LIKHOLETOV, V. P.

Subject : USSR/Aeronautics AID - P-125  
Card : 1/1  
Author : Likholetov, V., Lt. Col., Kand. of Military Science  
Title : Navigator's Calculations for Interception  
Periodical : Air Force Herald, 4, 29 - 38, Ap 1954  
Abstract : The author cites as classical and outstanding the interception and destruction of the American B-29 in 1950. He describes various methods and conditions of interception. The main part of the article is the pre-calculation and determination of the possibility of fighters reaching independently the rear hemispherical region of enemy aircraft, after its discovery on its way home. Two examples of computations are given. Diagrams and tables.  
Institution : None  
Submitted : No date



SOV/86-58-9-24/42

**AUTHOR:** Likholetov, V. P., Lt Col, Candidate of Military Sciences, and Il'in, Ye. M., Engr Maj

**TITLE:** Methods of Determining the Time Available for Patrolling (Metody opredeleniya vozmoznogo vremeni barrazhirovaniya)

**PERIODICAL:** Vestnik vozdushnogo flota, 1958, Nr 9, pp 42-45 (USSR)

**ABSTRACT:** The authors describe a method of determining the time available to fighters for patrolling prior to intercepting enemy aircraft. The authors state that in their unit a method has been worked out and checked in practice to calculate with the aid of graphs the patrol time in the air at various altitudes and speeds. The authors supply a graph showing the maximum patrolling time available to a MiG type aircraft without drop tanks. One graph.

Card 1/1

ISEVLEV, V.A.; LIKHOLETOVA, A.G.

Therapeutic use of artificial radon baths under hospital  
conditions. Voen. med. zhur. no.10:70-71 0 '65.  
(MIRA 18:11)

LIKHOMAN, M.A.

The Volga-Sarpinskiy physicogeographical region within the  
boundaries of Astrakhan Province. Uch.zap. Ser. un. 72:73-78  
'59. (MIRA 13:8)  
(Astrakhan Province--Physical geography)

TROITSKIY, L.F., inzh. (Mirmansk); PRISTUPA, I.I., mekhanik-naladchik  
(stantsiya Baranovich, Belorusskoy dorogi); LIKHOMAN, S.A.

Engineers' contribution to practice. Put' 1 put.khoz. 4  
no.1:35-38 Ja '60. (MIRA 13:5)

1. Starshiy inzhener otdela zashchitnykh lesonasazhdeniy,  
Khar'kov (for Likhoman).  
(Railroads--Technological innovations)

LIKHOMAN, S. A., starshiy inzhener sluzhby puti (Khar'kov)

"Green belts for railroads" by [nachal'nik Penzenskoy distantsii  
zashchitnykh lesoposadoniy] A. Samartsev. Reviewed by S. A. Likhoman.  
Put' i put, Khoz. 5 no. 11:44 N 61. (MIRA 12:12)  
(Windbreaks, shelterbelts, etc.)

LIKHOMAN, S.A.

Preserving the tree plantings. Put' i put.khoz. 8 no.3:19 '64.  
(MIRA 17:3)

1. Starshiy inzh. Belgorodskoy distantzii zashchitnykh leonasazh-  
deniy Yuzhnoy dorogi.

Л. К. ХОМАСЬКО, В. Т.  
✓ Likhomskii, Vladimir F.: Paperschäden und ihre Beseitigung. Translated from Russian by Bruno Assmann. Leipzig: Fachbuchverlag. 1955. 25 pp.

MT

LIKHOMSKIY, V.P.

Improved open type press boxes. Bum. prom. 31 no.11:19-20  
N '56. (MIRA 10:2)

1. Kamskiy tsellyulozno-bumazhnyy kombinat.  
(Paper industry)



Country : CHINA R  
Category : Chemical Technology. Chemical Products (Part 4).  
          : Cellulose and Its Derivatives. Paper  
Abs. Jour. : Ref Zhur-Khim, 1959, No 7, 25763  
  
Author : Likhomaskiy, V. T.  
Institut. :  
Title : Factors Influencing the Quality of Paper  
  
Orig Pub. : Tsao-chih kung-yeh, 1957, No 12, 17-19  
  
Abstract : No abstract.  
          : Translation. See Ref Zhur-Khim, 1958, 56104.

Card: 1/1

LIKHOMSKIY, V.T.

This is the real struggle for quality indices. *Entn.prom.*, 38 no.2:11-12  
F '63. (MIRA 16:2)

1. Glavnyy tekhnolog Kamskogo kombinata.  
(Paper industry)

LIKHOMSKIY, Vladislav Tadeushevich; YERSHOV, Aleksandr  
Varfolomeyevich; KLIMOVA, Yu.N., red.

[Manufacture of coated paper] Proizvodstvo melovannoi bu-  
magi. Moskva, Izd-vo "Lesnaia promyshlennost'", 1964. 69 p.  
(MIRA 17:5)

GOLUBEVA, A.A., LIKHONOS, A.N., MARKARYAN, A.G., PILETSKAYA, Ye.M.

Incidence of brucellosis in Stavropol Territory. Zdrav.Ros.Fed.  
2 no.9:18-21 S'58 (MIRA 11:10)

1. Iz Instituta epidemiologii i mikrobiologii i Stavropol'skoy  
krayevoy sanitarno-epidemiologicheskoy stantsii.  
(STAVROPOL TERRITORY--BRUCELLOSIS)

SHAFERSHTEYN, D.L.; FEKTISTOV, A.Z.; POKROVSKAYA, Ye.V.; LIKHONOS, A.N.

Epidemiological significance of the migration of *Br. melitensis* to cattle (according to data from the Stavropol Territory). Zhur. mikrobiol. epid. i immun. 32 no.6:59-61 Je '61. (MIRA 15:5)

1. Iz Stavropol'skoy krayevoy sanitarno-epidemiologicheskoy stantsii. (STAVROPOL TERRITORY--BRUCELLOSIS IN CATTLE)

LIKHONOS, A.N.

Experience in the prevention of brucellosis in Stavropol Territory.  
Zhur. mikrobiol., epid. i immun. 40 no.6:3-8 Je '63.

(MIRA 17:6)

1. Iz Stavropol'skoy krayevoy sanitarno-epidemiologicheskoy  
stantsii.

LIKHONOS, F. D.

Plodovoiagodnyi sad i pitomnik [Fruit and berry orchard and nursery]. Moskva, Sel'khozgiz., 1953. 256 p.

SO: Monthly List of Russian Accessions, Vol 6 No 6 September 1953

Name: LIKHONOS, Fedor Dmitriyevich

Dissertation: Bases of grading of apple trees

Degree: Doc Agr Sci

Affiliation: Leningrad Fruit and Berry Experimental Station

Defense Date, Place: 2 Mar 55, Council of the All-Union Sci Res Inst  
of Plant Cultivation

Certification Date: 4 May 56

Source: BMVO 15/57



LIKHONOS, Fedor Dmitriyevich; NILOV, S.N., red.; CHUNAYEVA, Z.V., tekhn.red.

[Apple trees] I Ablonia. Izd. 3-e. Moskva, Gos. izd-vo sel'khoz.  
lit-ry, 1957. 167 p. (Bibliotekha po sadovodstvu, no.7)  
(MIRA 11:1)

(Apple)

~~MIKHAYLOV, Fedor Dmitriyevich~~; MIKHAYLOV, Ivan Gavrilovich; RYBITSKIY,  
Nikolay Antonovich; VOROB'YEV, F.I., redaktor; CHUNAYEVA, Z.V.,  
tekhnicheskiy redaktor

[Fruit and berry orchards and nurseries] Plodovo-lagodnyi sad i  
pitomnik. Izd. 3-e. Moskva, Gos. izd-vo sel'khoz.lit-ry, 1957.  
274 p. (MLRA 10:10)

(Fruit culture) (Nurseries (Horticulture))

BOGORAD, Lazar' Moiseyevich; GAVRILOV, Viktor Gavrilovich, kand.sel'skokhoz.  
nauk; GORYACHEVA, Yevgeniya Petrovna, kand.sel'skokhoz.nauk;  
LIKONOS, Fedor Dmitriyevich, doktor sel'skokhoz.nauk; MIKHAYLOV,  
Ivan Gavrilovich; PETROV, N.P., red.; MOLODTSOVA, N.G., tekhn.red.

[Manual for orchard foremen on collective and state farms of the  
non-Chernozem zone] Spravochnik brigadira-sadovoda; kolkhozov i  
sovkhozov nechernozemnoi polosy. Izd.2. Moskva, Gos.izd-vo  
sel'khoz.lit-ry, 1959. 398 p. (MIRA 14:1)  
(Fruit culture)

LIKHONOS, F.D.

Some biological characteristics of fruit-tree seeds and seedlings. Bot.zhur. 44 no.9:1341-1344 S '59. (MIRA 13:2)

1. Leningradskaya opytnaya stantsiya po sadovodstvu, Leningrad-Pavlovsk.  
(Fruit culture) (Seeds)

RYBITSKIY, N.A.; URBAN, V.I.; MEL'NIKOV, P.Ya.; DOMBROVSKIY, V.P.;  
BEYLINSON, A.O.; LIKHONOS, F.D., doktor sel'skokhoz.nauk, red.;  
AUERBAKH, L.K., tekhn.red.

[Everything for the orchard and garden; catalog-handbook on  
fruit and vegetable culture, orchard and garden equipment,  
fertilizers and insecticides] Vse dlia sada i ogoroda; katalog-  
spravochnik po sadovodstvu i ogorodnichestvu, sadovo-ogorodnomu  
inventariu, udobreniam i iadokhimikatam. Leningrad, Izd.Leningr.  
kombinata Rostorgreklama, 1960. 166 p. (MIRA 13:6)

1. Leningradskaya mezhhoblastnaya optovaya baza Roskhozorg Mi-  
nisterstva trgovli RSFSR (for Mel'nikov, Dombrovskiy, Beylinson).  
(Gardening)

LIKHONOS, F.D.

Some data on the systematics of species and cultivated varieties of  
apple. Biul. Glav. bot. sada no.51:59-67 '63. (MIRA 17:2)

1. Vsesoyuznyy institut rasteniyevodstva, Leniograd.

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.; LIKHONOS, Ye.F.

Rate of crystallization of gypsum during the continuous  
neutralization of hydrolyzates. *Gidroliz. i lesokhim. prom.*  
12 no.6:4-6 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i  
sul'fitnospirtovoy promyshlennosti.  
(Gypsum) (Hydrolysis)

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.; LIKHONOS, Ye.F.

Rate of crystallization of plaster of Paris from supersaturated solutions at various temperatures. Zhur. prikl. khim. 34 no.1: 120-125 Ja '61. (MIRA 14:1)

(Plaster of Paris)



LIKHONOS, Ye.F.; KOROL'KOV, I.I.

Determination of the quantity of soluble polysaccharides.  
in hydrolyzates. Zhur. prikl. khim. 36 no.5:1152-1154  
My '63. (MIRA 16:8)

(Polysaccharides) (Hydrolysis)

KOROL'KOV, I.I.; LIKHONOS, Ye.F.; UL'YANOVSKAYA, R.I.; LIKHOVID, R.D.

Investigating the characteristics of the hydrolysis of easily  
hydrolized polysaccharides. *Gidroliz. i lesokhim. prom.* 17 no.7:  
4-7 '64. (MIRA 17:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy  
i sul'fitno-spirovoy promyshlennosti, Leningrad.

LIKHONOS, Ye.F.; KOROL'KOV, I.I.

Simplified methodology for determining the amount of dextrans in hydrolyzates. *Gidroliz. i lesokhim.prom.* 17 no.2:18-19 '64.  
(MIRA 17:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti.

LIKHONOS, Ye.F.; KOROL'KOV, I.I.

Analyzing the inversion of wood hydrolyzates. *Gidroliz. i lesokhim.*  
prom. 18 no.6:3-4 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy  
i sul'fitno-spirtovoy promyshlennosti.

KOROL'KOV, I.I.; LIKHONOS, Ye.S.

Composition of the reducing nonsugars of hydrolyzates. *Gidroliz.*  
i *lesokhin. prom. 18 no.3:9-12 '65.* (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhnicheskikh  
i sanitarno-tekhnicheskikh rabot.

KOROL'KOV, I.I.; LIKHONOS, Ye.F.; BOBOREKO, E.A.; DRUBLYANETS, E.E.;  
KARDASH, F.G.; NORINA, A.Ye.

Industrial testing of the technology of yeast propagation on  
inverted hydrolyzates. *Gidroliz. i lesokhim. prom.* 18 no.5:4-  
6 '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy  
i sul'fitno-spirtovoy promyshlennosti (for Korol'kov, Likhonos,  
Boboreko, Drublyanets). 2. Tavdinskiy gidroliznyy zavod (for  
Kardash, Norina).

GUSHCHIN, N.I.; KMET', S.K., veterinarnyy vrach-metodist; LIKHONOSOVA, N.D., veterinarnyy vrach-metodist; NECHAYEVA, Ye.G., redaktor; PAVLOVA, M.M., tekhnicheskiy redaktor

[\*Veterinary polyclinic\* pavilion; a guidebook] Pavil'on "Veterinarnaya poliklinika"; putevoditel'. Moskva, Gos. uzd-vo selkhoz. lit-ry (MLRA 9:10) 1956. 22 p.

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-
2. Direktor pavil'ona (for Gushchin)  
(Moscow--Veterinary medicine--exhibition)

KRASIKOVA, V. I.; LIKHONOSOVA, N. D.; MARUSHKINA, V. I.; KARASEVICH, Ye. K.; LUDANOVA, N.V.  
MIKHAYLOVA, M. M.; OVCHINNIKOVA, L. P.

"Study on the intensity of brine microflora respiration during ham curing."

report submitted for 10th European Mtg, Meat Res Workers, Rockilde, Denmark, 7-15  
Aug 1964.



LIFHONGSOV, V.N.

Use of lead collimator for the examination of the permeability of skin lymphatic capillars by means of  $J^{131}$ -labelled albumin. Med. rad. 10 no.9:83-84 S '65. (MIRA 18:10)

1. Ukrainskiy nauchno-issledovatel'skiy kozhno-venereologicheskii institut (direktor - dotsent A.I.Pyatikov).

GALUSHIN, V.M.; LIKHOPEK, Ye.A.; LOGUNOVA, F.N.; RUBINSHTEYN, N.A.

Gulls in the southeastern Yamal Peninsula. Uch. zap. MGPI no.227:  
279-290 '64. (MIRA 18:11)

*LIKHORADOV, A.P.*

BEL'GOL'SKIY, B.P.; STAROSEL'SKIY, A.L.; LIKHORADOV, A.P.; TSYMBAL, F.Ye.,  
master rel'sobalochного stana; BURTSEV, A.F., master rel'sobalochного  
stana.

[Rapid changing of rollers in a rolling mill] Skorostnaia perevalka  
valkov prokatного stana; opyt raboty masterov rel'sobalochного stana  
F.E.Tsybala i A.F.Burtseva. Khar'kov Gos. nauchno-tekhn. izd-vo  
lit-ry po chernoi i tsvetnoi metallurgii, 1953. 63 p. (MLRA 7:5)  
(Rolls (Iron mills))

LIKHORADOV, A. P.

B. P. Bel'gol'skiy, A. L. Starosel'skiy, A. P. Likhoradov, Skorostnaya perevalka  
(opyt raboty masterov rel'sobalochnoy stana F. Ye. Tsimbala i A. F. Burtseva)  
[High-speed Roll-Changing (Work Experience of F. Ye. Tsimbal and A. F. Burtsev,  
Foremen of a Rail-Rolling Mill)], Metallurgizdat, 3 sheets

Summarizes the advanced methods of the best foremen of the rail-rolling shop of the plant imeni Petrovskiy, the initiators of high-speed roll changing. Gives the methods of High-speed roll changing, an analysis of the work performed in the several operations and the time taken by them, and an analysis of the methods of work. A Rational graph of roll-changing is proposed.

Brochure for foremen and workmen of rolling mills.

SO: U-6472, 12 Nov 1954

SERGIYENKO, A.I., inzh.; LIKHORADOV, A.P., inzh.; GUBINSKIY, V.I.,  
inzh.; BABANIN, A.I., inzh.

Operation of recuperator soaking pits with liquid slag re-  
moval. Stal' 20 no.8:763 Ag '60. (MIRA 13:7)

1. Zavod "Krivorozhstal'."  
(Furnaces, Heating)

CHEKMAREV, A.P., akademik; MELESHKO, V.I., kand.tekhn.nauk; PAVLOV, V.L.,  
kand.tekhn.nauk; CHEKHRANOV, V.D., kand.tekhn.nauk;  
GALATOV, N.S., inzh.; LIKHORADOV, A.P., inzh.

Blooming mill operations with individual roll drives. Trudy  
Inst. chern. met. AN URSR 15:177-188 '61. (MIRA 15:2)  
(Rolling mills--Electric driving)

KUDRIN, Ye.A.; LIKHORADOV, A.P.; KRUSKAL', M.S.; BABANIN, A.I.

Redesign of ceramic soaking pit recuperators. Metallurg 8  
no.10:29-31 0 '63. (MIRA 16:12)

1. Krivorozhskiy metallurgicheskiy zavod.

LIKHORADOV, A.P.; ENTIN, I.I.; TALAN, G.J.

Improving the quality of sinter is an important potentiality  
for increasing iron production. Met. i gornorud. prom. no.1;  
15-18 Ja-F '64. (MIRA 17:10)



GIMMEI'FARB, A.A., kand. tekhn. nauk; LIKHORADOV, A.P.; ZHEMBUS, M.D.;  
ZHAK, A.M.

Increasing the strength of fluxed sinter. Met. i gornorud.  
prom. no.6:7-11 N-D '65. (MIRA 18:12)

LIKHORADOV, A.P.; ZHIGULIN, V.I.; ZHEMBUS, M.D.; RUDAKOV, V.F.; KOTOV, K.I.;  
ZHAK, A.M.; TSYMBALYUK, V.Yu.; FILIMONOV, V.V.

Service of the lining and cooling equipment of a blast furnace  
in the smelting of ferromanganese. Metallurg 10 no.10:12-14  
0 '65. (MIRA 18:10)

1. Zavod im. Petrovskogo.

KOCHETKOV, N.K.; LIKHOSHERSTOV, A.M.; LIKHOSHERSTOV, L.M.

New method of synthesizing natural amino alcohols of the pyrrolizidine and quinolizidine series. Zhur. VKHO 5 no.1:109-110 '60.  
(MIRA 14:3)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR.

(Alcohols)

(Phrrolopyrrole)

(Norlupinane)

KOCHETKOV, N.K.; LIKHOSHERSTOV, A.M.

Synthesis of d, l-isoretrosecanol. Zhur. VKHO 5 no.4:477-478 '60.  
(MIRA 13:12)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh  
nauk SSSR.

(Retronecanol)

KOCHETKOV, N.K.; LIKHOSHERSTOV, A.M.; BUDOVSKIY, E.I.

Pyrrolizidine of alkaloids. Part 1: Synthesis of 1-hydroxy-  
methylpyrrolizidine (*dl*-trachelanthamidine). Zhur.ob.khim.  
30 no.6:2077-2082 Je '60. (MIRA 13:6)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh  
nauk SSSR.

(Trachelanthamidine)

KOCHETKOV, N.K.; LIKHOSHERSTOV, A.M.; LEBEDEVA, A.S.

Pyrrrolizidine alkaloids. Part 2. Stereospecific synthesis  
of d, l-isoretronecanol. Zhur.ob.khim. 31 no.10:3461-3469 0 '61.  
(MIRA 14:10)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk  
SSSR.

(Isoretronecanol)

LIKHOSHERSTOV, A.M.; KRITSYN, A.M.; KOCHETKOV, N.K.

Pyrrrolisidine alkaloids. Absolute configuration of 1-methylene-  
pyrrrolisidine and other pyrrrolisidine bases. Dokl. AN SSSR 141  
no.2:361-363 N '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy institut farmakologii i khimioterapii  
Akademii meditsinskikh nauk SSSR. 2. Chlen-korrespondent AN SSSR  
(for Kochetkov).

(Perrolizine)

LIKHOSHERSTOV, A.M.; KRITSYN, A.M.; KOCHETKOV, N.K.

Pyrrolizine alkaloids. Part 4: Total synthesis of the l-methylene-  
pyrrolizine alkaloid. Zhur.ob.khim. 32 no.7:2377-2379 JI '62.  
(MIRA 15:7)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk  
SSSR.

(Pyrrolizine)

(Alkaloids)



KRITSYN, A.M.; LIKHOSHERSTOV, A.M.; PROTOPOVA, T.V.; SKOLDINOV, A.P.

"Ethambutol" and related compounds. Synthesis and stereochemical relations. Dokl.AN SSSR 145 no.2:332-335 J1 '62. (MIRA 15:7)

1. Institut farmakologii i khimioterapii AMN SSSR. Predstavleno akademikom A.N.Nesmeyanovym.  
(Etbane) (Butanol)

LIKHOSHERSTOV, A.M.; LIKHOSHERSTOV, L.M.; KOCHETKOV, N.K.

Pyrrrolizine alkaloids. Part 5: General way of synthesizing natural amino alcohols of the pyrrrolizine and quinolizine series. Zhur. ob.khim. 33 no.6:1801-1807 Je '63. (MIRA 16:7)

1. Institut farmakologii i khimioterapii AMN SSSR.  
(Alkaloids) (Pyrrrolizine) (Quinolizine)

ACCESSION NR: AP5002625

S/0079/64/034/008/2798/2801

AUTHOR: Likhoshesterov, A. M.; Kulakov, V. N.; Kochetkov, N. K. B

TITLE: Pyrrolizidine alkaloids. VII. Stereoisomeric transformation in the series of pyrrolizidinecarboxylic-1 acids

SOURCE: Zhurnal obshchey khimii, v. 34, no. 8, 1964, 2798-2801

TOPIC TAGS: isomerization, carboxylic acid, hydrochloric acid

Abstract: The isomerization of the heliotridane system to the pseudoheliotridane system was investigated as a means of synthesis. It was found that pyrrolizidinecarboxylic-1 acids themselves readily undergo such epimerization in the presence of concentrated hydrochloric acid. Thus a new means of conversion from derivatives of the heliotridane group to derivatives of the pseudoheliotridane group was developed, and was found to be suitable both for racemic and for optically active pyrrolizidinecarboxylic-1 acids. Orig. art. has 1 formula and 1 table.

Card 1/2

ACCESSION NR: AP5002625

ASSOCIATION: Institut farmakologii i khimioterapii Akademii meditsinskikh nauk  
SSSR (Institute of Pharmacology and Chemotherapy, Academy of Medical Sciences, SSSR)

SUBMITTED: 27Jun63

ENCL: 00

SUB CODE: GC, OC

NO REF SOV: 006

OTHER: 004

JPRS

Card 2/2

LEBEDEVA, A.S.; LIKHOSHERSTOV, A.M.; SKOLDINOV, A.P.

Derivatives of azacycloalkanes. Part 1: N-substituted  
 $\alpha$ -pyrrolidinecarboxylic acids and their esters. Zhur. ob.  
khim. 34 no.11:3806-3809 N '64 (MIRA 18:1)

1. Institut farmakologii i khimioterapii AMN SSSR.

LEBEDEVA, A.S.; LIKHOSHERSTOV, A.M.; SKOLDINOV, A.P.

Derivatives of azacycloalkanes, Part 2: Dialkylaminoalkyl  
esters of N-substituted  $\delta$ -pyrrolidinecarboxylic acids.  
Zhur. ob. khim. 34 no.11:3809-3811 N '64 (MIRA 18:1)

1. Institut farmakologii i khimioterapii AMN SSSR.

LIKHOSHERSTOV, A.M.; KOCHETKOV, N.K.

Advances in the chemistry of pyrrolisidine. Usp. khim. 34 no.9:1550-  
1582 S '65. (MIRA 18:10)

1. Institut farmakologii i khimioterapii AMN SSSR.

S/129/63/000/001/006/017  
E073/E551

AUTHORS: Likhosherstov, D.M. and Chervyakov, Yu.S., Engineers

TITLE: On increasing the cavitation-erosion and corrosion resistance of engine components

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.1, 1963, 19-21

TEXT: Nitriding to a depth of 0.5-0.8 mm was developed as a low-cost substitute for the chromium-plating of cylinder liners made of the steel 38XMH<sub>2</sub>A (38KhMYuA). To avoid excessive warping the liners were nitrided in two stages, first the internal surface and then the external. To determine the optimum surface quality for nitriding, specimens at various stages of the rough and final machining were used, and to determine the effect of preliminary surface treatment, batches of liners were nitrided at 520°C using ammonia with a 25-30% dissociation. The phase compositions were determined by analysis of layers at the surface and at the depths of 0.02 mm and 0.04 mm. Nitriding times of 3 and 6.5 hours were used. The surface layers consisted of  $\epsilon + \gamma'$ , and the layer at 0.04 mm of  $\alpha$ -phase, for all types of surface

Card 1/2



On increasing the cavitation-erosion ... S/129/63/000/001/006/017  
E073/E551

preparation and for times of both 3 and 6.5 hours. With the 0.02 mm layers, phosphate pretreatment gave  $\epsilon + \gamma'$  after both 3 and 6.5 hours, sandblasting gave  $\gamma' + \alpha$  after 3 hours and  $\epsilon + \gamma' + \alpha$  after 6.5 hours, and simple degreasing gave  $\gamma' + \alpha$  after 3 hours and  $\epsilon + \gamma'$  after 6.5 hours. Nitriding of the outer surface produced a maximum warping of 0.1 mm, less than half of the permissible value. Running tests showed no traces of cavitation-erosion or corrosion damage after 2100 hours, but zinc or chromium-plated reference specimens showed partial destruction. Nitrided liners did not show any trace of cavitation damage after more than 4000 hours whilst chromium-plated liners began to fail after 2000 hours and zinc-plated liners after 1000 hours. Because of the increased cavitation-erosion resistance of the liners it became necessary to substitute an Al9 alloy cylinder jacket for the usual cast-iron, but no damage to the alloy was observed after 3000 hours operation. There is 1 table.

ASSOCIATION: Tomskiy politekhnicheskiy institut  
(Tomsk Polytechnic Institute)

Card 2/2

TYUTEVA, N.D.; LIKHOSHERSTOV, D.M.

Small additions and dislocations. Izv. vys. ucheb. zav.;  
chern. met. 6 no.12:137-140 '63. (MIRA 17:1)

1. Tomskiy politekhnicheskii institut.

L 65083-65 EWT(d)/EWT(m)/EWA(q)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(z)/EWP(b).

ACCESSION NR: AP5021223

EWP(1) JD

UR/0125/65/000/008/0034/0036

621.791.756.054:621.90.02

AUTHOR: Radchenko, V.G. (Engineer); Arsenkin, V.T. (Engineer); Shabalín, V.N. (Engineer); Likhosherstov, D.M. (Engineer)

TITLE: Increasing the hardness of cutting tools with the aid of electroslag remelting

SOURCE: Avtomaticheskaya svarka, no. 8, 1965, 34-36

TOPIC TAGS: electroslag remelting, tool hardness, cutting tool, ingot mold, high speed steel, dendrite directivity

ABSTRACT: The article presents the results of an investigation of the positions of the principal axes of dendrites with respect to the edge of cutting tools on the hardness of these tools. Different dendrite directivities were attained by using ingot molds of different diameters (50-100 mm) and varying the regime of electroslag remelting (U = 27-43 v, I<sub>w</sub> = 600-2700 a) of electrodes with diameters of 20-75 mm. The electroslag remelting of the wastes of high-speed steel was performed in open-type water-cooled copper ingot molds, with broken or worn tools of furnace-remelted tool wastes (broaches, augers, reamers, etc.) being used as the consu-

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L 65083-65

ACCESSION NR: AP5021223

mable-electrode rods. Dendrite directivity was determined by examining transverse and longitudinal macrosections of the ingots. Tool hardness was examined by cutting out 15x19x9 mm plates from the ingots, on taking into account dendrite directivity, placing them in tool holders, and then operating them as part of grinding machines, with subsequent comparative determination of the wear and blunting time of such cutting tools. Findings: cutting tools fabricated from small ingots (diameter up to 100 mm) obtained as a result of the electroslag remelting of the wastes of high-speed steel are, even when the dendrite directivity is not optimal, some 50 percent harder than cutting tools fabricated from rolled metal. An efficient utilization of the directivity of the principal dendrite axes makes it possible to enhance the hardness of metal 2-2.5 times. The peening of small ingots of steel remelted by the electroslag method increases the plasticity of the cutting tools but reduces their hardness to values roughly the same as the hardness of cutting tools made of the same high-speed steel, but without electroslag remelting. The higher hardness of tools made of cast steel obtained by the electroslag method is due to the nature of the process of the electroslag melting and crystallization of small ingots, and possibly also to a more disperse and distinctive distribution of the carbides and other components throughout the ingot cross section. The clarification of these questions will be the subject of special studies. Orig. art. has:

Card 2/3

L 65083-65

ACCESSION NR: AP5021223

3 figures, 1 table.

ASSOCIATION: Altayskiy politekhnicheskiy institut im. I. I. Polzunova (Altay Polytechnic Institute)

SUBMITTED: 18Feb65

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 005

OTHER: 000

*m2r*  
Card 3/3

5(3)  
AUTHORS: Kochetkov, N. K., Khomutova, Ye. D., SOV/79-29-5-53/75  
Likhosherstov, L. M.

TITLE: Synthesis of 6-Aryl-Nicotinic Acids and 6-Aryl Pyridines  
(Sintez 6-arilnikotinovykh kislot i 6-arilpiridinov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1657-1659  
(USSR)

ABSTRACT: Earlier papers (Refs 1-4) described the use of  $\beta$ -chlorovinyl ketones and their derivatives for the synthesis of derivatives of nicotinic acid and pyridine. By using aryl- $\beta$ -chlorovinyl ketones the corresponding aryl-substituted derivatives are obtained. The synthesis may be carried out by condensation of aryl- $\beta$ -chlorovinyl ketones with acetoacetic ester and ammonia or with aminocrotonic acid ester. In both cases, phenyl- $\beta$ -chlorovinyl ketone or its derivatives (o-chloro-, p-chloro-, p-nitrophenyl- $\beta$ -chlorovinyl ketone) yield after several hours of boiling in benzene the corresponding ester of 2-methyl-6-aryl-nicotinic acid in a yield of from 50 to 65 %. The saponified esters were dry-distilled with soda lime and gave the corresponding 2-methyl-6-aryl pyridines. The experimental describes the course of the syntheses

Card 1/2

Synthesis of 6-Aryl-Nicotinic Acids and 6-Aryl Pyridines SOV/79-29-5-53/75

and gives the analytical and physical data of the compounds obtained. There are 9 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: April 14, 1958



Card 2/2

16.4500

37610

S/044/62/000/004/051/099  
C111/C333AUTHORS: Likhtarnikov, L.M., Myakishev, V.P.

TITLE: The solution of integro-differential equations of parabolic type with partial derivatives according to the Fourier method

PERIODICAL: Referativnyy zhurnal, Matematika, no. 4, 1962, 58, abstract 4B266. ("Uch. zap. Irkutskogo gos. ped. in-ta", 1960, no. 17, 168-177) J

TEXT: In the rectangle  $D$ ,  $a \leq x \leq b$ ,  $0 \leq t \leq t_0$ , the authors determine, according to the Fourier method, the solution of the integro-differential equation

$$A(t) \frac{\partial u}{\partial t} + B(x) \frac{\partial^2 u}{\partial x^2} + C(x) \frac{\partial u}{\partial x} + [D(x) + E(t)] u = f(x, t) +$$

$$+ \lambda \iint_{(D)} k(x, t, z, \sigma) \left[ a(z, \sigma) \frac{\partial u}{\partial z} + b(z, \sigma) \frac{\partial u}{\partial \sigma} + c(z, \sigma) u \right] dz d\sigma.$$

Card 1/2



The solution of integro-differential ... S/044/62/000/004/051/099  
C111/C333

which satisfies the conditions  $u|_{t=0} = \varphi(x)$ ;  $\alpha_1 u + \alpha_2 \frac{\partial u}{\partial x}|_{x=a} = \beta_1 u + \beta_2 \frac{\partial u}{\partial x}|_{x=b} = 0$ . It is assumed that uniformly convergent series expansions

J

$$k(x, t, z, \sigma) = \sum_{n=1}^{\infty} e_n(t, z, \sigma) X_n(x),$$

$$f(x, t) = \sum_{n=1}^{\infty} \delta_n(t) X_n(x), \quad \varphi(x) = \sum_{n=1}^{\infty} \omega_n X_n(x),$$

are valid, and that these series can be differentiated term by term twice with respect to  $x$  and once with respect to  $t$ ; the differentiated series converge uniformly. Here  $X_n(x)$  are the eigenfunctions of the boundary value problem to which the Fourier method is leading.

[Abstracter's note : Complete translation.]

Card 2/2

KOCHETKOV, N.K.; LIKHOSHERSTOV, A.M.; LIKHOSHERSTOV, I.M.

New method of synthesizing natural amino alcohols of the pyrrolizidine and quinolizidine series. Zhur. VKHO 5 no.1:109-110 '60.  
(MIRA 14:3)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR.

(Alcohols)

(Phrrolopyrrole)

(Norlupinane)

LIKHNERSTOV, L. M., KOCHEVNIKOV, M. K. (USSR)

"Synthesis of Pyrrolizidine Alkaloids."

Report presented at the 5th Int'l. Biochemistry Congress,  
Moscow, 10-16 Aug 1961.

KOCHETKOV, N.K.; DEREVITSKAYA, V.A.; LIKHOSHERSTOV, L.M.

Carbodiimide method for the condensation of carbohydrates with amino acids. Zhur. VKHO 6 no.2:228-229 '61. (MIRA 14:3)

1., Institut khimii prodnykh soyedineniy AN SSSR.  
(Carbohydrates) (Carbodiimide) (Amino acids)