L 19006-65 EWT(m)/EPF(c)/EPR/EWP(j) Pc-4/Pr-4/Ps-4 AFWL/SSD RM/WW

[illegible]

[illegible] polysiloxane, silicoorganic polymer, [illegible] [illegible] repeated [illegible]

[illegible]

tensation

[illegible] Microstructural changes during heating in air at [illegible] and 400C [illegible] roscopy at 1:10,000 magnification [illegible] specimens [illegible]

[illegible]

1/2

CHUKARDIN, G. B.

CHUKARDIN, G. B. - "The connection between breathing and the movement of racing skis, and work on breathing in practice skiing." Leningrad, 1955. State Order of Lenin and Order of Labor Red Banner Inst of Physical Culture imeni P. F. Lesgaft. (Dissertations for degree of Candidate of Pedagogical Sciences.)

SO: Knizhnaya letopis', No 48. 26 November 1955. Moscow.

S/035/62/000/010/066/128
A001/A101

AUTHOR: Chukarin, N. A.

TITLE: The influence of thermonuclear reaction on relative abundance of light nuclei

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 69, abstract 10A496 ("Tr. Rostovsk.-n/D. in-ta s.-kh. mashinostr.", 1960, no. 14, 103 - 115)

TEXT: The author plots the curves showing a correlation of abundances of light nuclei with inverse values of neutron capture cross section and energy liberating at radiative proton capture. Various possibilities of explaining observed abundances by means of thermonuclear reactions are analyzed. The best results follow from the assumption that nuclei were formed by capturing neutrons generated by photonuclear reactions. There are 25 references.

D. Frank-Kamenetskiy

[Abstracter's note: Complete translation]
Card 1/1

CHUKARIN, N. N.

USSR /Chemical Technology. Chemical Products and Their Application I-10

Pesticides

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31347

Author : Bezruchenko N. Z., Chukarin N. N.

Inst : Azov - Black Sea Agricultural Institute

Title : Chemical Methods for the Control of Ragweed

Orig Pub: Sb. nauch.-issled. rabot Azovo-Chernomor. s.-kh. in-t, 1956, 14, 125-134

Abstract: To control ragweed tests were carried out with Na-salt of 2,4-D (I), I with addition of OP-7, and with butyl ester of 2,4-D (II). I gave better results, in comparison with II. Use of I with a wetting agent is of no particular advantage.

Card 1/1

CHUKARINA, K. A.

"Electroencephalographic Investigation of Experimental Neuroses." Cand Biol Sci, Rostov-on-Don State U, Rostov-on-Don, 1953. (RZhBiol, No 8, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

CHUKARINA, K.A.
USSR/Medicine - Physiology FD-2450

Card 1/1 Pub 33-1/24

Author : Chukarina, K. A.

Title : Changes of the electrical activity of the brain in experimental neuroses

Periodical : Fiziol. zhur. 2, 161-167, Mar-Apr 1955

Abstract : There is a relationship between the EEG in dogs and the state of C.N.S. excitability: the fast frequency oscillations are prevalent during a state of excitation and the slow oscillations in a state of inhibition. In the beginning of experimental neurosis, produced by Pavlov's procedure, spikes appear which later usually go over into slow waves. Graphs; tables. Ten references, all USSR (5 since 1940).

Institution: Chair of Human and Animal Physiology of the University imeni V. M. Molotov, Rostov-on-the-Don

Submitted : November 30, 1953

CHUKAROV, S.

Establishing method and system with the carding machine for carding whole fibers in worsted spinning. p.43. LEKA PROMISHLENOST. (Ministerstvo na lekata i khranitelnata promishlenost) Sofiia. Vol. 5, no. 6, 1956

SOURCE: East European Accessions List, (EEAL), Library of Congress, Vol. 5, no. 12, December 1956

Chukarov, S.

Establishing the correct technique for spinning yarn No. 36/2 for serge in a mixture of wool with dralon and perlon. p.21

TEKSTILNA PROMISHLENOST, Sofiia, Bulgaria, Vol. 8, no. 4, 1959

Monthly list for East European Accessions (EEAI) LC. Vol. 8, no.10, Oct. 1959
Uncl.

NIKOLOV, Georgi, inzh.; CHUKAROV, Stojan

Converters in the worsted spinning mills in Poland.
Tekstilna prom 12 no.5:39-41 '63.

CHUKAROV, St., nauchen sutrudnik; [redacted]ANKOVSKI, G., nauchen sutrudnik
MASLARSKA, R., inzh., nauchen sutrudnik; SREBROV, B., d-r,
nauchen sutrudnik

Introduction of polyester fibers in the wool branches. Trud
Inst tekstil prom 4:49-70 '63.

1. Scientific Research Institute for the Textile Industry.

NIKOLOV, Georgi, inzh.; SREBROV, Boris, d-r; CHUKAROV, Stoian; SHKODREV, Vasil

Use of polyacrylonitrile fibers for interlock knitwear. Pt. 2. Tekstilna prom 12 no. 6:22-24 '63.

CHUKASHEV, G.V., aspirant

Material on microsporon infection of domestic animals. Trudy VNIIVSE 12:341-354 '57. (MIRA 11:12)
(Dermatomycosis)

CHUKASHEV, G.V., aspirant

Microsporum infection in domestic animals and its control.
Veterinariia 35 no.12:48-49 D '58. (MIRA 11:12)

1. Moskovskaya gorodskaya veterinarno-sanitarnaya stantsiya.
(Ringworm)

CHUKASHEV, G. V., Cand Vet Sci —(diss) "Research on the microscopy of domestic animals," Moscow-Kuz'minki, 1960, 19 pp (All-Union Institute of Experimental Veterinary - VASKhNIL) (KL, 36-60, 117)

CHUKASHEV, Yu., elektromekhanik

Marine electric power plant of the "Arkhangel'skles"-type lumber carrier. Mor. flot 23 no.5:26-28 '63. (MIRA 16:9)

1. Teplokhod "Bryanskles."

(Electricity on ships)
(Lumber—Transportation)

YANCHEVSKAYA, Ye.A., inzh.-konstruktor; IZOTOVA, M.A., red.; CHUKASHEVA, A.D., spetsred.; BERLYANT, I.Ya., red.; ZAYTSEVA, L.A., tekhn.red.

[Designing coats for children and adolescents] Konstruirovanie pal'to dlia detei i podrostkov. Moskva, Vses.koop.izd-vo, 1960. 99 p. (MIRA 14:6)

1. TSentral'naya opytno-tekhnicheskaya shveynaya laboratoriya. 2. TSentralnaya opytno-tekhnicheskaya shveynaya laboratoriya (for Yanchevskaya). 3. Glavnyy inzh.TSentral'noy opytno-tekhnicheskoy shveynoy laboratorii (for Izotova).
(Coats)

CHUKASOV, A.D. (Moskva)

Factory operated retail stores. Shvein.prom. no.4:21-22 Jl-Ag '63. (MIRA 16:9)

CHUKAVIN, A.I., kand.arkhitektury

Precast reinforced concrete cornices with reinforced anchor supports. Biul.stroi.tekh. 12 no.9:13-14 S '55.
(MIRA 12:1)

(Cornices) (Precast concrete construction)

CHUKAVIN, I.G.

Geography of Jasminum revolutus Sims. Izv. Otd. biol. nauk AN Tadzh. SSR. no.1:104-106 '63. (MIRA 17:10)

1. Tadzhikskiy gosudarstvennyy universitet im. V.I. Lenina.

SIDORENKO, G.T.; CHUKAVINA, A.G.

Additions to the flora of Tajikistan. Dokl.AN Tadzh.SSR 2 no.3:49-51 '59. (MIRA 13:4)

1. Predstavleno akademikom AN Tadzhikskoy SSR P.N.Ovchinnikovym.
(Tajikistan—Botany)

CHUKAVINA, A. I.

Chikavina, A. I. - "Comparative leucocytosis in the clinic of crupous pneumonia," Trudy Medinstituta (Izhev. gos. med. in-t), Vol. VII, 1949, p. 216-19

SO: U-3950, 16 June 53, (Letopis, 'Zhurnal 'nykh Statey, No. 5, 1949).

CHUKAVINA, A. I.

Rappoport, D. M., Chukavina, A. I. and Yaroslavich, Yo. A. - "Clinical evaluation of the "dodder" weed," Trudy Medinstituta (Izhev. gos. med. in-t), Vol. VII, 1949, p. 259-62

SO: U-3950, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

CHUKAVINA, A.I., kand.med.nauk

Influence of pain on local changes in leucocytes. Preliminary report. Trudy Izhev.gos.med.inst. 13:376-381 '51. (MIRA 13:2)

1. Iz kafedry diagnostiki chastnoy patologii s terapiyey Izhevskogo meditsinskogo instituta. Zaveduyushchiy kafedroy prof. A.Ya. Gubergrits.

(LEUCOCYTES) (PAIN)

RAPPOPORT, D.M., dotsent; CHUKAVINA, A.I., assistent

Effect of Novo-Izhevsk mineral water on the gastrointestinal tract.
Trudy Izhev.gos.med.inst. 13:397-401 '51. (MIRA 13:2)

1. Iz kafedry fakul'tetskoy terapii Izhevskogo meditsinskogo instituta.
(NOVO-IZHEVSK (UDMURT A.S.S.R.)--MINERAL WATERS)

CHUKAVINA, A.I.

EXCERPTA MEDICA Sec.6 Vol.10/10 Internal Medicine Oct56

6275. TCHUKAVINA A.I. Med. Inst., Isheff. *Local leucocytosis due to pain (Russian text) TER. ARKH. 1955, 27/5 (74-80) Tables 2*

Pain produces leucocytosis in the blood of the painful region. The difference between the leucocyte count in the painful region and that in other areas increases with the severity of the pain.

Dvořák - Brno

OVCHINNIKOV, P.N.; CHUKAVINA, A.P.

New species of rice grass from Tajikistan. Izv.Otd.est.nauk AN Tadzh.SSR no.10:57-58 '55. (MLRA 9:10)

1. Institut botaniki AN Tadzhikskoy SSR.
(Tajikistan--Grasses)

OVCHINNIKOV, P.N.; CHUKAVINA, A.P.

New varieties of meadow grass (Poa L.) from Tajikistan. Izv. Otd. est. nauk AN Tadzh.SSR no. 17:37-44 '56. (MIRA 11:8)

1. Institut botaniki AN Tadzhikskoy SSR.
(Tajikistan--Meadow grass--Varieties)

OVCHINNIKOV, P.N.; CHUKAVINA, A.P.

A new feather grass (Stipa jagnobica Ovcz. et Czuk.) from Tajikistan.
Izv. Otd. est. nauk AN Tadzh.SSR no. 17:51-52 '56. (MIRA 11:8)

1. Institut botaniki AN Tadzhikskoy SSR.
(Tajikistan--Feather grass)

CHUKAVINA, A. P.

IKONNIKOV, S.S.; ISMAILOV, M.; KNORRING, I.G.; KOROLEVA, A.S.; KUDRYASHEV, S.N.; MALEYEV, V.P.; MASLENNIKOVA, T.I.; NEVSKIY, S.A.; NIKITIN, V.A.; OVCHINNIKOV, P.N.; PLESHKO, S.I.; POPOV, N.G.; SIDORENKO, G.T.; CHUKAVINA, A.P.; SHIBKOVA, I.F.; BORISOVA, A.G., redaktor; VASIL'CHENKO, I.T., redaktor; NEUSTRUYEVA, O.E., redaktor; ZENDEL', R.Ye., tekhnicheskiy redaktor

[Flora of the Tajik S.S.R.] Flora Tadzhikskoi SSR. Moskva, Izd-vo Akad.nauk SSSR. Vol.1. [Pteridophyta - Gramineae] Paporotnikoobraznye-zlaki. Glav.red. P.N.Ovchinnikov. 1957. 547 p. (MIRA 10:9)
(Tajikistan--Botany)

CHUKAVINA, A.P.

Some critical notes on rushes in Tajikistan. Dokl. AN Tadzh. SSR 1 no.2:51-52 '58. (MIRA 12:1)

1.Botanicheskiy institut AN Tadzhikskoy SSR. Predstavlena akademikom AN Tadzhikskoy SSR P.N. Ovchinnikovym.
(Tajikistan--Rushes)

VVEDENSKIY, A.I.; GRIGOR'YEV, Yu.S.; KNORRING, I.G.; KRECHETOVICH, V.I.; OVCHINNIKOV, P.N.; FILATOVA, I.F.; CHUKAVINA, A.P.; ZENDEL', M.Ye., tekhn. red.

[Flora of the Tajik S.S.R.]Flora Tadzhikskoi SSR. Glav. red. P.N.Ovchinnikov. Moskva, Izd-vo AN SSSR. Vol.2.[Cyperaceae - Orchidaceae]Osokovye-Orkhidnye. 1963. 454 p. (MIRA 16:8)
(Tajikistan--Monocotyledons)

CHUKAYEV, D., doktor tekhn.nauk, prof.

Electric goods and household appliances ("Study of commercial products; Electric goods and household appliances" by V.G. Zaitsev. Reviewed by D. Chukaev). Sov. torg. 34 no.6:48-49 Je '61. (MIRA 14:7)
(Electric apparatus and appliances)
(Zaitsev, V.G.)

CHUKAYEV, D. S.

Elektrosnabzheniye gorodov (Municipal electrictty supply) Moskva, Izd-vo Ministerstva Kommunal'nogo Khozyaystva RSFSR, 1952.
350 p. illus., diagrs.
"Literatura": p. 347-(348)

CHUKAYEV, D. S.

"Electrical Household Devices," Electricity, Publ. by the Printing House of the Govt. Energy (Electrical) Publ. House, in Moscow, 1952.

CHUKAYEV, D.S.

[Domestic use of electricity] Elektrichestvo v domashnem bytu. Moskva, Gos. energ. izd-vo, 1953. 110 p. (MLRA 6:11)
(Electric apparatus and appliances, Domestic)

CHUKAYEV, D.S.; VOLOTSKOY, N.V. [authors]; SERBINOVSKIY, G.V., inzhener; IOKHVIDOV, E.S., inzhener [reviewers].

"Electric power supply of cities." D.S.Chukaev. "Electric installations in residential homes." N.V.Volotskoi. Reviewed by G.V.Serbinovskii, E.S. Iokhvidov. Elektrichestvo no.8:94-96 Ag '53. (MLRA 6:8)
(Electric power distribution) (Chukaev, D.S.) (Volotskoi, N.V.)
(Electric wiring, Interior)

CHUKAYEV, D.S. [author].

Electricity of everyday life. ("Electricity in the household." D.S.Chukaev. Review.) Znan.sila no.10:35 O '53. (MLRA 6:10)
(Household appliances, Electric) (Chukaev, D.S.)

CHUKAYEV, Dmitriy Sergeyevich; ISLANKINA, T.F., redaktor; DMITRIYEVA, K.V., tekhnicheskiy redaktor

[New kinds of electric appliances] Novye elektricheskie pribory. Moskva, Izd-vo "Znanie," 1954. 23 p. (Vses. ob-vo po rasprostraneniiu polit. i nauchn. znanii, Seriia 4, no. 38) (MIRA 8:6)
(Electric apparatus and appliances, Domestic)

CHUKAYEV, D. S.

USSR/Electricity

Card 1/1

Author : Chukaev, D. S., Cand. in Tech. Sciences

Title : Electricity in everyday life

Periodical : Nauka i Zhizn' 21/2, insert page and 17-19, Feb/1954

Abstract : In the home, electricity is used for lamps of various kinds, hot plates, plug-in coffee pots and teakettles, vacuum cleaners, refrigerators, washing machines, smoothing irons, sterilizers, etc. At the present time factories are turning out yearly 300,000 sterilizers, half a million vacuum cleaners and 4,375,000 smoothing irons, which is nine times as many as in 1950.

Institution : .....

Submitted : .....

[S]

CHUKAYEV, D., kandidat tekhnicheskikh nauk.

Let's talk about irons. Tekh.mol. 22 no.5:34-35 My '54. (MLRA 7:6)
(Electric irons)

CHUKAYEV, D. S.

CHUKAYEV, D. S. --"Investigation of the Problems of Mechanization and Electrification of the Communal-Housing Services to the Population." Min Higher Education USSR. Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev. Moscow, 1955. (Dissertation for the Degree of Doctor in Technical Science)

SO Knizhanay letopis'
No 2, 1956

CHUKAYEV, Dmitriy Sergeyevich; MINASYAN, Ye.A., redaktor; KONYASHINA, A. tekhnicheskiy redaktor.

[Electric household appliances] Elektricheskie bytovye pribory. Moskva, Izd-vo Ministerstva kommunal'nogo khozyaistva RSFSR, 1955. 87 p. (MLRA 8:11)

(Household appliances, Electric)

Name: CHUKAYEV, Dmitriy Sergeyevich

Dissertation: Study of problems of mechanization and electrification of public services

Degree: Doc Tech Sci

Affiliation: /not indicated/

Defense Date, Place: 27 Dec 55, Council of Moscow Order of Labor Red Banner Engineering-Construction Inst imeni Kuybyshev

Certification Date: 29 Jun 57

Source: BMVO 18/57

CHUKAYEV, D.S.

IVANOV, Georgiy Konstantinovich; DOBRYNIN, Ivan Filimonovich; CHUKAYEV, D.S., nauchnyy red.; KVELCH, N.Ye., red.; TSIRUL'NITSKIY, N.P., tekhn.red.

[Electric appliances for household use] Elektroizdeliia v domashnem bytu. Moskva, Vses.koop.izd-vo, 1957. 107 p. (MIRA 11:1)

(Electric apparatus and appliances)

GAN, Maksimilian Bernardovich; CHUKAYEV, Dmitriy Sergeyevich; KAGANOVA, A.A., red.; SUDAK, D.M., tekhn.red.

[Electrical equipment for public eating establishments] Elektricheskoe oborudovanie predpriiatii obshchestvennogo pitaniia. Moskva, Gos. izd-vo torg. lit-ry, 1958. 298 p. (MIRA 12:2)
(Restaurants, lunchrooms, etc.--Electric equipment)

CHUKAYEV, Dmitriy Sergeyevich; SOKOLOV, D.V., inzh., nauchnyy red.; SOKOLOV, B.A., inzh., nauchnyy red.; LYTKINA, L.S., red.izd-va; GORDEYEV, P.A., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Electric power supply, electrical equipment, and automatic control] Elektrosnabzhenie, elektrooborudovanie i avtomatika. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 439 p. (MIRA 13:2)
(Electric engineering) (Automatic control)

CHUKAYEV, Dmitriy Sergeyevich; SHCHERBAKOV, Vsevolod Sergeyevich; TSIPERSON, A.L., red.; BABICHEVA, V.V., tekhn.red.

[Electric equipment for refrigeration compressor plants] Elektrooborudovanie kholodil'nykh kompressornykh ustanovok. Moskva, Gos.izd-vo torg.lit-ry, 1959. 220 p. (MIRA 12:5)
(Refrigeration and refrigerating machinery)
(Electric engineering)

VYSHELESSKIY, A.N., prof.; CHUKAYEV, D.S., prof.; KOMAROV, N.S., prof.; SENATOV, I.G., dots.; RYABOV, V.I.; NEUGODOV, Ye.V.; GOROZHANKIN, M.G.; GAN, M.B., dots., kand. tekhn. nauk; retsenzent; RAYSKIY, I.D., dots., retsenzent; LIKHAREVA, N.V., kand. tekhn. nauk, retsenzent; SHCHEGLOV, V.P., kand. tekhn. nauk, retsenzent; RUDOMETKIN, F.I., inzh., retsenzent; BAULIN, V.A., red.; EL'KINA, E.M., tekhn. red.

[Equipment of public food service establishments; electrical, refrigerating, and sanitary equipment] Oborudovanie predpriiatii obshchestvennogo pitaniia; elektricheskoe, kholodil'noe i sanitarno-tekhnicheskoe oborudovanie. Moskva, Gos.izd-vo torg. lit-ry, 1961. 447 p. (MIRA 15:3)

(Restaurants, lunchrooms, etc.--Equipment and supplies)

GUBENKO, T.P.; DEVYATKOV, N.D.; DOMANSKIY, B.I.; DONSKOY, A.V.; YEFREMOV, I.S.; ZHEZHERIN, R.P.; KAGANOV, I.L.; MANDRUS, D.B.; NETUSHIL, A.V.; PODGURSKIY, Ye.L.; ROZENFEL'D, V.Ye.; SVENCHANSKIY, A.D.; CHUKAYEV, D.S.; SHLYAPOSHNIKOV, B.M.

Professor G.I. Babat; obituary. Elektrichestvo no.1:94 Ja '61. (MIRA 14:4)

(Babat, Georgii Il'ich, 1911-1961)

CHUKAYEV, D.S., doktor tekhn.nauk

Electrification in the life of the rural population. Mekh.i elek. sots.sel'khoz. 19 no.5:6-7 '61. (MIRA 14:10)
(Rural electrification)

CHUKAYEV, Dmitriy Sergeyevich; CHERVYAKOVA, L.S., red.; VOLKOVA, V.G., tekhn. red.

[Electrical equipment of public eating establishments] Elektricheskoe oborudovanie predpriiatii obshchestvennogo pitaniia. Moskva, Gostorgizdat, Pt.1. 1963. 232 p. (MIRA 16:11)
(Restaurants, lunch rooms, etc.--Electric equipment)

CHUKAYEV, D.S., doktor tekhn. nauk, prof.

Using electric power for domestic cooking. Nov. tekh. zhil.-kom. khoz.: Elek. i tepl. gor. no.5:44-63 '64.
(MIRA 18:2)

1. Vsesoyuznyy zaochnyy inzhenerno-stroitel'nyy institut.

Chukayev, K. A.

USSR/ Engineering - Mechanics

Card 1/1 Pub. 128 - 7/35

Authors : Chukayev, K. A., Engineer

Title : On designing the scavenging of two-cycle engines

Periodical : Vest. mash. 35/3, 14 - 22, Mar 1955

Abstract : A study is presented of the problem of designing a scavenging system in accordance with the theory of similarity and the essence of scavenging itself. Formulas are compiled for determining the initial pressure of the thrust and the exhaust pressure, the number of revolutions and compensation for their noncoincidence. The subject is broken down into subdivisions: theoretical basis for designing scavenging, designing without the use of Reynolds numbers, designing the exhaust process, convergence criteria, and means of compensating the deviation in the number of revolutions. Three Soviet references (1934-1949).

Institution : .....

Submitted : .....

SOV/115-58-5-17/36

AUTHOR: Chukayev, K.A.

TITLE: The Thermodynamic Method of Determining the Average Mass Temperature in Gas Streams (Termodinamicheskiy metod opredeleniya srednemassovoy temperatury v gazovykh potokakh)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 5, pp 37-40 (USSR)

ABSTRACT: The method suggested in this paper for determining the average mass temperature of gas streams, in contrast to the current ones, which are based on thermo-dynamic connections of gas parameters of one and the same kinetic system in two cross sections, is based on the mutual connection of gas parameters of two kinetic systems in the same cross section of the pipe. When determining temperatures in this way, the influence of all stabilizing factors and of pipe configurations before the section under study, on the value of the temperature which is being determined, is excluded. The paper carries the formulae used in computation, beginning

Card 1/2

The Thermodynamic Method of Determining the Average Mass Temperature in Gas Streams

with the formula for the velocity of adiabatic gas outflow, from the output nozzle taking into account its initial flow velocity. According to the results of measurements, the average mass temperature of the gas stream was determined with thermo-couples from the equation for thermal balance assuming that c_p - idem. The paper then analyzes the equations derived and explains the method used. The proposed method is simple, quick and accurate. Any temperature of a heated gas mass can be measured. The possibility of accurately measuring the parameters, which determine the computational formulae, allows the temperature to be determined quite precisely. There are 3 Soviet references.

Card 2/2

CHUKAYEV, N. A. (Grad Stud)

Dissertation: "An Investigation of a Contactless Control System for Voltage Regulators in Rural Electrical Networks." Cand Tech Sci, Joint Sci Council of the All-Union Sci Res Institute for the Mechanization of Agriculture (VIM) and the All-Union Sci Res Institute for the Electrification of Agriculture (VIESKh), 29 Jun 54. (Vechernyaya Moskva, Moscow, 18 Jun 54)

SO: SUM 318, 23 Dec 1954

CHUKAYEV, S.S.

Liquefied oil gases for household use. Gaz.prom.no.4:13:17 Ap '56.
(MLRA 10:1)
(Liquefied petroleum gas)

CHUKAYEVA, V. N.

Reprocessing of soybean seeds for production of edible cake and oil. V. P. Rzhekhin, N. I. Pogonkina, and V. N. Chukaeva. *Maslobolno-Zhirovaya Prom.* 21, No. 6, 9-13 (1955).—Data are presented to show that in order to obtain high-quality soybean cake and oil, it is necessary to raise moisture content of crushed seed meats (I) to 12.5–13% and age I for 4 hrs. The temp. of I during cooking and pressing should be 95 and 105°, resp. Vladimir N. Krukovsky

(2)

NESTERIN, M.F.; GHUKAYEVA, V.N.

Course of radiation sickness and the status of the secretory function of the intestine in dogs when a diet of quantitatively varying fat composition is used.
(RADIATION SICKNESS) (INTESTINES) (FATS)

MIKHLIN, E.D.; GURVICH, A.I.; CHUKAYEVA, V.N.

Method for determining small amounts of acetone in oils. Trudy VNIVI 8:103-104 '61. (MIRA 14:9)

1. Laboratoriya po tekhnologii pererabotki prirodnogo syr'ya Vsesoyuznogo nauchno-issledovatel'skogo vitaminnogo instituta.
(Acetone) (Oils and fats--Analysis)

EXCERPTA MEDICA Sec 4 Vol 12/2 Med. Micro. Feb 59

578. BIOLOGY OF BACTERIOPHAGES. FEATURES OF LYSOGENIC ACTIVITY OF COLI PHAGE 'H DELTA' AFTER A PROLONGED SYMBIOSIS WITH 'COLI M 1920' (Russian text) - Chuke M., Nestoresku N., Popovich M. and Tulpan G. - ZH. MED. NAUK AKAD. RNR 1956, 1/2 (61-74)

Bordet and Chuke obtained in 1920 a lysogenic culture, 'coli M', after the action of bacteriophage 'H Delta' on a susceptible coli culture. The authors studied the properties of this bacteriophage after 34 years of 'symbiosis' with the cells of 'coli M'; during this time the bacterial culture was transferred 347 times in succession. The polyvalent characteristics of the bacteriophage which lysed a number of Salmonella and Shigella cultures in 1920-21 were found to be wholly preserved after the long symbiosis. The bacteriophage from 'coli M' culture was capable of lysogenizing a number of Salmonella and other bacterial cultures, among them

also S. typhi O-901. Nine out of 12 bacteriophages isolated from subcultures of the lysogenic variant O-901 retained their polyvalency completely; 3 had lost the capacity to lyse the strain 'coli Brz. R'. (S)

CHUKE, M.

RUMANIA / Virology. Bacterial Viruses (Phages) E-1

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 4993

Author : Chuke, Nestoresku, Iliesku

Inst : Not given

Title : Frequency of Discovery of Lysogenic Strains of Shigella Flexneri and Their Lysogenic Ability.

Orig Pub : Studii si cercetari inframicrobiol., microbiol. si parazitol. Acad. RPR, 1956, 7, No 3-4, 471-476

Abstract : Of 158 freshly isolated tested strains, 36.08% were found to be lysogenic, 50.63% were converted into lysogenic ones by the effect of anti-dysentery phage.

Card : 1/1

CHUKERIN, N.N.

BEZRUCHENKO, N.Z.; CHUKERIN, N.N.

Ragweed (Ambrosia artemisiaefolia L.). Bot.zhur. 41 no.5:712-713 My '56. (MLRA 10:7)

1. Azovo-Chernomorskiy sel'sko-khozyaystvennyy institut, st. Persianovka, Rostovskoy oblasti.
(Ragweed)

CHUKREYEV, N.M.

M.V.Lomonosov on the inorganic origin of petroleum. Izv. AN Kazakh. SSR. Ser.geol. 22 no.2:68-69 Mr-Ap '65.

(MIRA 18:5)

1. Aktyubinskiy otdel Instituta geologii i geofiziki Gosudarstvennogo geologicheskogo komiteta SSSR, Aktyubinsk.

GYUL'BUDAGYAN, L.V.; CHUKHADZHYAN, E.O.

New derivatives of 5-pyrazolone. Izv.AN Arm.SSR.Khim.nauki 15 no.1: 101-105 '62. (MIRA 15:7)

1. Yerevanskiy gosudarstvennyy universitet, kafedra organicheskoy khimii.

(Pyrazolinone)

VARTANYAN, S.A.; CHUKHADZHYAN, G.A.

Chemistry of vinylacetylene. Report No.19: Condensation of vinylacetylenic hydrocarbons with ketones in the presence of sodium hydroxide powder. Izv.AN Arm.SSR.Khim.nauki 12 no.6:413-416 '59. (MIRA 13:7)

1. Institut organicheskoy khimii AN ArmSSR.
(Hydrocarbons) (Ketones) (Condensation products)

SOV/79-29-2-21/71

AUTHORS: Matsoyan, S. G., Chukhadzhyan, G. A., Vartanyan, S. A.

TITLE: Chemistry of Vinyl Acetylene (Khimiya vinilatsetilena). XI. On the Mechanism and the Direction of the Hydration of Vinyl Ethynyl Carbinol Ether (XI. O mekhanizme i napravlennosti gidratatsii efirov viniletinilkarbinolov)

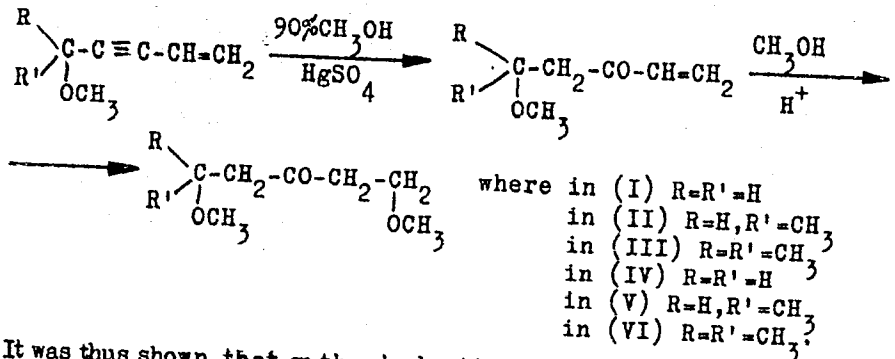
PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 451-457 (USSR)

ABSTRACT: In follow-up to an earlier paper by Nazarov and Matsoyan, the authors continued the hydration of vinyl ethynyl carbinol ether in acetic acid solutions with a view to clarifying the affiliation arrangements of the water elements to the triple bond. It was found that the ethers of vinyl ethynyl carbinols, unlike their esters, are smoothly transformed into β-keto derivatives in alcohol solutions in the presence of $HgSO_4$. Thus, for example, on heating the methyl ethers of vinyl ethynyl carbinol (I), methyl vinyl ethynyl carbinol (II) and dimethyl vinyl ethynyl carbinol (III) with 90% methanol in the presence of $HgSO_4$, the corresponding β-methoxy ketones (IV)-(VI) are formed according to the scheme

Card 1/3

Chemistry of Vinyl Acetylene. XI. On the Mechanism and the Direction of the Hydration of Vinyl Ethynyl Carbinol Ether

SOV/79-29-2-21/71



where in (I) R=R'=H
in (II) R=H,R'=CH_3
in (III) R=R'=CH_3
in (IV) R=R'=H
in (V) R=H,R'=CH_3
in (VI) R=R'=CH_3.

It was thus shown that on the hydration of the vinyl ethynyl carbinol ethers under above conditions the affiliation of water to the triple bond takes place in the direction of the formation of β-keto derivatives. Hydration of both acetate and ether of methyl ethyl carbinol under above conditions was found to proceed in one direction with the formation of the β-keto derivative. It was shown that the acetate of vinyl ethynyl carbinol,

Card 2/3

Chemistry of Vinyl Acetylene. XI. On the Mechanism and the Direction of the Hydration of Vinyl Ethynyl Carbinol Ether.

SOV/79-29-2-21/71

like the other acetates of the secondary and tertiary vinyl ethynyl carbinols is hydrated in the direction to the α-keto derivatives. It is attempted to make the above hydration direction of the ethers of vinyl ethynyl and methyl ethynyl carbinols dependent on the electrophilic affiliation arrangement of the sulfuric acid mercury (of the water elements) to the triple bond. There are 17 references 15 of which are Soviet.

ASSOCIATION: Khimicheskiy institut Akademii nauk Armyanskoy SSR (Chemical Institute of the Academy of Sciences, Armyanskaya SSR)

SUBMITTED: December 7, 1957

Card 3/3

S/079/60/030/04/33/080
B001/B016

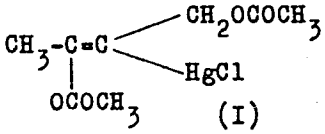
AUTHORS: Matsoyan, S. G., Chukhadzhyan, G. A., Vartanyan, S. A.

TITLE: Reaction of Acetylene Carbinols With Acetic Acid in the Presence of Mercuric Acetate, and the Formation Mechanism of Acetoxy Ketones

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1202-1207

TEXT: In continuation of the papers by I. N. Nazarov (Ref. 1) and G. F. Hennion (Ref. 2) dealing with the synthesis of acetyl carbinol acetates, the authors of the present paper performed a more convenient synthesis of acetoxy ketones by boiling the acetic acid solutions of acetylene alcohols in the presence of mercuric acetate, with subsequent fractionation of the reaction mixture. The corresponding acetates of the tertiary acetyl carbinols thus resulted from dimethyl-, methyl-ethyl-, methyl-isopropyl-, diisopropyl-, methyl-phenyl-ethynyl carbinol as well as from 1-ethynyl-cyclohexanol-1. By heating the disubstituted butin-2-ol-1 with glacial acetic acid in the presence of mercuric acetate, methyl-β-acetoxy-ethyl ketone is formed. On reaction of the acetate of butin-2-ol-1

with mercury salt, the addition product (I) was separated:



(I)

Scheme 1 illustrates the mechanism of this reaction which is confirmed by schemes 2 and 3. Methyl-β-acetoxy-ethyl ketone (V) is obtained, in this connection, as end product. The formation mechanism of the acetates of acetyl carbinols from monosubstituted acetylene alcohols on reaction with acetic acid in the presence of mercuric acetate may be illustrated in steps by scheme 5. All resultant α-acetoxy ketones were hydrolyzed by aqueous alcoholic alkali lye to give the corresponding α-keto alcohols (Table). There are 1 table and 10 references, 6 of which are Soviet.

Reaction of Acetylene Carbinols With Acetic Acid in the Presence of Mercuric Acetate, and the Formation Mechanism of Acetoxy Ketones

S/079/60/030/04/33/080
B001/B016

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Armyanskoy SSR (Institute of Organic Chemistry of the Academy of Sciences, Armyanskaya SSR)

SUBMITTED: April 20, 1959

Card 3/3

CHUKHADZHYAN, G.A.; MELIKYAN, R.A.; BABAYAN, Sh.A.; VARTANYAN, S.A.

Condensation of formaldehyde with acetylene. Synthesis of 2-butyne-1,4-diol. Izv. AN Arm.SSR. Khim.nauki 14 no.5:445-449 '61. (MIRA 15:1)

1. TSentral'naya zavodskaya laboratoriya zavoda imeni S.M. Kirova i Institut organicheskoy khimii AN Armyanskoy SSR.
(Butynediol)

VARTANYAN, S.A.; CHUKHADZHYAN, G.A.; MELIKYAN, R.A.; BABAYAN, Sh.A

Laboratory method of preparing primary-secondary and primary-tertiary acetylenic glycols. Izv.AN Arm.SSR.Khim.nauki 15 no.1:45-51 '62.
(MIRA 15:7)

1. TSentral'naya zavodskaya laboratoriya zavoda imeni S.M. Kirova i Institut organicheskoy khimii AN Armyanskoy SSR.
(Glycols)

VARTANYAN, S.A.; CHUKHADZHYAN, G.A.

Chemistry of vinylacetylene. Report No.29: Synthesis and conversions of dialkyl- Δ^{1}-cyclopentenylethynylcarbinols. Izv.AN ArmSSR.Khim.nauki 15 no.1:53-61 '62. (MIRA 15:7)

1. Institut organicheskoy khimii AN Armyanskoy SSR.
(Butenyne) (Alcohols)

CHUKHADZHYAN, G.A.; VOSKANYAN, S.M.; MIGRANYAN, T.Sh.; KARAPETYAN, N.G.

Copolymers of acetaldehyde. Izv. AN Arm.SSR.Khim.nauki 17 no.4:466 '64. (MIRA 18:6)

1. Yerevanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta sinteticheskogo kauchuka im. S.V.Lebedeva.

L 4148-66 EWT(m)/EPF(c)/EWP(j)/T RPL WW/RM

ACCESSION NR: AP5023917 UR/0171/65/018/004/0371/0378

542.952.6+547.281.2+547.384

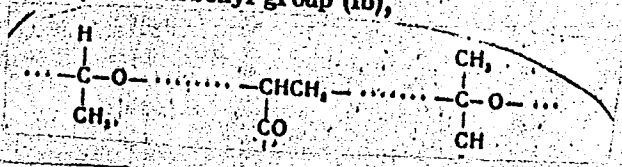
AUTHOR: Karapetyan, N. G.; Voskanyan, S. M.; Tonoyan, O. A.; Chukhadzhyan, G. A.

TITLE: Copolymerization of acetaldehyde with methyl vinyl ketone

SOURCE: AN ArmSSR. Izvestiya. Khimicheskiye nauki, v. 18, no. 4, 1965, 371-378

TOPIC TAGS: acetaldehyde, ketone, copolymerization

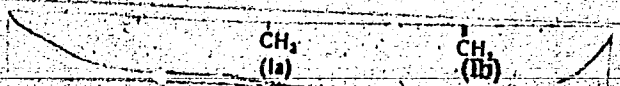
ABSTRACT: In connection with the problem of increasing the stability of polyacetaldehyde, the authors studied the copolymerization of acetaldehyde with methyl vinyl ketone at -78C in the presence of organometallic catalysts (1:1 mixture of butyllithium and triisobutylaluminum), and in the presence and absence of the radical polymerization inhibitor β-phenylnaphthylamine. The structure of the copolymers obtained was determined chiefly by IR spectra. The results suggest that methyl vinyl ketone copolymerizes with acetaldehyde at the vinyl group (Ia), the carbonyl group (Ib),



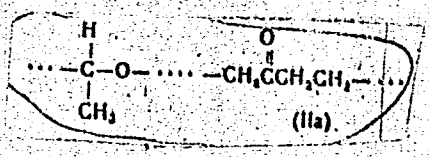
Card 1/3

L 11148-66

ACCESSION NR: AP5023917



and also involves migration of hydrogen (IIa):



In the presence of the radical polymerization inhibitor, the copolymerization involves primarily the migration of hydrogen; in its absence, it consists of steps Ia and Ib simultaneously. Distinct x-ray halos indicate the crystallinity of the chloroform-insoluble fractions of the acetaldehyde-methyl vinyl ketone copolymer obtained in the absence of β-phenylnaphthylamine. It is thus shown that one of the ways of increasing the stability of acetaldehyde polymers is to copolymerize acetaldehyde with other monomers. Orig. art. has: 3 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut polimernykh produktov (All-Union Scientific Research and Planning Institute of Polymer Products)

Card 2/3

L 4148-66

ACCESSION NR: AP5023917

SUBMITTED: 19Jun64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 002 OTHER: 007

Card 3/3

L 1779-66 EPA(s)-2/EWT(m)/EWP(j)/T RM

ACCESSION NR: AP5023919 UR/0171/65/018/004/0429/0430
541.64+547.339.2

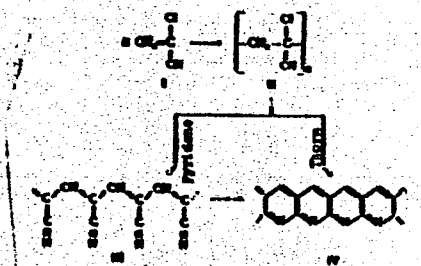
AUTHOR: Chukhadzhyan, G. A.; Kabalyan, Yu. K.; Petrosyan, V. A.

TITLE: Heat treatment product of poly(α-chloroacrylonitrile)

SOURCE: AN ArmSSR. Izvestiya. Khimicheskiye nauki, v. 18, no. 4, 1965, 429-430

TOPIC TAGS: organic semiconductor, semiconducting polymer

ABSTRACT: A polymer with a conjugated bond system, consisting of naphthapyridine rings, has been prepared by a simple and easy method:



Card 1/3

L 1779-66

ACCESSION NR: AP5023919

Heat treatment of poly (α-chloroacrylonitrile) at 150—250C caused quantitative elimination of HCl with simultaneous intramolecular cyclization of the polycyanovinylene (III) obtained to form a naphthapyridine type structure (IV). The polymer (IV) was a black powder insoluble in organic solvents or hot acids. The polymer is thermally stable; at 600C a small amount of gas (apparently, hydrogen) is evolved and then the polymer remains unchanged during prolonged heating (800—1000C). Measurements of the electrical properties of the pellet samples of the polymer were conducted at 25C. The data are shown in Table 1 of the Enclosure, which also gives data on some other semiconductors (earlier prepared) for comparative purposes. The data indicate that in electrical properties polymer IV approaches selenium. Orig. art. has: 1 formula and 1 table. [SM]

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut polimerov (All-Union Scientific Research and Design and Planning Institute of Polymers)

SUBMITTED: 27Feb65 ENCL: 01 SUB CODE: OC, GC

NO REF SOV: 001 OTHER: 001 ATD PRESS: 4112

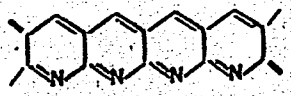
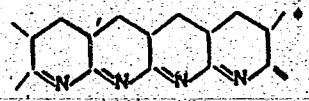
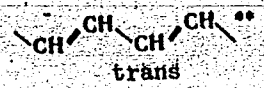
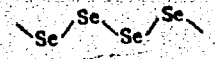
Card 2/3

L 1779-66

ACCESSION NR: AP5023919

ENCLOSURE: 01

Table 1.

Polymer	ρ (ohm cm)	E_A ev
IV 	$8 \cdot 10^6$	0.4—0.7
V 	$5 \cdot 10^{10}$	1.7
VI  trans	$2 \cdot 10^{11}$	1.65
VII 	10^3—10^4	0.02

* Thermal cyclization product of polyacrylonitrile

** Synthesized by polymerization of acetylene over Al $(150\text{-}C_4H_9)_3$:T_1Cl_4 at 20C in heptane.

L 21780-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6002549 (A) SOURCE CODE: UR/0286/65/000/023/0047/0047

AUTHORS: Karapetyan, N. G.; Chukhadzhyan, G. A.; Voskanyan, S. M.; Tonoyan, O. A.

ORG: none

TITLE: A method for obtaining polyacetaldehyde. Class 39, No. 176681

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 47

TOPIC TAGS: polymer, polymerization, polyacetaldehyde, catalytic polymerization, catalyst

ABSTRACT: This Author Certificate presents a preparative method for obtaining polyacetaldehyde by low-temperature polymerization of acetaldehyde in presence of catalysts. To increase the variety of catalysts, cation exchangers are used as catalysts.

SUB CODE: 11, 07/SUBM DATE: 22Oct64

Card 1/1 UDC: 678.622'22

ACC NR: AP7003784 (A) SOURCE CODE: UR/0426/66/019/010/0754/0759

AUTHOR: Karapetyan, N. G.; Movsisyan, G. V.; Voskanyan, S. M.; Chukhadzhyan, G. A.

ORG: All-Union Scientific Research and Design Institute of Polymers (Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut polimernykh produktov)

TITLE: Preparation of elastic polymers through cation polymerization of acetaldehyde

SOURCE: Armyanskiy khimicheskiy zhurnal, v. 19, no. 10, 1966, 754-759

TOPIC TAGS: polymerization, acetaldehyde, polymer, elastic polymer, cation polymerization, catalytic polymerization, synthetic rubber, ion exchange resin

ABSTRACT: A study was made of the polymerization of acetaldehyde using cation catalysts such as BF_3-etherate, H_2SO_4, $AlCl_3$, and SbF_3 at 7-8C to obtain elastic, rubber-like materials capable of vulcanization. The results obtained showed that the polymerization time was protracted, that the obtained polymers contained a large amount of low molecular impurities, and that the experimental results were difficult to reproduce. On the other hand when such ion exchange tars as the cation

Card 1/2 UDC: 541.64+547.281.2

ACC NR: AP7003784

exchanges KU-1, KU-1 "G", KU-5M, and KU-6 "G" were used as catalysts for acetaldehyde polymerization, elastic rubberoid polymers were obtained. With ion exchange tars the polymerization process is complete, lasting about 1—2 hours. The results are easily reproduced, the catalyst does not loose its activity after one operation, and is easily reclaimed. Orig. art. has: 1 figure and 2 tables. [Translation of authors' abstract] [SP]

SUB CODE: 11, 07, 20/ SUBM DATE: 10Jun65/ORIG REF: 002/OTH REF: 005/

Card 2/2

CHUKHANOV, A.F.

CHUKHANOV, A.F.

The over-all use of fuels in power engineering; summary of the first All-Union conference. Vest. AN SSSR 27 no.5:26-33 My '57. (MLRA 10:6)

1. Chlen-korrespondent Akademii nauk SSSR.
(Fuel) (Power engineering)

POPKOV, V.I.,otv.red.; VINTER, A.V., akademik, red. [deceased]; VEYTS, V.I., red.; PREDVODITELEV, A.S., red.; STYRIKOVICH, M.A., red.; CHUKHANOV, K.F., red.; BOGDANOVA, N.B., kand.tekhn.nauk, red.; KOZLOV, B.K., kand.tekhn.nauk, red.; LEBEDEV, M.M., kand.tekhn. nauk, red.; SUNDUKOV, I.N., kand.tekhn.nauk, red.; ANTRUSHIN, B.D., red.izd-va; DUBKOV, P.V., red.izd-va; ZUBKOV, P.I., red. izd-va; MOYZHES, S.M., red.izd-va; PRUSAKOVA, T.A., tekhn.red.

[Problems of power engineering; symposium dedicated to Academician G.M.Krzhizhanovskii] Problemy energetiki; sbornik posviashchaetsia akademiku G.M.Krzhizhanovskomu. Moskva, 1959. 851 p.
(MIRA 12:12)

1. Akademiya nauk SSSR. Energeticheskiy institut. 2. Chleny-korrespondenty AN SSSR (for Popkov, Veyts, Predvoditelev, Styrikovich, Chukhanov).
(Power engineering)

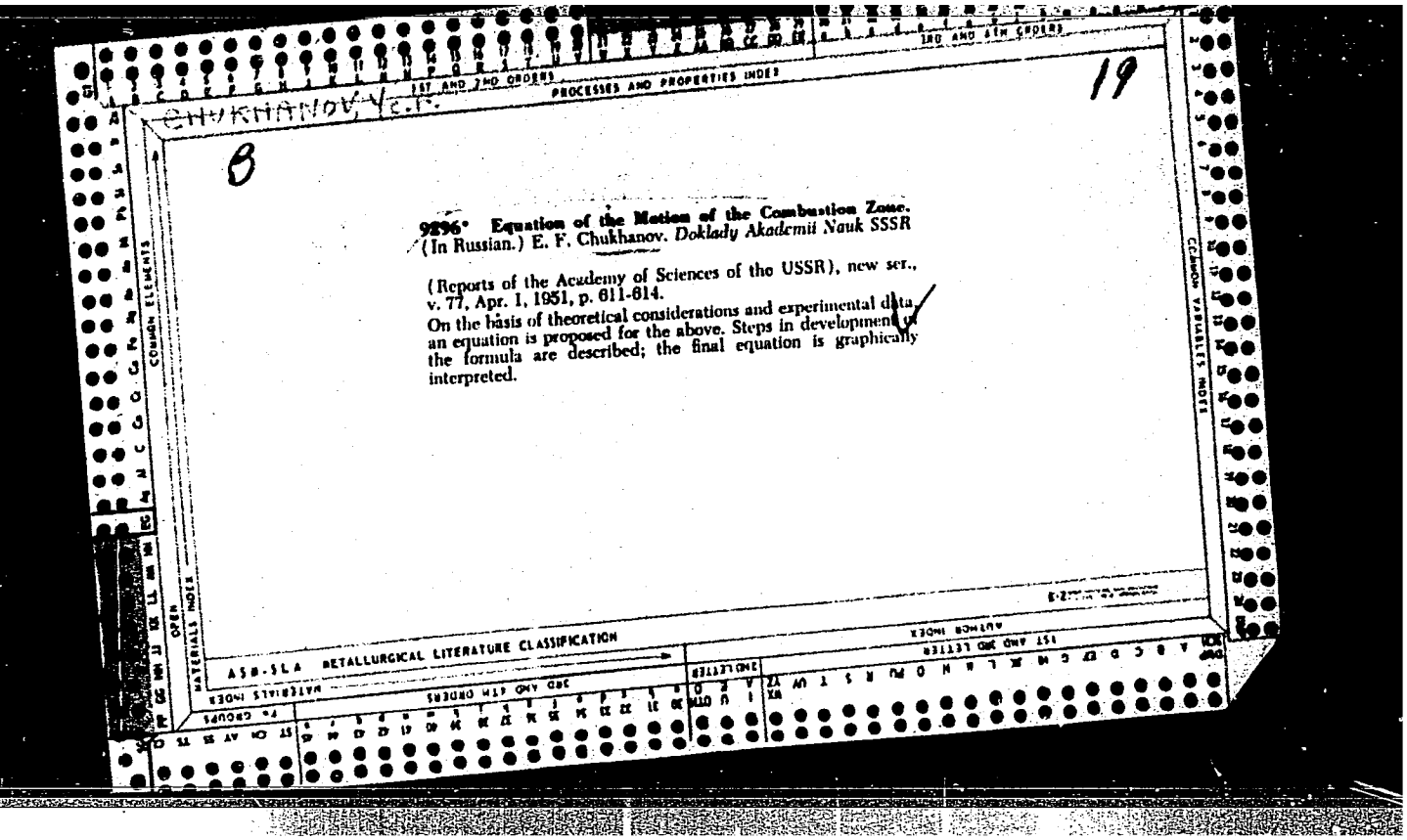
CHUKHANOV, N.F.

Teploobmen v usloviiakh "vnutrennei" i "vneshnei" zadachi. (Akademiia Nauk SSSR. Doklady. Novaia seriia, 1947, v. 55, no. 6, p. 501-504, diagr.)

Title tr.: The "interior" versus "exterior" problem in heat exchange. Also published in English in Comptes rendus de l'Academie des Sciences de l'URSS. Nouvelle serie, 1947, v. 55, no. 6, p. 497-500 (Q60.A52)

AS262.S3663 v.55

SO. Aeronautical Science and Aviation in the Soviet Union. Library of Congress, 1955.



CHUKHANOV, Ye. F.

8

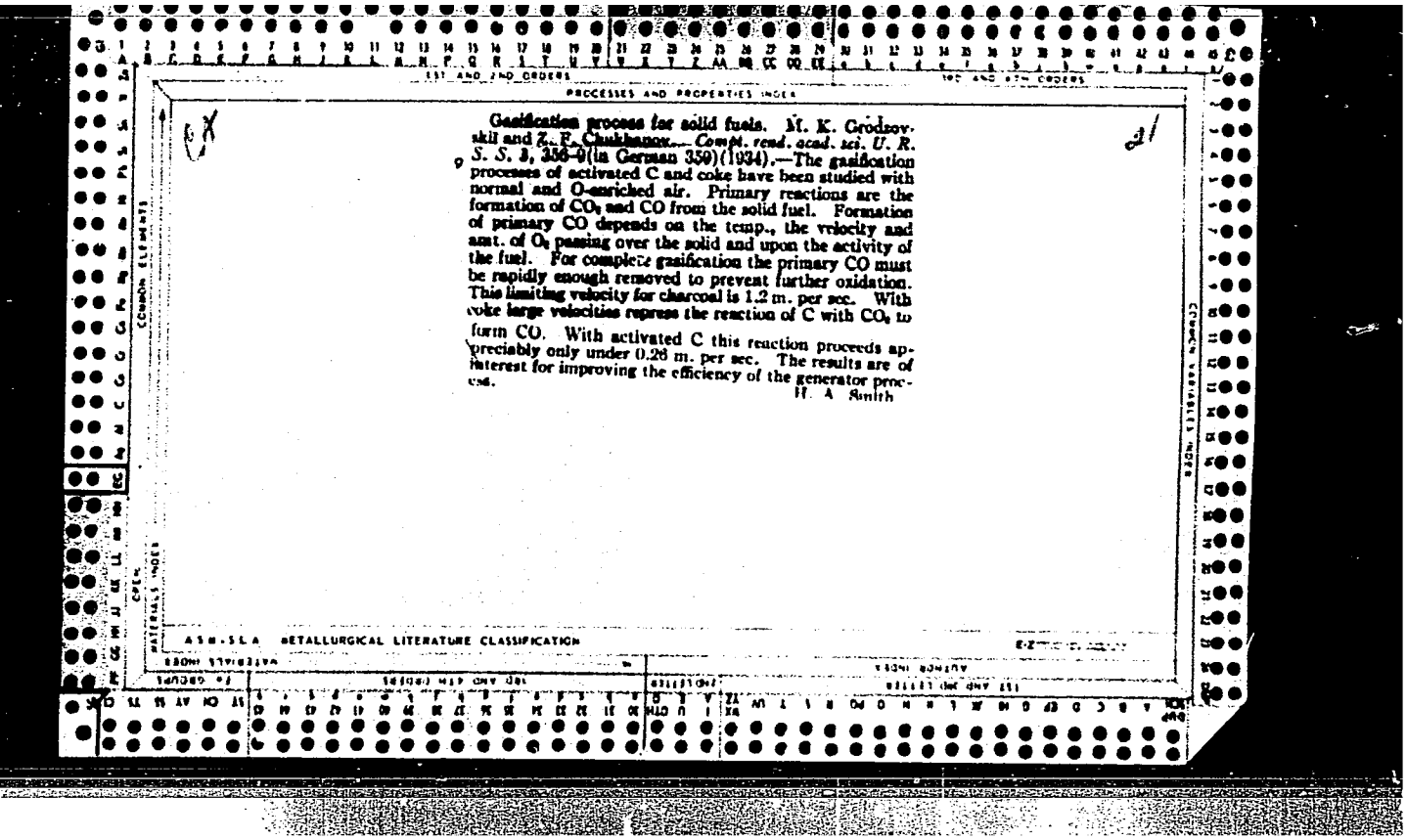
19

9296* Equation of the Motion of the Combustion Zone. (In Russian.) E. F. Chukhanov. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 77, Apr. 1, 1951, p. 611-614.

On the basis of theoretical considerations and experimental data, an equation is proposed for the above. Steps in development of the formula are described; the final equation is graphically interpreted.

ALAD'YEV, I.T.; ALEKSANDROV, B.K.; BAUM, V.A.; GOLOVINA, Ye.S.; GOL'DENBERG, S.A.; ZHIMERIN, D.G.; ZAKHARIN, A.G.; IYEVLEV, V.N.; KNORRE, V.G.; KOZLOV, G.I.; LEONT'YEVA, Z.I.; MARKOVICH, I.M.; MEYEROVICH, E.A.; MIKHNEVICH, G.V.; POPKOV, Z.I.; POPOV, V.A.; PREDVODITELEV, A.S.; PYATNITSKIY, L.N.; STYRIKOVICH, M.A.; TOLSTOV, Yu.G.; TSUKHANOVA, O.A.; CHUKHANOV, Z.F.; SHEYNDLIN, A.Ye.

Lev Nikolaevich Khitrin, 1907-1965; obituary. Izv. AN SSSR. Energ. i transp. no.2:159-160 Mr-Ap '65. (MIRA 18:6)

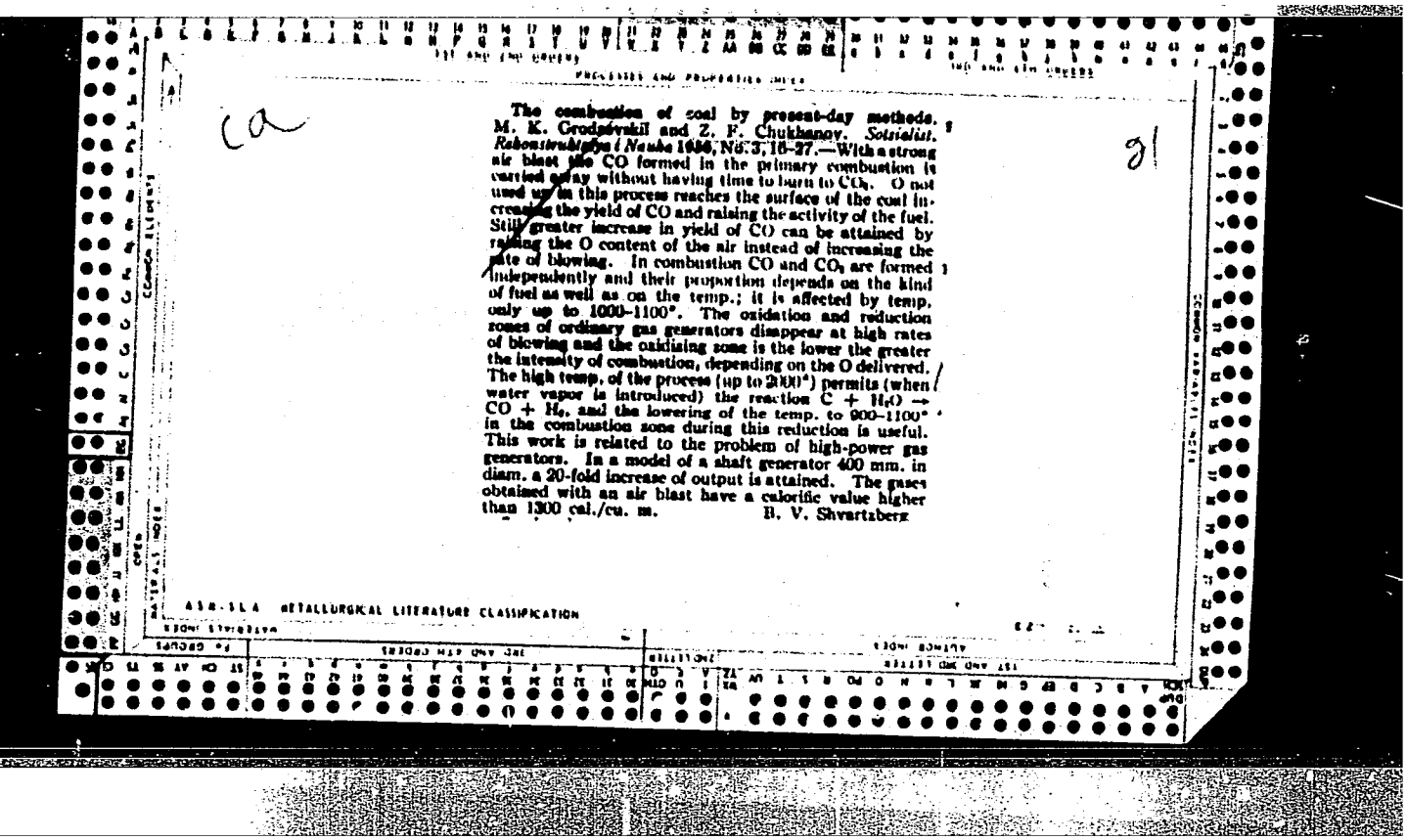


PROCESSES AND PROPERTIES INDEX

Gasification process for solid fuels. M. K. Grodzovskii and Z. F. Chukhanov.—*Compt. rend. acad. sci. U. R. S. S.* 3, 356-9 (in German 359) (1934).—The gasification processes of activated C and coke have been studied with normal and O-enriched air. Primary reactions are the formation of CO_2 and CO from the solid fuel. Formation of primary CO depends on the temp., the velocity and amt. of O_2 passing over the solid and upon the activity of the fuel. For complete gasification the primary CO must be rapidly enough removed to prevent further oxidation. This limiting velocity for charcoal is 1.2 m. per sec. With coke large velocities repress the reaction of C with CO_2 to form CO. With activated C this reaction proceeds appreciably only under 0.26 m. per sec. The results are of interest for improving the efficiency of the generator proc-ess.

H. A. Smith

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION



The combustion of coal by present-day methods. M. K. Grodzovskii and Z. F. Chukhanov. *Sotsialist. Rekonstruktsiya i Nauka* 1936, No. 3, 16–27.—With a strong air blast the CO formed in the primary combustion is carried away without having time to burn to CO_2. O not used up in this process reaches the surface of the coal increasing the yield of CO and raising the activity of the fuel. Still greater increase in yield of CO can be attained by raising the O content of the air instead of increasing the rate of blowing. In combustion CO and CO_2 are formed independently and their proportion depends on the kind of fuel as well as on the temp.; it is affected by temp. only up to 1000–1100°. The oxidation and reduction zones of ordinary gas generators disappear at high rates of blowing and the oxidising zone is the lower the greater the intensity of combustion, depending on the O delivered. The high temp. of the process (up to 2000°) permits (when water vapor is introduced) the reaction $C + H_2O \rightarrow CO + H_2$, and the lowering of the temp. to 900–1100° in the combustion zone during this reduction is useful. This work is related to the problem of high-power gas generators. In a model of a shaft generator 400 mm. in diam. a 20-fold increase of output is attained. The gases obtained with an air blast have a calorific value higher than 1300 cal./cu. m.

B. V. Shvartzberg

1ST AND 2ND ORDERS — PROCESSES AND PROPERTIES INDEX — 3RD AND 4TH ORDERS

CA 21

High-velocity gasification in the oxygen zone. I. Gasification as the process of carbon combustion (oxidation). M. K. Grodzovskii and Z. F. Chukhanov. *Khim. Tverdogo Topliva* 7, 902-19(1936); cf. C. A. 29, 329[?], 8125[?]. The products of primary reactions between O and C are CO and CO_2, the ratio of which varies, depending upon the type of C (kind of fuel). Thus, the greatest amt. of CO (32%) was obtained in the combustion of activated wood charcoal. Nearly the same amt. was obtained in the combustion of wood charcoal, while gas coke and electrode carbon produced about 24-5% of CO_2. At the same time, the amt. of CO_2 left unchanged was 1-2% for the first and 6-8% for the last two. With increase of the velocity and amt. of O passing over the solid, the amt. of CO increases and that of CO_2 decreases. Up to the flash point the velocity of formation of CO is lower than that of CO_2 but the rates of change of that velocity with temp. are equal. At the flash point the velocity of CO formation rises extremely rapidly but that of CO_2 remains the same as before; this may be explained as follows: At this point the CO formation is detd. by the increase of the no. of peripheral C atoms as the result of the increase of velocity, concn. of O, and other reactions on the surface of the C. The actual combustion of C is possible only at high velocity of O passing over the solid which forms only one zone, namely that in which this O is used up, and is conditioned by the rapid removal of CO to prevent further oxidation. The formation of primary CO is greater and the probability of its oxidation is smaller in the combustion of particles about 5 mm. and less in diam. Twelve references. **II. Oxygen zone of gasification.** *Ibid.* 920-98.—An approx. detn. of the O zone shows that with increase of the linear velocity (to a smaller degree) and of the percentage of O in the passing air (to a greater degree) the apparent zone of combustion decreases, although not linearly. The velocities of the reactions: $C + CO_2$ and $C + H_2O$ are conditioned by the decompn. of a physico-chem. complex C_xO_y which is formed as an intermediary product. The process of the decompn. of water vapor in the O zone is essentially different from the usual reaction: $C + H_2O \rightarrow CO + H_2$. The admixt. of an inert gas causes incomplete consumption of O and, therefore, the heat is insufficient to accomplish the high-velocity process.

A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Burning of carbon. I. Sequence of processes in the combustion of air suspensions of solid fuels. Chukhanov. *Tech. Phys. U. S. S. R.* 5, No. 1, 41-58 (1938) (in English).—See *C. A.* 32, 5500. M. W. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Combustion of carbon. I. Sequence of the processes in the combustion of aerosols of solid fuels. Z. F. Chukhanov. *J. Tech. Phys.* (U. S. S. R.) 8, 147-61 (1938).—The oxidation of an aerosol of activated wood charcoal (I) begins at approx. 300-500°. The products formed are CO and CO_2. The oxidation proceeds normally up to 700-750°, at which point there occurs a sharp change in the kinetics of the process, the C bursts into flame and the formation of CO and CO_2 is greatly accelerated. Variation in the kinetics of the sep. stages of the process depends on the activity (structure) of the C. The mode of combustion of all fuels corresponds closely to that of I.
John Livak

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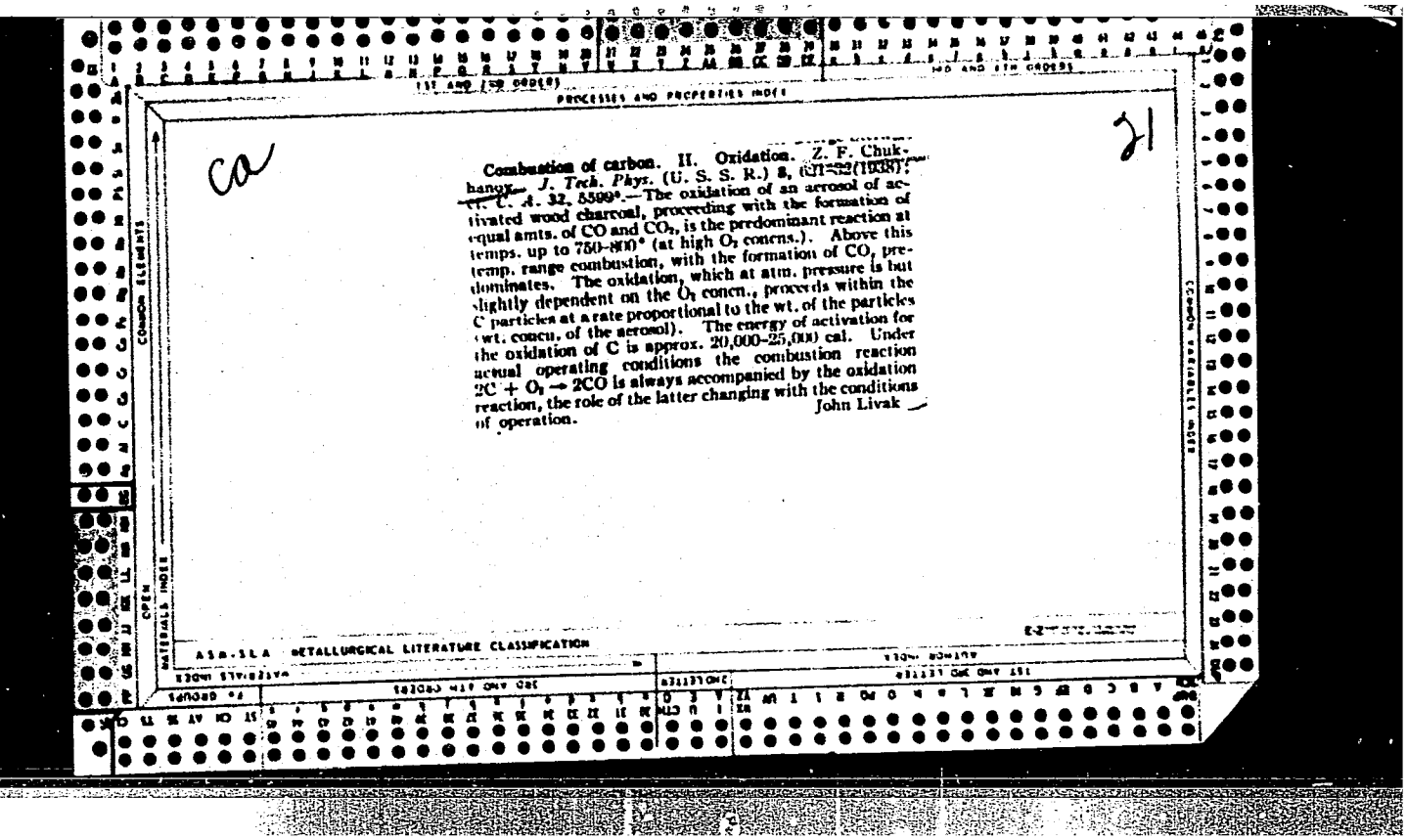

PROCESSES AND PROPERTIES INDEX

ca

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Combustion of carbon. II. **Oxidation.** Z. F. Chukhanov. *J. Tech. Phys.* (U. S. S. R.) 8, 621–32 (1938); cf. *C. A.* 32, 5599⁹.—The oxidation of an aerosol of activated wood charcoal, proceeding with the formation of equal amts. of CO and CO_2, is the predominant reaction at temps. up to 750–800° (at high O_2 concns.). Above this temp. range combustion, with the formation of CO, predominates. The oxidation, which at atm. pressure is but slightly dependent on the O_2 concn., proceeds within the C particles at a rate proportional to the wt. of the particles (wt. concn. of the aerosol). The energy of activation for the oxidation of C is approx. 20,000–25,000 cal. Under actual operating conditions the combustion reaction $2C + O_2 \rightarrow 2CO$ is always accompanied by the oxidation reaction, the role of the latter changing with the conditions of operation.

John Livak

COMMON ELEMENTS

MATERIALS INDEX

OPEN

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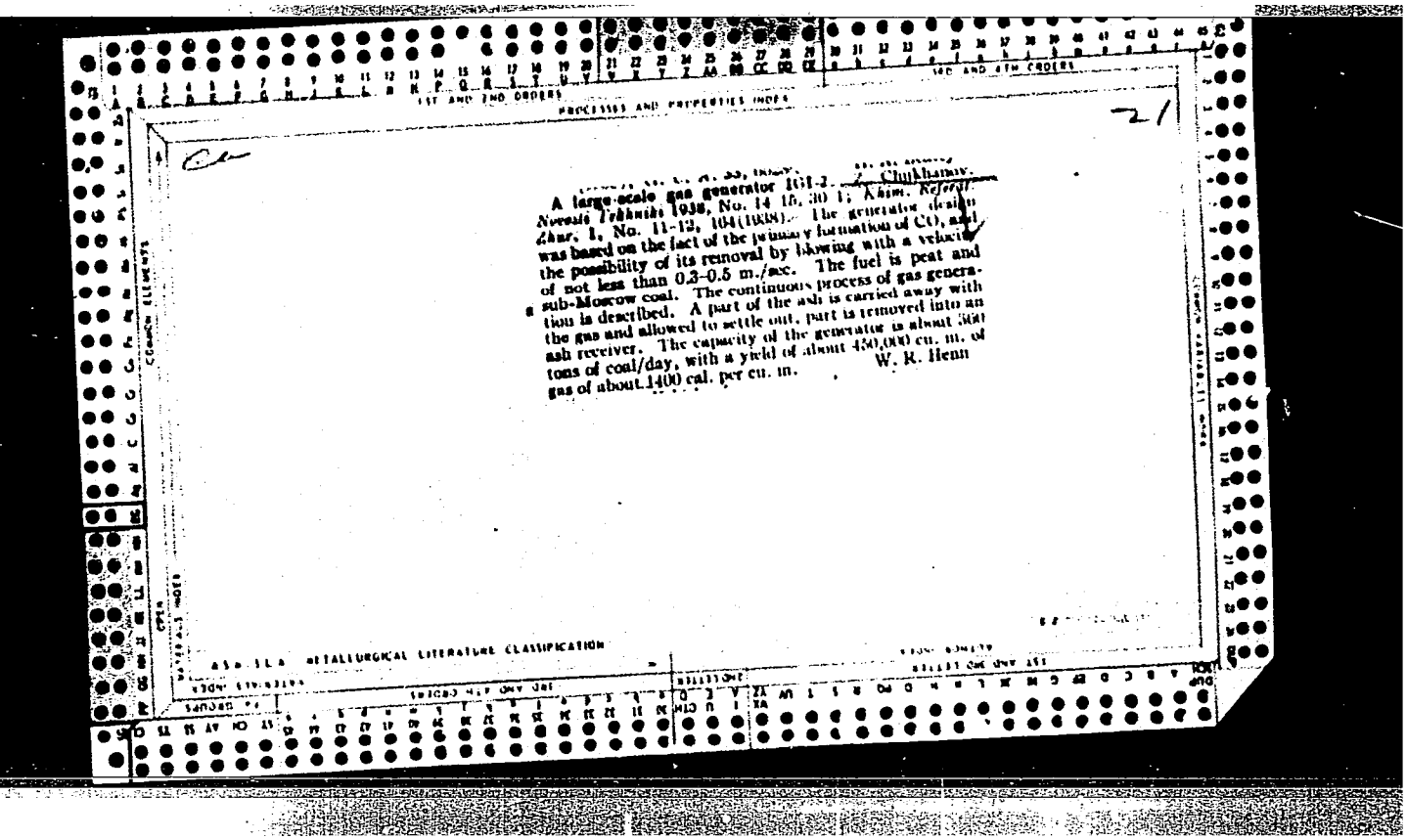
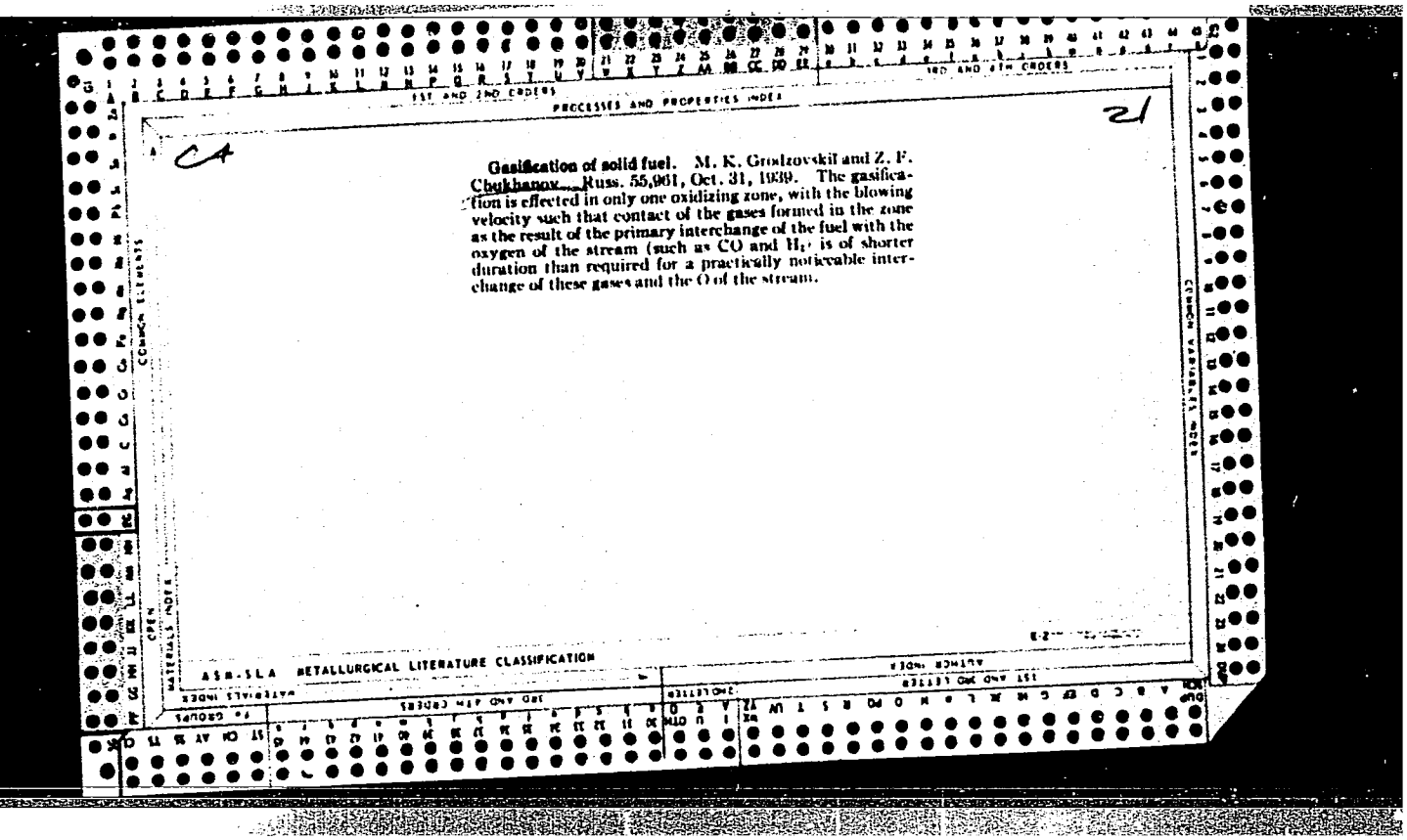


A large-scale gas generator [illegible]. [illegible] Chukhanov. *Novosti Tekhniki* 1938, No. 14 15, 30 1; *Khim. Referat. Zhur.*, 1, No. 11-12, 104(1938). The generator design was based on the fact of the primary formation of CO, and the possibility of its removal by blowing with a velocity of not less than 0.3–0.5 m./sec. The fuel is peat and sub-Moscow coal. The continuous process of gas generation is described. A part of the ash is carried away with the gas and allowed to settle out, part is removed into an ash receiver. The capacity of the generator is about 500 tons of coal/day, with a yield of about 450,000 cu. m. of gas of about 1400 cal. per cu. m.

W. R. Henn



PROCESSES AND PROPERTIES INDEX

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Gasification of solid fuel. M. K. Grolzovskil and Z. F. Chukhanov. Russ. 55,961, Oct. 31, 1939. The gasification is effected in only one oxidizing zone, with the blowing velocity such that contact of the gases formed in the zone as the result of the primary interchange of the fuel with the oxygen of the stream (such as CO and H_2) is of shorter duration than required for a practically noticeable interchange of these gases and the O of the stream.

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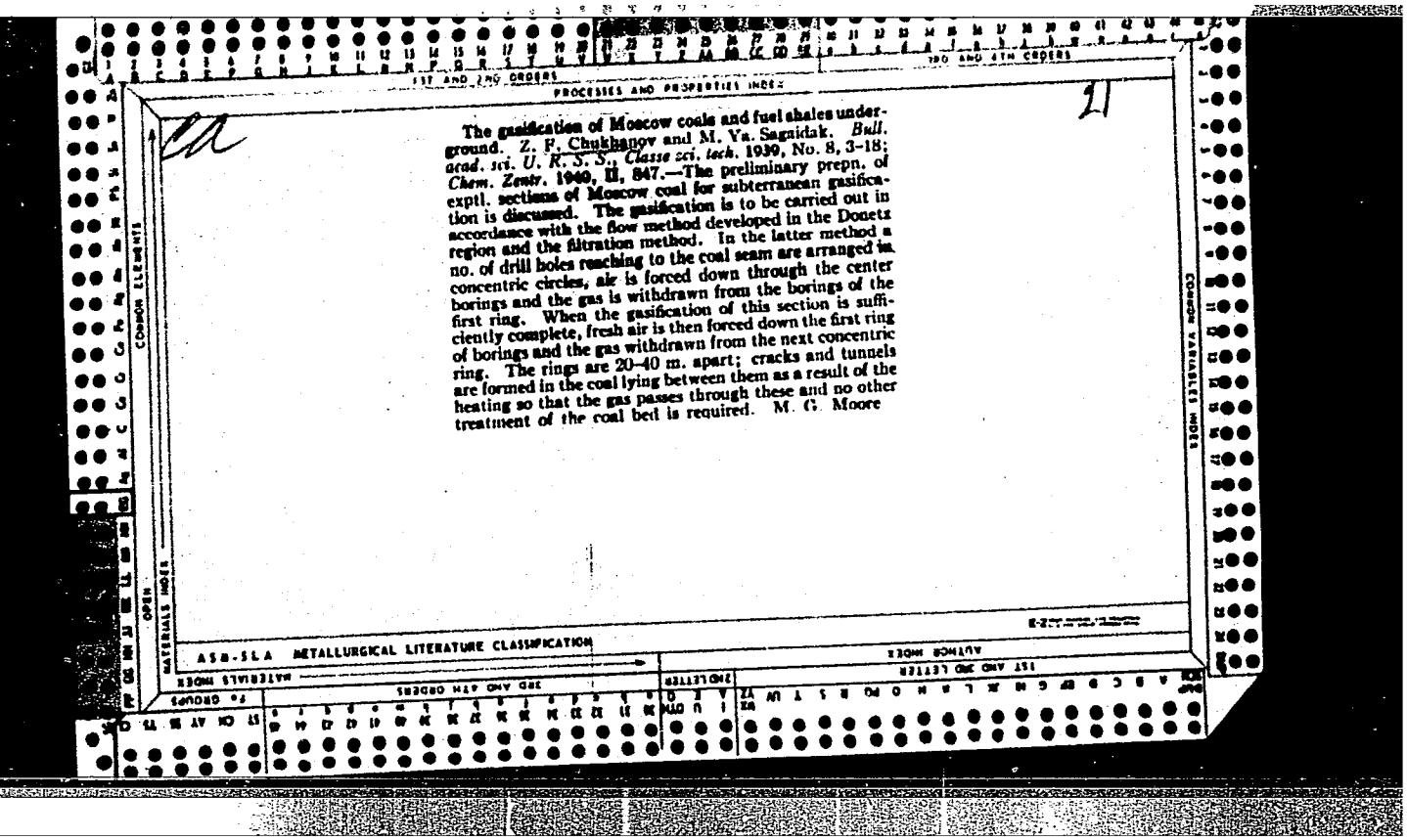

The gasification of Moscow coals and fuel shales underground. Z. F. Chukhanov and M. Ya. Sagaidak. *Bull. acad. sci. U. R. S. S., Classe sci. tech.* 1939, No. 8, 3–18; *Chem. Zentr.* 1940, II, 847.—The preliminary prepn. of exptl. sections of Moscow coal for subterranean gasification is discussed. The gasification is to be carried out in accordance with the flow method developed in the Donetz region and the filtration method. In the latter method a no. of drill holes reaching to the coal seam are arranged in concentric circles, air is forced down through the center borings and the gas is withdrawn from the borings of the first ring. When the gasification of this section is sufficiently complete, fresh air is then forced down the first ring of borings and the gas withdrawn from the next concentric ring. The rings are 20–40 m. apart; cracks and tunnels are formed in the coal lying between them as a result of the heating so that the gas passes through these and no other treatment of the coal bed is required. M. G. Moore