"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

L 16459-66
ACC NR: AP6009074 SOURCE CODE: UR/0105/65/000/004/0014/0019

AUTHOR: Dmokhovskaya, L. F. (Candidate of technical sciences); Dzhunkovskiy, O. N. (Engineer); Lyskov, Yu. I. (Engineer); Nebrat, L. E. (Engineer); Spuv, G. S. (Engineer); Shur, Yu. B. (Engineer); Yakub, Yu. A. (Engineer)

ORG: none

TITLE: Development and introduction of spark connection and forcing of reactors in long distance electrical transmission

SOURCE: Elektrichestvo, no. 4, 1965, 14-19

TOPIC TAGS: electric power transmission, electric distribution equipment, high voltage line

ABSTRACT: The introduction of high voltage, high power electric power transmission was greatly aided by the switch from limiting power to suit the capacity of insulation and transmission structures under all possible conditions to the limitation of loads to suit the capacities under normal conditions and the installation of reactors and circuit breakers to prevent sudden overloads. One remaining problem was the slow action of mechanical switching devices. This has been defeated by the installation of spark gaps. The reactors are constantly connected to the line through spark gaps, across which a spark arcs almost instantaneously in case of overload. A 500 kv transmission line was

UDC: 621.311.1

Card 1/2

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

L 16459-66
ACC NR: AP6009074

set up between the Bratsk power station and Irkutsk and tests and analysis of the operation of the equipment described were run. It was discovered that overloads occurred mostly in the second or third half-cycle of operation. It was also discovered that it is profitable to install spark-operated reactors at substations, even at terminal stations in many cases. Diagrams and photographs of the equipment, as well as a table showing the results of investigations on a model of internal overloads and the influence on them of various means of connection of the 500 kv reactors, are presented. Analysis showed that the devices worked reliably and safely, and that the internal resistance of the spark in the gap could be ignored. Orig. art. has: 4 figures and 1 table. [JPRS]

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 007 / OTH REF: 001

Card 2/2 mc

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACC NR: AP7001087 (A,N) SOURCE CODE: UR/0439/66/045/005/0679/0686

AUTHOR: Yakuba, V. N.

ORG: Irkutsk Scientific Research Anti-plague Institute of Siberia and the Far East (Irkutskiy nauchno-issledovatel'skiy protivochumnyy institut Sibiri i Dal'nego Vostoka)

TITLE: Seasonal variations in the population and diurnal activity rhythm of mosquitoes in a tularemia focus of Central Yakutia

SOURCE: Zoologicheskiy zhurnal, v. 45, no. 5, 1966, 679-686

TOPIC TAGS: epidemiology, animal parasite, mosquito, tularemia

ABSTRACT: Systematic mosquito collections in a Central Yakutia tularemia focus in 1961—1962 showed that *Aedes cinereus* makes up 60% of the mosquito population, *Aedes cataphylla* — 20%, and *Aedes flavescens* — 7%. *Aedes cataphylla* is most prevalent in June (77% predominance) and *Aedes cinereus* in July (90%) and August (97%). In this area mosquitoes attack from late May to September, and are most numerous in late June and early July. Changes in diurnal activity of mosquitoes make contraction of tularemia by mosquito bite most likely in the evening and at night during June and July, and in the daylight

Card 1/2 UDC: 595.771:591.5+616.981.455(571.56)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACC NR: AP7001087

hours in August. The mosquito population is always higher on islands than on banks. Orig. art. has: 7 tables and 5 figures. [JS]

[WA-50; CBE No. 14]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 006

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACC NR: AP7000142 SOURCE CODE: UR/0046/66/012/004/0405/0410

AUTHORS: Blagoy, Yu. P.; Butko, A. Yo.; Mikhaylenko, S. A.; Yakuba, V. V.

ORG: Physicotechnical Institute for Low Temperatures, AN UkrSSR, Khar'kov (Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR)

TITLE: Velocity of sound in liquid nitrogen, oxygen, and argon at temperatures higher than the normal boiling temperatures

SOURCE: Akusticheskiy zhurnal, v. 12, no. 4, 1966, 405-410

TOPIC TAGS: sound propagation, oxygen, nitrogen, argon, specific heat

ABSTRACT: The velocity of sound in liquid nitrogen, oxygen, and argon in the temperature region of 77—87K and 112—120K was determined. The investigation supplements the results of I. S. Radovskiy (Eksperimental'noye issledovaniye skorosti ul'trazvuka na linii nasyshcheniya v argone. Zh. prikl. mekh. i tekhn. fiz., 1963, 3, 159. Issledovaniya skorosti zvuka v zhidkom i gazoobraznom argone. Zh. prikl. mekh. i tekh. fiz., 1964, 3, 172). The experimental technique is described by A. Yo. Butko, S. A. Mikhaylenko, and V. V. Yakuba (Ul'trazvukovoy interferometr dlya nizkotemperaturnykh zhidkostey. Sb. Voprosy metodiki ul'trazvukovoy interferometrii. Tr. Vses. konferentsii po metodike ul'trazvukovoy interferometrii. Kaunas, Izd-vo Mintis, 1966). A schematic of the experimental installation is presented. From the

Card 1/2 UDC: 534.22:542.79

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACC NR: AP7000142

experimental results, values for the adiabatic and isothermal compressibility and specific heats at constant pressure and constant volume, respectively, were derived. The experimental results are tabulated. It was found that these results were in good agreement with data reported in the literature. Orig. art. has: 4 tables, 1 graph, and 6 equations.

SUB CODE: 20/ SUBM DATE: 26Apr65/ ORIG REF: 006/ OTH REF: 012

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBANETS, S.

YAKUBANETS, S.; RUBTSOV, G.; BAL'NOV, M.; SHISHKIN, R.

Prestressed reinforced concrete large-span frames in Stalingrad and Stalinsk. Stroitel' no.3:2-5 Mr '58. (MIRA 11:2)

1. Glavnyy inzhener tresta Stalingradmetallurgstroy (for Yakubanets). 2. Glavnyy tekhnolog tresta Stalingradmetallurgstroy (for Rubtsov). 3. Glavnyy inzhener tresta Kuznetsktyazhstroy (for Bal'nov). 4. Glavnyy inzhener proyekta (for Shishkin)
(Stalingrad--Precast concrete) (Stalinsk--Precast concrete)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBANETS, S.; RUBTSOV, G.

Progressive methods of building an aluminum plant. Na stroi.Ros. no.3:11-14 Mr '61. (MIRA 14:6)

1. Upravlyayushchiy trestom Stalingradmetallurgstroy (for Yakubanets). 2. Glavnyy tekhnolog tresta Stalingradmetallurgstroy (for Rubtsov).

(Stalingrad--Metallurgical plants)
(Precast concrete construction)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

DONIKA, I.S.; GANYA, I.M.; YAKUBANIS, V.N.

Frightening injurious birds from the orchards and vineyards of Moldavia. Ornitologiia no.6:337-340 '63. (MIRA 17:6)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAUSKAS, V. I.

Cand Tech Sci - (diss) "Study of technico-exploitation properties of tractor MTZ-5K "Belorus' " operating on soils of intersecting terrain and increased moisture of the Lithuanian SSR." Kaunas, 1961. 31 pp; with diagrams; (Ministry of Agriculture Lithuanian SSR, Lithuanian Agricultural Academy); 180 copies; price: free; (KL, 10-61 sup, 220)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAUSKAS, V.I. [Jakubauskas, V.], kand. tekhn. nauk

Effect of relief on the operational indices of the "Belarus'" tractor. Mekh. i elek. sots. sel'khoz. 21 no.1:18-19 '63. (MIRA 16:7)

1. Litovskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.
(Tractors)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACCESSION NR: AP4009192 S/0288/63/000/003/0139/0142

AUTHOR: Tropin, Yu. D.; Yakubaylik, E. K.

TITLE: Investigation of the magnetic properties of filiform monocrystals of iron

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izv. Seriya tekhnicheskikh nauk, no. 3, 1963, 139-142

TOPIC TAGS: iron crystals, iron whiskers, iron hysteresis, iron susceptibility, filiform iron, iron dislocation studies, iron saturation magnetization, ferromagnetism, Fe

ABSTRACT: The possibility of studying the magnetic properties of almost ideally perfect iron crystals and relating the results to the perfection of a crystal lattice, using the basic ideas of the theory of dislocations, stimulated the present article. The authors refer to investigations by E. M. Nadgorny*y, Yu. A. Osip'yan, M. D. Perkas and V. M. Rosenberg (Nitevidny*ye kristally* s prochnost'yu, blizkoy k teoreticheskoy, UFN, 67, 4, 625-662, 1959) and E. M. Nadgorny*y (Svoystva nitevidny*kh kristallov, UFN, 77, 2, 201-227, 1962) and others, where much attention has been devoted to so-called "whiskers"-- filiform

Card 1/4 3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACCESSION NR: AP4009192

crystals of metals and their oxides, which observe a highly-perfected crystal lattice. The authors have investigated 150 whiskers of iron which were grown with three main orientations: [100], [110], [111]. Magnetization curves were made with a ballistic device while transferring the container holding a sample from one search coil to another. The coils were balanced and connected in opposite phase. Typical magnetization curves of the three types of whiskers with a diameter of 200-300 microns are shown in Figure 1. The characteristic of the curves, magnitude of saturation magnetization and values of saturation fields for each type of curve are found to be the same as those of ordinary monocrystals of iron. Hysteresis and dynamic susceptibility loops presented on an oscilloscope screen were photographed at an alternating magnetization frequency of 200 cycles per second. An amplification channel of the signal $E \sim dI/dt$ allowed its passage without distortions, and integration of pulses with durations from 5 to 40 microseconds. Wide band amplifier USH-10 was used to study whiskers with rectangular hysteresis loops. The authors conclude that further research is needed in the connection that fine iron whiskers, crystallized in the orientation [100], observe rectangular hysteresis loops and a high alternating magnetization speed important for the theory of ferromagnetism. Orig. art. has: 3 figures.

Card 2/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACCESSION NR: AP4009192

ASSOCIATION: Krasnoyarskiy institut fiziki Sibirskogo otdeleniya AN SSSR (Krasnoyarsk Physics Institute, Siberian Division, AN SSSR)

SUBMITTED: 27Aug62 DATE ACQ: 10Feb64 ENCL: 01

SUB CODE: PH NO REF SOV: 002 OTHER: 006

Card 3/4 3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

KLEYER, M.D., inzh.; YAKUBAYTIS, A.A., inzh.

Embankment made of hollow concrete blocks. Transp. stroi. 11 no.8:23-24 Ag '61. (MIRA 14:9)
(Klaipeda--Embankments)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, Eduard Aleksandrovich [Jakubaitis, Eduards]; LEVI, S., red.; BOKMAN, R., tekhn.red.

[Automatic control of synchronous generators with varying angular velocity] Avtomaticheskoe regulirovanie sinkhronnykh generatorov pri peremennoi skorosti vrashcheniia. Riga, Izd-vo Akad.nauk Latviiskoi SSR, 1947. 155 p.

(MIRA 14:12)

(Electric generators)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E. A.

Yakubaytis, E. A. - "The crude synchronization of electric generators and networks", Sbornik nauch. statey studentov Rostov na Donu, 1949, p. 5-11.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A.

2

621.313.322

USSR.

3066. Method of calculating the steady-state characteristic of a generator working across a long electric power transmission with automatic control of the excitation. E. A. YAKUBAYTIS. *Latv. PRS Zināt. Akad. Vēstis*, 1954, *No.* 4, 75-100 In Russian.

The method permits the calculation of the steady-state power characteristic of a synchronous generator with salient poles working across a long transmission line, represented by a quadripole, on a large power system, taking into account the action of the automatic regulation of the excitation, armature resistance and saturation in the direct field axis. A numerical example, using data of the Kuibyshev-Moscow scheme, clarifies the use of the equations.

F. BUSEMANN

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A.

744. STEADY STATE CHARACTERISTIC OF THE MEAS-
URING CIRCUIT OF RECTIFYING [illegible] REACTORS

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A.

621.311.6 : 625.23

4574. Direct current supply systems for railway carriages. É. A. YAKUBAYTIS. *Latv. PSR Zināt. Akad. Vēstis*, 1955, *No.* 3, 107–16. In Russian.

Synchronous generators feeding through rectifiers are recommended, as they do not suffer from disadvantages peculiar to systems fed from d.c. generators: insufficient time for recharging the battery, need for a ballast resistance, vibrating type regulators. The preferred scheme requires a double-winding 3-ph. generator, two sets of rectifiers, a voltage and a current regulator.

A. KARLSBAD

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A., kandidat tekhnicheskikh nauk (Riga)

Electric power plant underneath a railroad car. Nauka i zhizn' 23 no.10:50 O '56. (MLRA 9:11)
(Latvia--Railroads--Electric equipment)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A., kandidat tekhnicheskikh nauk.

System of a.c. electric power supply for passenger cars. Zhel. dor.transp. 37 no.7:35-36 Jl '56. (MLRA 9:8)
(Railroads--Electricequipment)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A.

PA - 2783

AUTHOR: JAKUBAJTIS, E.A.

TITLE: Contactless Circuit for the Forced Excitation of the Synchronous Alternator. (Beskontaktnoe ustrojstwo dlja forsirowki wobugjdenja sinchronnich generatorow, Russian)

PERIODICAL: Latvijas PSR Zinatmu Akad. Westis, 1957, Vol 1, Nr 3 (116), pp 147 - 152 (U.S.S.R.)

Received: 5 / 1957 Reviewed: 6 / 1957

ABSTRACT: The voltage of the synchronous alternator is kept equal in the case of normal operation by the normal voltage regulation. The current flows from the voltage transformer via the rectifier to R_2, where it causes a voltage drop of inverse polarity to B_1. At 2 no current flow takes place. At B_2 the voltage drops and increases at B_1 when the generator voltage decreases considerably with a simultaneous increase of the current (short circuit in the stator winding etc). The current i passes through 2. Contactless circuit accelerates the increasing of the current.

Conclusions:
As movable parts and contacts are lacking, the circuit is explosion-proof. The circuit shows inertia and requires no continuous current flow. It is probably used for the purpose of avoiding accidents.

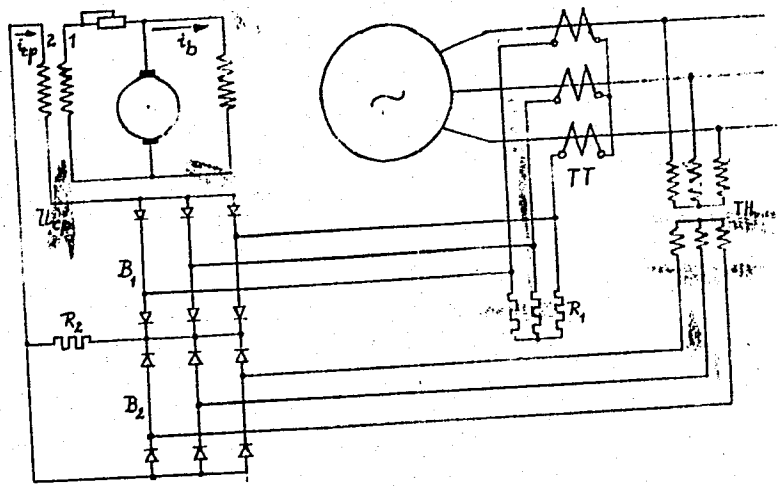
Card 1/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

PA - 2783

Contactless Circuit for the Forced Excitation of the Synchronous Alternator.



First Contour:

TT - current transformer
R_1 - rheostat
B_1 - rectifier
R_2^1 - switching resistance
2^2 - exciter winding

Second Contour:

TH - voltage transformer
B_2 - rectifier
R_2^2 - switching resistance

Card 2/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

PA - 2783

Contactless Circuit for the Forced Excitation of the Synchronous Alternator.

ASSOCIATION: Energy Economics and Electrotechnics of the Academy of Science of the Latvian S.S.R.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress.

Card 3/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A

SHTURMAN, G.I., doktor tekhnicheskikh nauk, professor; YAKUBAYTIS, E.A., kandidat tekhnicheskikh nauk.; KROGERIS, A.F., kandidat tekhnicheskikh nauk.; APSIT, V.V., kandidat tekhnicheskikh nauk.

A new system of autonomous power supply for railway passenger cars. Elektrichestvo no.3:39-43 Mr '57. (MLRA 10:4)

1. Institut energetiki i elektrotekhniki Akademii nauk Latviyskoy SSR.
(Railroads--Electric equipment)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

Yakubaytis, E.A.

CALCULATIONS: FORMULAS

"Procedure for the Calculation of the Optimum Parameters of D-C Bridge Measuring Circuits", by Candidate of Technical Sciences E.A. Yakubaytis, Izvestiya, (Bulletin) of the Academy of Sciences Latvian SSR, No 6, (119) 1957, pp 95-109.

A procedure is given for choosing the optimum parameters of a measurement d-c bridge circuit operating with an input from an amplifier having a control winding (magnetic, dynamoelectric, carbon pile, etc.). The nonlinear bridge elements used in this article are barreters, but the procedure described can be readily extended to include other bridge circuits in which there are other nonlinear elements, whose characteristics lend themselves to piecewise-linear approximation.

Card 1/1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A

AUTHOR: 1) Cand.Techn.Sc.V.V.KAPLAN, Cand.Techn.Sc. 105-8-17/20
NASHATYR', V.M.
2) Dr.Techn.Sc.Prof.G.I.SHTURMAN, Cand.Techn.Sc.E.A.YAKUBAYTIS,
Cand.Techn.Sc.A.F.KROGERIS, Cand.Techn.Sc.V.V.APSIT,
Cand.Techn.Sc.A.G.ZDROK, Cand.Techn.Sc.Ass.Prof.G.P.SMIRNOV

TITLE: 1) On the Testing of Current-Limiting High-Frequency Fuses in an Oscillatory Circuit. (Ispytaniye vysokovol'tnykh tokoogranichivayushchikh predokhraniteley na kolebatel'nom konture)
2) On the Work of the Saturation Impedance with a Semiconductor Rectifier and Active Induction Load. (Rabota drosselya nasyshcheniya s poluprovodnikovym vypryamitelem i aktivno-induktivnoy nagruzkoy)

PERIODICAL: Elektrichestvo, Nr 8, pp 74 - 77 (U.S.S.R.) , 1957

ABSTRACT: 1) Refers to the article by both authors in Elektrichestvo, 1956, Nr 5. Reference is made to the letter by Dr.A.Myslitskiy (Poland). The latter writes that only symmetrical short-circuit current curves are given in the article, whereas in a number of cases especially difficult conditions develop for the switching off of an arc in a high-frequency fuse, due to the presence of an aperiodic component in the short-circuit current. The authors announce that in later works a system was used by means of which investigations can be made on

Card 1/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

105-8-17/20

1) On the Testing of Current-Limiting High-Frequency Fuses in an Oscillatory Circuit.
2) On the Work of the Saturation Impedance with a Semiconductor Rectifier and Active Induction Load.

1) The circuit-breaking capacities of the current-limiting fuses in an oscillatory circuit not only in the case of symmetrical short-circuit current curves, but also in the presence of an aperiodic component in the current curve. (2 illustrations)
2) Refers to the article by A.G.Zdrok and G.P.Smirnov in Elektrichestvo, 1956, Nr 10. Zdrok and Smirnov are reproached by the first four above-mentioned authors the following: it is only in the third part of the paper that a concrete statement of problems may be comprehended; it is completely unintelligible which problem is exactly treated in the first part of the paper; why they cite data by Komar and Kaganov as their own; the paper is only a great disorder without giving any solution. The authors state that they only wanted to give recent data and point out experiments without describing them. (With 2 Slavic references)

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

PA - 2562

AUTHOR YAKUBAYTIS,E.A. (Riga)

TITLE Analytical Expression for Static Characteristic of a Metering Device of a Choke Regulator. (Analiticheskogo vyrazheniye staticheskoy kharakteristiki izmeritel'nogo ustroystva drossel' nogo regulyatora, Russian)

PERIODICAL: Avtomatika i Telemekhanika, 1957, Vol 18, Nr 3, pp 267 - 272 (U.S.S.R.)

Received: 4 / 1957 Reviewed: 6 / 1957

ABSTRACT: A metering device based on the comparison of two different voltages has the most general scheme. Such metering device is described in the present paper. Other types can be obtained by simplifying this scheme. The suggested method is valid under the following assumptions: 1) The magnetic characteristic of the choke is shown in a certain approximation in form of two straight lines. 2) The real volt-ampere characteristic of the valve is replaced by an idealized one, consisting of two straight lines. 3) The control winding is given as an active resistance R_y. 4) The influence of the separating transformer is not taken into account. The equation for the working scope of the static characteristic of the metering device is deduced and, following this, also the static characteristic for the non-working domain. The linear partial approximation of the choke magnetizing curve and the volt-ampere characteristic

Card 1/2

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

PA - 2562

Analytical Expression for Static Characteristic of a Metering Device of a Choke Regulator.

of the semiconductor rectifier offers the possibility of calculating the metering device approximatively by two non-linear elements. This method can also be applied for other typed of metering devices of choke controls as well as for a few other schemes with saturation chokes and semiconductor valves. The deviations between investigation- and calculation- results are shown in two diagrams. (7 illustrations and 2 citations from Slav literature)

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED: 7.4.1956
AVAILABLE: Library of Congress.

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A., kandidat tekhnicheskikh nauk.

On the possible uses of semiconductors in railroad transport.
Zhel.dor.transp. 39 no.7:50-52 Jl '57. (MLRA 10:8)
(Semiconductors)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A., [Jakubaitis, E.A.], kand. tekhn. nauk; KROGERIS, A.F.; APSIT, V.V. [Apsits, V.]; VENGRANOVICH, A., red.; INKIS, R., tekhn. red.

[Development and present state of electric power supply techniques for railroad passenger cars; brief review] Razvitie i sostoianie tekhniki elektrosnabzheniia passazhirskikh zheleznodorozhnykh vagonov; kratkii obzor. Riga, Izd-vo Akad. nauk Latviiskoi SSR, 1958. 75 p. (MIRA 14:12)
(Railroads—Electric equipment)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

JAKUBAITIS, E.

GENERAL
PERIODICALS: VESTIS No. 1, 1958

JUKUBAITIS, E. Germanium rectifiers in the electric-supply system for railroad passenger cars. In Russian. p. 121

Monthly list of East European Accessions (EEAI) LC, VOL. 8, No. 2, February 1959, Unclass.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

SOV/112-59-1-545

8(6)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 1, p 71 (USSR)

AUTHOR: Yakubaytis, E. A., and Vayvars, M. P.

TITLE: Single-Phase Bridge-Rectifier Scheme in the Field Current of a Synchronous Generator

PERIODICAL: Tr. In-ta energ. i elektrotekhn. AS Latviyskaya SSR, 1958, Vol 6, pp 39-57

ABSTRACT: An analysis of the functioning of a single-phase bridge rectifier that uses semiconductor valves and is intended for field supply of a synchronous generator is presented. To evaluate possible simplifications in the analysis of generator transients, the influence of the field alternating-current frequency (individual sinusoidal components of the pulsating rectified current) upon the field-winding inductance and resistance is examined. Due to the skin effect, the field-winding resistance and impedance of a 6-SG-60 type salient-pole generator rapidly rise with the current frequency. For this reason, with a

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Single-Phase Bridge-Rectifier Scheme in the Field Current of a Synchronous . . . .

sinusoidal voltage across the rectifier input, the synchronous-generator field winding can be replaced with a resistance equal to the DC resistance of this winding and a filter passing only the DC component of the rectifier output voltage. The validity of this assumption is confirmed by experiments conducted with various types of generators. With this assumption accepted, valve currents under various conditions have been determined, the limit conditions imposed by the valve parameters have been found, and the relationship between the field-winding direct current and the rectifier-input sinusoidal-voltage amplitude has been determined. Knowing the influence of frequency upon the field-winding resistance and time constant, the inference is drawn that in calculating currents and voltages in the bridge arms, fed by sinusoidal current, the field-winding time constant (under short-circuit conditions of the rectifier) can be taken equal to infinity.

A.A.V.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A., kand.tekhn.nauk; LIBMAN, A.Z., inzh.

Railroad car electric power plants equipped with a.c. generators and semiconductor rectifiers. Vest. TSNII MPS [17] no.7:55-57 N '58. (MIRA 11:12)

(Railroads--Electric equipment)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

JAKUBAITIS, E.

GENERAL

PERIODICALS: VESTIS, NO. 8, 1958

JAKUBAITIS, E. Optimum parameters of electromagnetic apparatus, fed by a semiconductive triode. In Russian. p. 111.

Monthly list of East European Accessions (EEAI) LC, VOL. 8, No. 2 February 1959, Unclass.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A., Doc Tech Sci — (diss) "Self-exciting synchronous generator with alternating frequency." [Riga], 1959. 24 pp (Acad of Sci USSR. Power Engineering Inst im G.M. Krzhizhanovskiy). 170 copies. List of author's works, pp 22-24 (KL,39-59, 103)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

PHASE I BOOK EXPLOITATION SOV/3777

Yakubaytis, Eduard Aleksandrovich

Samovozbuzhdayushchiysya sinkhronnyy generator pri peremennoy chastote (Self-Excited Synchronous Generator at Varying Frequency) Riga, 1959. 359 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Latviyskoy SSR. Institut energetiki i elektrotekhniki.

Ed.: S. Levi; Tech. Ed.: R. Bokman; Resp. Ed.: V. S. Kulebakin, Academician.

PURPOSE: This monograph is intended for engineering personnel engaged in designing multipurpose alternating-current generators.

COVERAGE: The author discusses the importance of studying power supply systems in which the frequency varies over a wide range and also the design of synchronous generators and automatic control gears capable of securing specified parameters of generated electric energy at varying frequency. The most important results of the authors in-

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vestigations in the field of automatic control of generator excitation are described in this monograph. The author thanks Academicians V. S. Kulebakin and K. K. Plaude. There are 177 references: 128 Soviet (6 of which are translations), 22 English, 24 German, and 3 French.

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1. Operating conditions and requirements of electrical equipment for transportation 19

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E. A. [Jakubaitis, E.] (Riga)

Voltage regulator based on semiconductors. Vestis Latv ak no.9:65-69 '59. (EEAI 9:10)

1. Akademiya nauk Latviyskoy SSR, Institut energetiki i elektrotekhniki.
(Voltage regulators) (Semiconductors)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

GLUKHOV, V. (Riga); YAKUBAITIS, E. A. [Jakubaitis, E.]

Calculation of branched circuit having choking coul with iron core. Vestis Latv ak no.10:59-64 '59. (EEAI 9:10)

1. Akademiya nauk Latviyskoy SSR, Institut energetiki i elektrotekhniki.
(Electric circuits) (Iron)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

RATNIYEKS, El'vira Avgustovna [Ratnieks, Elvira]; YAKUBAYTIS, E.A. [Jakubaitis, E.], kand.tekhn.nauk, otv.red.; TEYTEL'BAUM, A., red.; PAEGLIS, Ya. [Paeglis, J.], tekhn.red.

[Electric power plant for passenger cars] Elektricheskaia stantsiia dlia passazhirskogo vagona. Riga, Izd-vo Akad.nauk Latviiskoi SSR, 1960. 52 p. (MIRA 14:12)
(Railroads--Electric equipment)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

SHTURMAN, G.I., prof., doktor tekhn.nauk; APSIT, V.V., kand.tekhn.nauk; YAKUBAYTIS, E.A., kand.tekhn.nauk; KROGERIS, A.K., kand.tekhn.nauk

Systems of electric supply for railroad cars. Zhel.dor. transp. 42 no.1:56-57 Ja '60. (MIRA 13:5)
(Railroads--Electric equipment)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, Eduard Aleksandrovich (Institute of Energetics and Electrotechnics Acad Sci Latvian SSR) for Doc of Technical Sci on the basis of dissertation defended 29 Oct 59 in the Council of the Energetics Institute im. Krzhizhanovskiy, Acad Sci USSR, entitled: "Arc-Stimulating Synchronous Generator of Alternating Frequency." (BMViSSO USSR, 2-61,31)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

GLUKHOV, Vasiliy Pavlovich, kand. tekhn. nauk; YAKUBAYTIS, Eduard Aleksandrovich [Jakubaitis, E.], doktor tekhn. nauk; SAVEL'YEVA, Ye., red.; PILADZE, Ye. [Piladze, E.], tekhn. red.

[Physical simulation of choke-type magnetic amplifiers] Fizicheskoe modelirovanie drossel'nykh magnitnykh usilitelei. Riga, Izd-vo Akad. nauk Latviiskoi SSR, 1961. 191 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk Latviyskoy SSR (for Yakubaytis).

(Magnetic amplifiers) (Electric networks analyzers)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

S/194/62/000/009/015/100
D201/D308

9.7200

AUTHOR: Yakubaytis, E. A.

TITLE: Theoretical fundamentals of mathematical simulation of magnetic amplifiers and saturation chokes

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 9, 1962, abstract 9-2-28 v (Tr. In-ta elektron. i vychisl. tekhn. AN LatvSSR, 1961, 1, 5-27)

TEXT: The author considers the theoretical fundamentals of simulation of magnetic amplifiers and chokes which find wide application in the installations of automatic control. The analysis of dependences which characterize the processes occurring in magnetic amplifiers and saturation chokes shows that introducing relative units and dimensionless criteria makes possible the following: 1) to obtain analogs of amplifiers and chokes having magnetic circuits of various materials and various forms without changing the dependence $\mu^* = \varphi(H^*)$ set in the nonlinear units of the analog machine;

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Theoretical fundamentals of ...

2) to analyze the characteristics of the amplifiers and chokes operating at different frequencies without using any frequency in the analog machine; 3) to reduce sharply the number of variable coefficients in the units of the analog computer. 4 figures. 1 reference. /Abstracter's note: Complete translation./

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B101/B206

AUTHORS: Yakubaytis, E., Vaivars, M.

TITLE: Apparatus for determining the time constant of an electromagnetic attenuation process

PERIODICAL: Izvestiya Akademii nauk Latviyskoy SSR, no. 3, 1961, 41-50

TEXT: Till now, the time constant of a transition process had to be calculated from the oscillogram, which is rather complicated. This article describes an apparatus on the basis of computer engineering, which serves for direct measurement of the time constant. The following equations are written down for the process: $u = U_o \exp(-t/T)$ (1), where U_o is the initial value and T the time constant. Since $du/dt = -(U_o/T)\exp(-t/T)$ (2), $T = u/(-du/dt)$ (3). Fig. 1 shows the principal circuit of an apparatus performing the mathematical operation of Eq. (3). The voltage u to be investigated is fed to the pre-amplifier 1, and after amplification (ku), to the differentiator 2. The output voltage of the differentiator is proportional to du/dt. In the dividing

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unit 3, ku is divided by du/dt and gives the time constant T. Fig. 2 shows the circuit diagram of the apparatus. The amplifier 1 serves for the amplification of the input voltage. The differentiator 2 is an amplifier with capacitance at the input and active resistance in the feedback. For the stabilization of 2, a small active resistance is connected in series to the capacitance; this resistance is not shown in Fig. 2 and does not cause any noticeable error. The БП multiplier serves for dividing voltage u_1 by voltage u_2, which is proportional to the derivative of u_1, and the nonlinear unit БН with hyperbolic characteristic for forming the reciprocal value of u_2. The amplifiers 3 and 4 belong to the nonlinear unit and multiplier, the amplifiers 5, 6, 7 serve for changing the voltage sign. БИ is the measuring unit. The maximum voltage admissible for the units used amounts to 100 v. It is attained at the output of 1. $u_2 = (U_o k_2/T)\exp(-t/T)$ (6) is written down for the voltage at the output of 2. The condition $U_o = u_2 = 100$ v is fulfilled at $k_2 = T$ (7). $u_3 = k_2/u_2$ (8) is written

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Apparatus for determining...

down for the voltage u_3 at the output of the nonlinear unit, and $u_4 = 0.01u_1u_3$ (9) for u_4 at the output of the multiplier. $u_4 = 0.01k_3T/k_2$ (10) results therefrom. If $u_{4\,min} = 100\alpha$; $(0 < \alpha \leq 1)$, $k_3 = 10{,}000\alpha$ (11). Between u_2 and u_3, the correlation $u_2 = 10{,}000\alpha/u_3$ (12) exists, i.e. for $u_3 = 100$ v, $u_2 = 100\,\alpha$ (13). From this follows: $u_1 = 100T\alpha/k_2$ (14). When assuming that $U_o = 100\beta$; $(0 < \beta \leq 1)$, $\exp(-t/T) = T\alpha/k_2\beta$ (15) is obtained. By means of Eq. 15 the value of t/T, in which u_3 reaches the maximum value of 100 v, may be calculated, and the duration of the process, during which the time constant can be measured, may thus be determined. The measurable duration of the process depends on α/β. $\beta = 1$ was chosen. By means of the units of the analog electronic computer of the type MN-7 (MN-7), $\alpha = 0.3$ could be obtained as minimum value. Fig. 5 shows the determination of the time constant T of three exponential processes ($T = \text{const}$). The maximum deviation of the measured results amounts to 6%. It is now explained that the time

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Apparatus for determining...

constant $T = L/R$ is no longer constant when L and R are variable, and the conception of the instantaneous value τ of the time constant is therefore introduced: $\tau = u/(du/dt)$ (17). The apparatus described also enables the measurement of τ. Fig. 9 shows the measurement of τ for the excitation of the winding of an electric machine. The curve of this process is no longer exponential and τ changes therefore with the time. There are 10 figures.

ASSOCIATION: Institut elektroniki i vychislitel'noy tekhniki AN Latviyskoy SSR (Institute of Electronics and Computer Engineering of AS, Latviyskaya SSR)

SUBMITTED: June 6, 1960

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.[Jakubaitis, E.]

Most important problems in the Physics and Technical Sciences Section of the Academy of Sciences of the Latvian S.S.R. Vestis Latv ak no.7:135-136 '61.

(Latvia--Physics--Research).
(Latvia--Technology)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.[Jakubaitis, J.]; YADINA, V.

Optimum parameters of magnetic choke-coupled amplifiers. Vestis Latv ak no.9:31-41 '61.

1. Akademiya nauk Latviyskoy SSR, Institut elektroniki i vychislitel'noy tekhniki.

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PHASE I BOOK EXPLOITATION SOV/6399

Yakubaytis, Eduard Aleksandrovich

Osnovy tekhnicheskoy kibernetiki (Principles of Engineering Cybernetics). Riga, Izd-vo AN LatSSR, 1962. 286 p. Errata slip inserted. 15,000 copies printed.

Sponsoring Agency: Institut elektroniki i vychislitel'noy tekhniki Akademii nauk Latviyskoy SSR. Rizhskiy politekhnicheskiy institut Soveta narodnogo khozyaystva Latviyskoy SSR.

Ed.: Ye. Savel'yeva; Tech. Ed.: R. Bokman.

PURPOSE: This book is intended for technical personnel concerned with the automation of the production of industrial, transportation and agricultural enterprises. Moreover, it could be used as a textbook in advanced courses at various institutions of higher technical education.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

Principles of Engineering Cybernetics SOV/6399

COVERAGE: The book discusses engineering cybernetics, which is defined as that section of cybernetics dealing with the theoretical problems connected with the development of the machinery which performs complex logical automatic control operations. The author reviews the utilization of analogy, the theory of information, adaptive systems, the random nature of the behavior of complex cybernetics, the utilization of the statistical theory, and of the theory of nonlinear systems. The author mentions A.I. Berg, S.A. Lebedev, A.A. Dorodnitsyn, A.A. Fel'dbaum, V.V. Solodovnikov, A.G. Ivakhnenko, and V.M. Glushkov as prominent Soviet scientists in the field of cybernetics. He thanks A.N. Sklyarevich, Candidate of Technical Sciences, M.P. Vayvars, and A.K. Baums for their assistance. There are 15 references, all Soviet, including 6 translations.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

S/197/63/000/001/002/002
B172/B186

AUTHOR: Yakubaytis, E.

TITLE: Formalized synthesis and rules for the simplification of multi-cycle logic circuits

PERIODICAL: Akademiya nauk Latviyskoy SSR. Izvestiya, no. 1 (186), 1963, 67 - 74

TEXT: As is commonly known, any complex logic circuit can be synthesized on the basis of a complete system of functions of the algebra logic and shift operation. In conjunction with this problem, the author describes a method for the formalized synthesis of such circuits and conversion conditions for signals and pulses located on various discrete levels. For the synthesis of a logic system with a finite number of inputs and a single output, the function f is represented as a disjunction of pulses which appear on those multi-cycles where f is different from zero:

$$f = \bigvee_{\substack{i=0 \\ j=0}}^{p-1} f_j^{i+1,i};$$

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$f_j^{i+1,i}$ is the pulse on the j-th cycle (from signals transmitted to the input of the circuit; p - 1 is the total number of pulses (any positive integer number, including infinity). The synthesis is materialized for two examples: 1) for a square pulse generator with a reciprocal of the pulse duty factor, equaling 0.5, and a pulse period of 2τ; 2) for a logic device, capable of converting binary numbers into a number of pulses; information on the digit order number is transmitted in parallel (simultaneously). Rules for the conversion of logic expressions (conjunctions and disjunctions) occurring in multi-cycle circuits are also given. There are 5 figures and 1 table.

ASSOCIATION: Institut elektroniki i vychislitel'noy tekhniki AN Latv.SSR
(Institute of Electronics and Computer Engineering AS LatSSR)

SUBMITTED: November 17, 1962

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBAYTIS, E.A. [Jakubaitis, E.], akademik

Cybernetics and the development of science. Izv.AN Latv.SSR no.12:24-26 '63. (MIRA 17:3)

1. AN Latviyskoy SSR.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

ACCESSION NR: AT4038166 S/2690/63/005/006/0101/0118

AUTHOR: Yakubaytis, E. A.

TITLE: Feedback in logical nets synthesized on the basis of one type of complete truth elements

SOURCE: AN LatSSR. Institut elektroniki i vy*chislitel'noy tekhniki. Trudy*, v. 5, 1963. Avtomatika vy*chislitel'naya tekhnika (automation and computer engineering), no. 6, 101-118

TOPIC TAGS: logic circuit, logic network, feedback, logic system simulation, computer theory

ABSTRACT: In view of the little attention paid hitherto in the literature to logical nets based on logic elements having one or several feedback loops, the author discusses the synthesis of nets of this type from various types of full-truth logic elements (OR-NOT, NOT-NOT-OR, AND-NOT, NOT-NOT-AND). Separate analysis of each of

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ACCESSION NR: AT4038166

these circuits shows that the feedback loops of a logical net synthesized from one type of complete-truth logic element must contain only an even number of these elements. A subnet with OR-NOT or NOT-NOT-AND elements is a device which memorizes the fact that at least one signal (unity) has appeared at any of the even inputs, while a subnet with AND-NOT or NOT-NOT-OR elements remembers the appearance of negation of a signal at the odd inputs. In the former case the memory is erased by applying unity to the odd input, and in the latter by applying zero to the even input. A generalized truth table is given for feedback subnets and a procedure is described for the synthesis of logical nets on the basis of an OR-AND element. This procedure and the tables that are used in it can be extended to all other types of logic elements. Orig. art. has: 3 figures, 2 formulas, and 3 tables.

ASSOCIATION: Institut elektroniki i vy*chislitel'noy tekhniki AN LatSSR (Institute of Electronics and Computer Engineering, AN LatSSR)

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ACCESSION NR: AT4038166

SUBMITTED: 00 DATE ACQ: 04Jun64 ENCL: 00

SUB CODE: DP NR REF SOV: 002 OTHER: 001

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

TOPIC TAGS: logical circuit, feedback

ABSTRACT: Methods of analysis and formalized synthesis of logical circuits

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

the relations between function tables and cycle diagrams formulated in these

45 formulas, and 5 tables.

ASSOCIATION: Institut elektroniki i vychislitel'noy tekhniki AN Latvian

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

TITLE: Sequential asynchronous circuits without delay elements

SOURCE: AN LatSSR. Izvestiya, no. 10, 1964, 31-38

TOPIC TAGS: electronic circuit

Abstract: The paper represents an attempt to synthesize sequential circuits of [illegible] input signals are negligibly small. Specifically, a sequential circuit [illegible] n inputs and a single output is studied. The results can be extended to include the case of multiple outputs.
The author's earlier paper (Avtomatika i vychislitel'naya tekhnika 9 Riga '64) [illegible] the basic equations for a sequential circuit. Here the [illegible] formed as follows to allow for the limitations imposed in this study.

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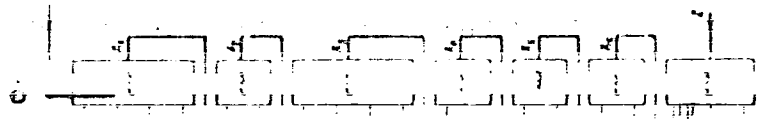

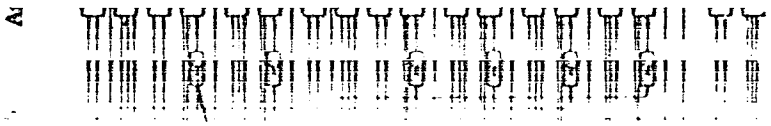

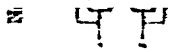

Orig. art. has 2 figures, 42 formulas, and 2 tables.

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ACCESSION NR: AP5017166

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ASSOCIATION: Institut' elektroniki i vychislitel'noy tekhniki AN Latv. SSR (Institute of Electronics and Computer Engineering, AN Latv. SSR)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

L 04413-67

ACC NR: AT6019744 SOURCE CODE: UR/3192/65/000/011/0119/0132

AUTHOR: Yakubaytis, E. A.; Vayvars, M. P.; Frantsis, T. A.; Laksa, Ya. Ya. 56 B+1

ORG: none

TITLE: An automaton which determines the breakdown voltage of high-voltage power diodes

SOURCE: Akademiya nauk Latviyskoy SSR. Institut elektroniki i vychislitel'noy tekhniki. Avtomatika i vychislitel'naya tekhnika, no. 11, 1965, 119-132

TOPIC TAGS: semiconductor diode , silicon diode, dielectric breakdown, automaton

ABSTRACT: The authors describe an automaton capable of determining the breakdown voltage of diodes in the 150 to 2,000 v range and of inverse currents up to 200 ma. The paper presents the basic equations, a description of the device (a block diagram of the automaton, a diagram of the high-voltage voltage-to-binary code converter, logical scheme, decoder scheme, and automatic power and counter control diagram), and the logic of its operation. The load curves of the nonlinear block, the volt-ampere characteristic of diodes, and limiting values of voltage increments are also given. Orig. art. has: 14 formulas, 9 figures, and 4 tables.

SUB CODE: 09, 20/ SUBM DATE: Nov64/ ORIG REF: 003

Card 1/1 UDC: 621.382.2: 621.317-52

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

L 26705-66

ACC NR: AT5028451 SOURCE CODE: UR/2690/65/009/000/0145/0148

AUTHOR: Yakubaytis, E. A.; Shmaukstel', N. P. 29 B+1

ORG: none

TITLE: Synthesis and minimization of diagrams with real AND-NOT or OR-NOT logical elements

SOURCE: AN LatSSR. Institut elektroniki i vychislitel'noy tekhniki. Trudy, v. 9, 1965. Avtomatika i vychislitel'naya tekhnika, 145-148

TOPIC TAGS: logic design, minimization, function, algorithm, computer logic

ABSTRACT: If, according to the rule $\overline{f(A_1, \ldots A_n, +, \cdot)} = f(\bar{A}_1, \ldots, \bar{A}_n, \cdot, +)^1$, the NOT operation be performed on a specified disjunctive normal form (DNF) of a function free from hazardous contests, the resulting conjunctive normal form (CNF) will also be free from hazardous contests. If DNF and CNF be subjected to the Shannon transformation, the resulting disjunctive and conjunctive inverse forms (a) do not have hazardous contests and (b) describe OR-NOT and AND-NOT diagrams, respectively. Hence, this algorithm is recommended: (1) By using the Quine-McCluskey

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L 26705-66

ACC NR: AT5028451

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algorithm, a curtailed DNF of the corresponding function, free from hazardous contests, is obtained; (2) The curtailed DNF is minimized; (3) The Shannon transformation is performed; (4) If a disjunctive inverse function is synthesized, the function f_i should be negated (NOT). An example illustrates the method. Orig. art. has: 12 formulas.

SUB CODE: 09,12/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 003

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

L 04410-67 EWT(d) IJP(c)

ACC NR: AT6019740 SOURCE CODE: UR/3192/65/000/011/0049/0057

AUTHOR: Yakubaytis, E. A.; Shmaukstel', N. P. 37 B+1

ORG: none

TITLE: Methodology for the establishment of the minimal disjunctive normal form of functions free of hazardous competitions

SOURCE: Akademiya nauk Latviyskoy SSR. Institut elektroniki i vychislitel'noy tekhniki. Avtomatika i vychislitel'naya tekhnika, no. 11, 1965, 49-57

TOPIC TAGS: electric relay, function theory, logic element

ABSTRACT: For the establishment of the minimal normal disjunctive form (16) the authors offer a method for the establishment of all dead-end form free of competitions. Dead-end are those forms for which the removal of even a single implicant is followed by either the disruption of the logical equivalence or the appearance of hazardous competitions. To obtain such dead-end forms from the abreviated disjunctive normal form certain simple implicants are removed from the function in such a way that the remaining implicants cover all the proximities appearing in the perfect disjunctive normal form of the function. The method is based on the con-

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ACC NR: AT6019740

junctive representation of a certain table called the gluing table. Two illustrative examples are worked out and a program for the minimum disjunctive normal form is outlined. Orig. art. has: 4 formulas, 2 figures, and 3 tables.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

L 26703-66

ACC NR: AT5028449 SOURCE CODE: UR/2690/65/009/000/0111/0132

20

AUTHOR: Yakubaytis, E. A.

B+1

ORG: none

TITLE: Synthesizing sequential asynchronous logical diagrams

SOURCE: AN LatSSR. Institut elektroniki i vychislitel'noy tekhniki. Trudy. v. 9, 1965. Avtomatika i vychislitel'naya tekhnika, 111-132

TOPIC TAGS: logic design, sequence switch, switching circuit

ABSTRACT: Based on the classical D. A. Huffman work (J. Franklin Inst., 1954, 257, 3-4), a method is set forth of synthesizing asynchronous sequential logical diagrams; their steps are represented in terms of inertial subdiagrams. The logical diagram is specified in step-table and step-diagram languages. From the step table, a step diagram is constructed. In an inertial subdiagram, the transition to a two-valued step leaves the value of the output variable unchanged. The latter is determined by a set of steps from which transitions to the step in question are specified. The output variable of the sequential diagram is described by this disjunction:

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$Z = V_1 + V_2 + \ldots + V_h + Y_1 + Y_2 + \ldots + Y_m$, where h is the number of single-valued steps with Z = 1 and m is the number of two-valued steps with Z = 1. The resulting equations are minimized by conventional methods, and the diagram is checked for hazardous contests. The above method of synthesis is illustrated by two examples. Orig. art. has: 9 figures, 36 formulas, and 10 tables.

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L 05204-67 EWT(d)/EWP(e)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) BB/GD

ACC NR: AM6014905 Monograph UR/

YAkubaytis, Eduard Aleksandrovich

Asynchronous logical automata (Asinkhronnyye logicheskiye avtomaty) Riga, Izd-vo "Zinatne", 1966. 378 p. illus., index. (At head of title: Akademiya nauk Latviyskoy SSR. Institut elektroniki i vychislitel'noy tekhniki) Errata slip inserted. 3500 copies printed.

TOPIC TAGS: logic circuit, logic element

PURPOSE AND COVERAGE: This book is intended for scientific and technical personnel concerned with the development of automatic control systems, as well as for students at higher schools of education specializing in the field of automation. The books deals with problems related to analysis and synthesis of asynchronous logical automatic devices. It discusses automatic devices without feedback circuits, automatic devices utilizing one or several feedback circuits, and automatic devices utilizing delay elements. Special attention is paid to automatic devices using feedback circuits, the methods of their synthesis, the reduction of their costs, and the detection and elimination of conflicts within them. Many illustrative examples are given. The aim of the book is to provide technical personnel with methods for developing logical automatic devices on

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the basis of standard logical units.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

AUTHOR: Yakubaytis, Z. A.; Vayvar[illegible], M. [illegible]; Fran[illegible], T. A.

TITLE: [illegible] voltages

CITED SOURCE: Izv. AN LatvSSR. Ser. fiz. i tekhn. n., no. 3, 1964, [illegible]

TOPIC TAGS: [illegible]

product as compared to purely analog [illegible] voltage-to-code converter; it is based on the principle of determining a multiplier for the known value of the multiplicand that ensures the maximum product. The voltages are determined by a number of series-connected silicon Zener diodes. The [illegible] diode voltages correspond to various powers of [illegible]. The diodes are [illegible]

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010008-4

YAKUBENAYTE, R.P. [JAKUBĖNAITĖ, R.]

Carex humilis Leyss. and Bothrychium multifidum (Gmel.) Rupr. in Pronsk District, Ryazan Province. Nauch.dokl.vys.shkoly; biol. nauki no.1:142-143 '58 (MIRA 11:8)

1. Predstavlena kafedroy geobotaniki Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(PRONSK DISTRICT--BOTANY)

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YAKUBCHENIS, V. I.

Paper Industry

Producing high-grade paper. Bum. prom. 28 no. 2, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

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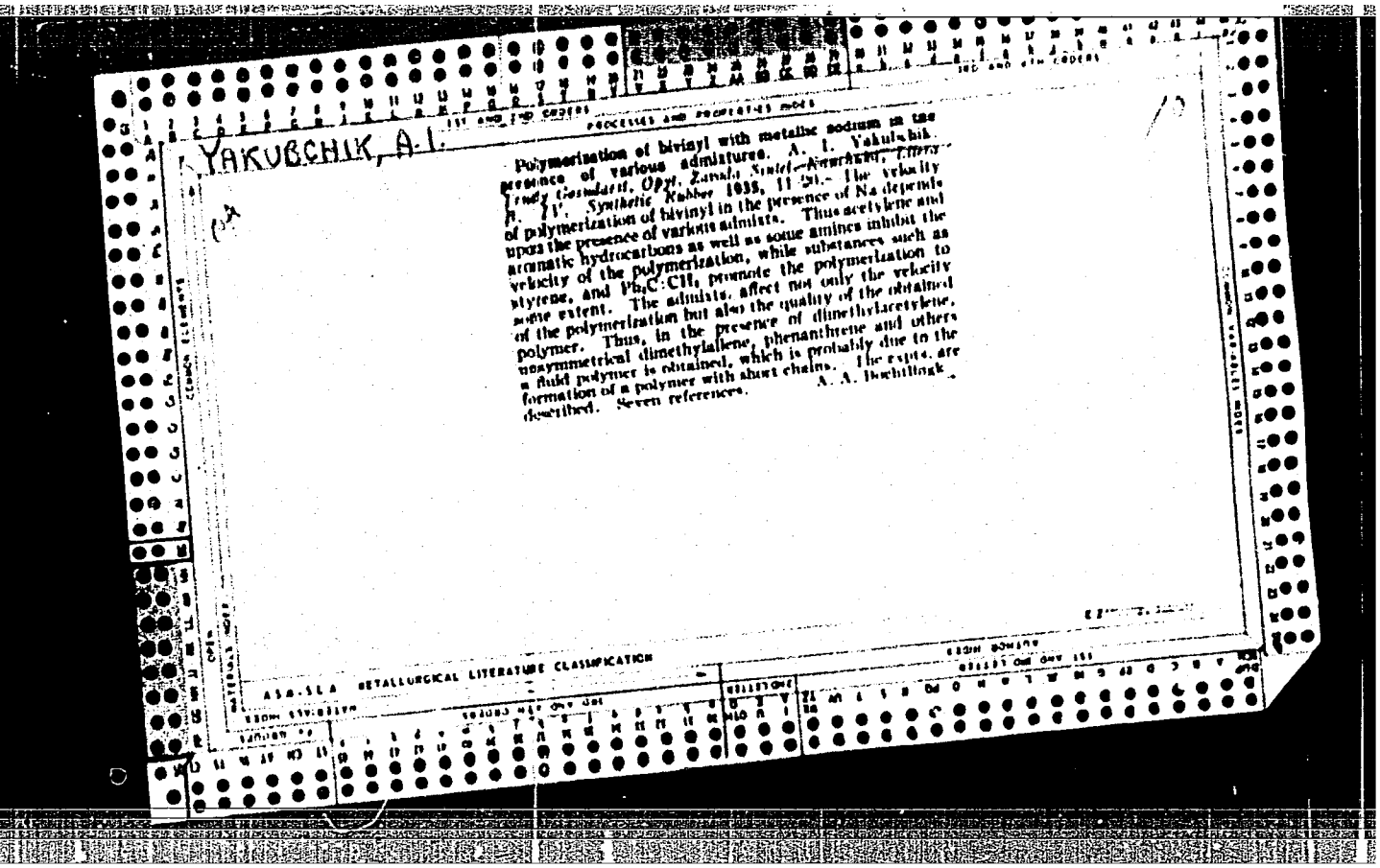

YAKUBCHIK, A.I.

PROCESSES AND PROPERTIES INDEX

Polymerization of bivinyl with metallic sodium in the presence of various admixtures. A. I. Yakubchik. *Trudy Gosudarst. Opyt. Zavoda Sintet.-Kauchuka, Litera-R. IV. Synthetic Rubber* 1935, 11:20.- The velocity of polymerization of bivinyl in the presence of Na depends upon the presence of various admixts. Thus acetylene and aromatic hydrocarbons as well as some amines inhibit the velocity of the polymerization, while substances such as styrene, and $Ph_2C:CH_2$ promote the polymerization to some extent. The admixts. affect not only the velocity of the polymerization but also the quality of the obtained polymer. Thus, in the presence of dimethylacetylene, unsymmetrical dimethylallene, phenanthrene and others a fluid polymer is obtained, which is probably due to the formation of a polymer with short chains. The expts. are described. Seven references. A. A. Bochtlingk.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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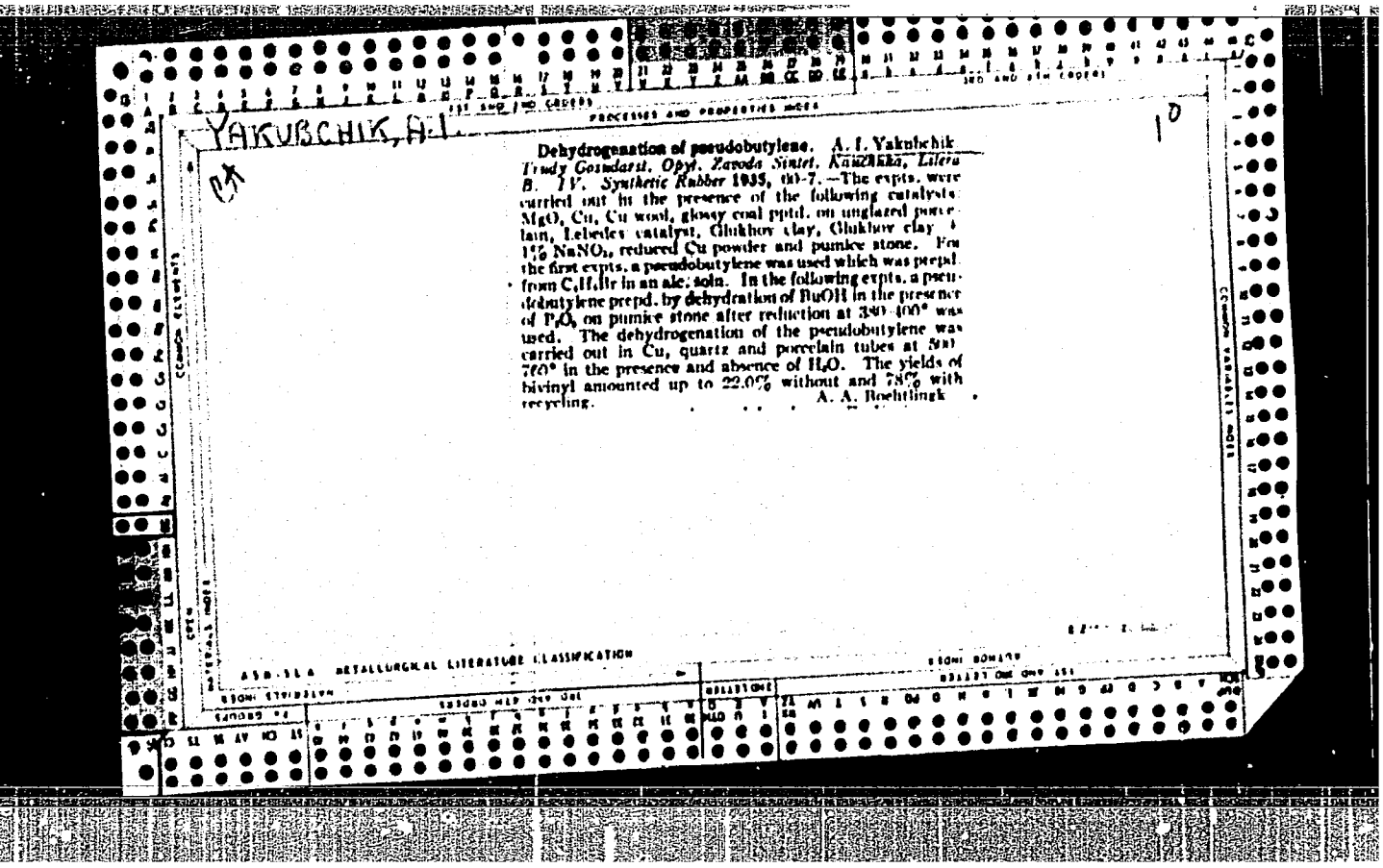

YAKUBCHIK, A.I.

Dehydrogenation of pseudobutylene. A. I. Yakubchik *Trudy Gosudarst. Opyt. Zavoda Sintet. Kauchuka, Lifera B. IV. Synthetic Rubber* 1935, 00-7.—The expts. were carried out in the presence of the following catalysts: MgO, Cu, Cu wool, glossy coal pptd. on unglazed porcelain, Lebedev catalyst, Glukhov clay, Glukhov clay + 1% $NaNO_2$, reduced Cu powder and pumice stone. For the first expts. a pseudobutylene was used which was prepd. from C_4H_9Br in an alc. soln. In the following expts. a pseudobutylene prepd. by dehydration of BuOH in the presence of P_2O_5 on pumice stone after reduction at 340–400° was used. The dehydrogenation of the pseudobutylene was carried out in Cu, quartz and porcelain tubes at 500–760° in the presence and absence of H_2O. The yields of bivinyl amounted up to 22.0% without and 78% with recycling.

A. A. Boehtlingk

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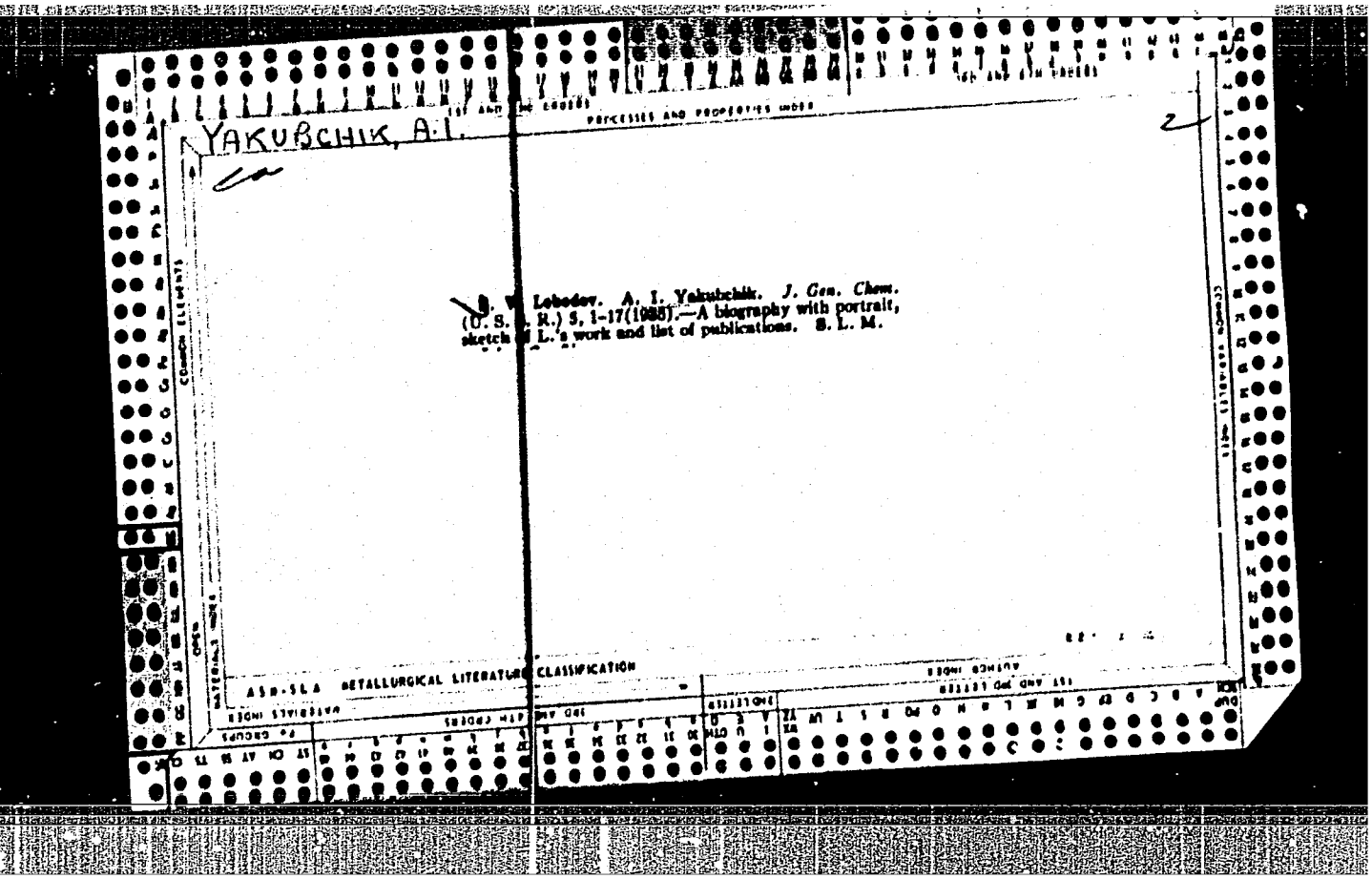

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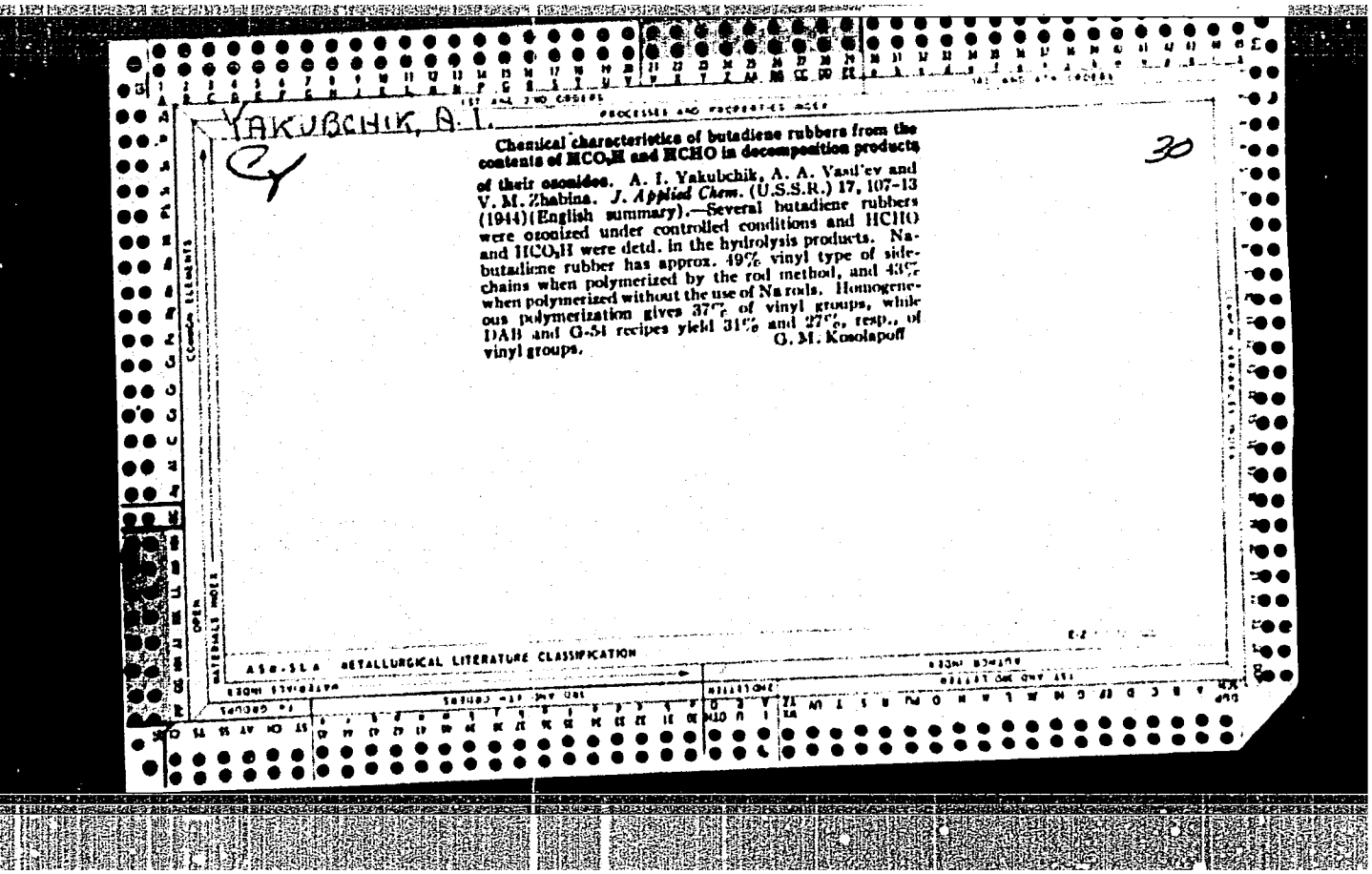

YAKUBCHIK, A. I.

Cy

30

Chemical characteristics of butadiene rubbers from the contents of HCO_2H and HCHO in decomposition products of their ozonides. A. I. Yakubchik, A. A. Vasil'ev and V. M. Zhabina. *J. Applied Chem.* (U.S.S.R.) 17, 107–13 (1944)(English summary).—Several butadiene rubbers were ozonized under controlled conditions and HCHO and HCO_2H were detd. in the hydrolysis products. Na-butadiene rubber has approx. 49% vinyl type of side-chains when polymerized by the rod method, and 43% when polymerized without the use of Na rods. Homogeneous polymerization gives 37% of vinyl groups, while DAB and G-51 recipes yield 31% and 27%, resp., of vinyl groups.

G. M. Kosolapoff

A50-51A METALLURGICAL LITERATURE CLASSIFICATION

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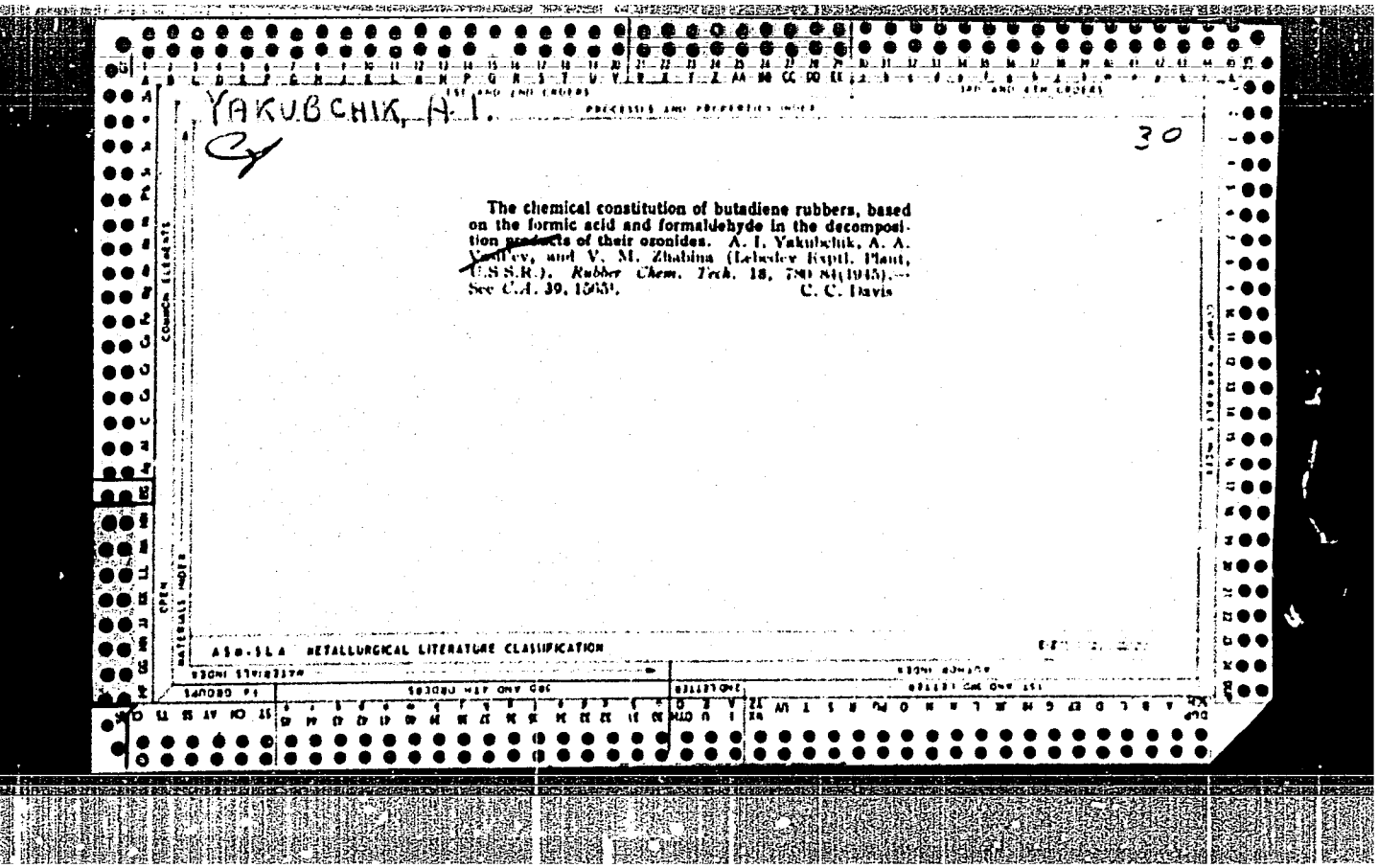

YAKUBCHIK, A. I.

30

The chemical constitution of butadiene rubbers, based on the formic acid and formaldehyde in the decomposition products of their ozonides. A. I. Yakubchik, A. A. Vodilev, and V. M. Zhabina (Lebedev Exptl. Plant, U.S.S.R.). *Rubber Chem. Tech.* 18, 780-84(1945).—See *C.A.* 39, 1565[1]. C. C. Davis

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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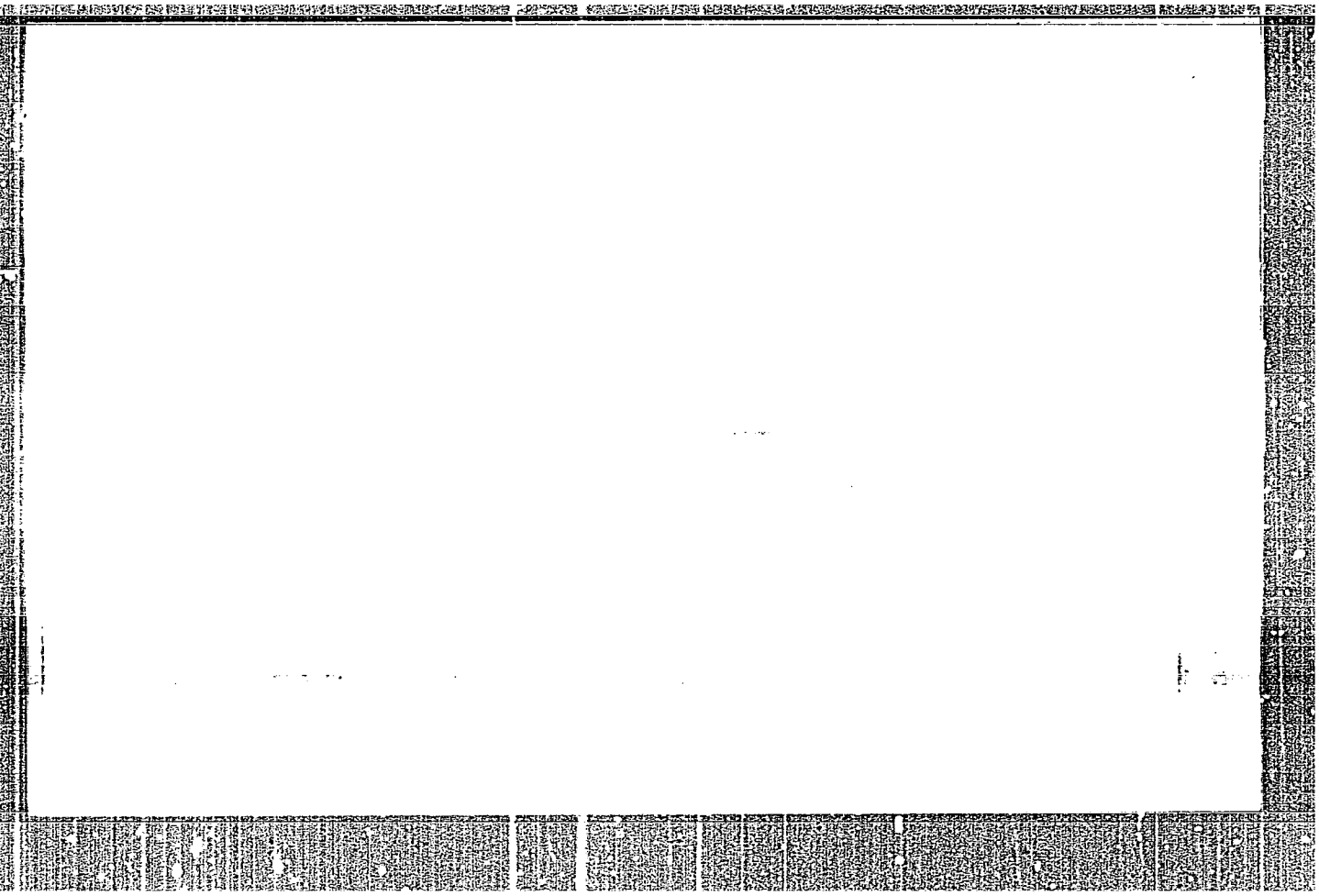

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Yakubchik, A. I.

1

Ozonization of unsaturated compounds. I. Preparation of curves of the absorption of ozone by unsaturated compounds. A. I. Yakubchik, N. G. Kasatkina, and T. E. Pavlovskaya (State Univ., Leningrad). *Zhur. Obshchei Khim.* 25, 1472–7(1955).—An app. consisting of a series of absorbers contg. the sample in $CHCl_3$ and KI solns. in phosphate buffer is employed for quant. detn. of O_3 uptake by unsatd. compds. The detn. is based on titration of iodine liberated by the O_2-O_3 stream before and after passing through the test soln. The end of the reaction is reached when the 2 titers are equal. Curves of the kinetics of absorption of O_3 in several compds. are shown, including $(:CMe_2)_2$, elaidic acid, diallyl, $(MeC:)_2$, $(PhC:)_2$, allyl alc., 2-methyl-2-hepten-6-one, 4,6-dimethyl-6,8-menthadiene, $Me_2CC:CH$, $PhCH:CH_2$, 2,4-hexadiene, $Me_2CC:CMe$, $MeCH:CHCO_2Me$, piperylene, 3-ethenylcyclohexene. Usually the absorption in the several unsatd. bonds shows different rates detectable on the curves. The uptake of O_3 is generally the theoretical, except for cases listed below with % O_3 absorbed relative to theoretical: 2-methyl-2-hepten-6-one, 144.9%, 4,6-dimethyl-6,8-menthadiene 125%, $Me_2CC:CH$ 112.1%, $MeC:CCMe_2$ 126%, $MeCH:CHCO_2Et$ 119.3%.

G. M. Kosolapoff

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YAKUBCHIK, A. I.

USSR/Organic Chemistry - Synthetic Organic Chemistry, [redacted]-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61426

Author: ~~Yakubchik, A. I.,~~ Kasatkina, N. G.

Institution: None

Title: Ozonization of Unsaturated Compounds. II. Investigation of the Curves of Absorption of Ozone by Unsaturated Compounds and Their Mixtures

Original Periodical: Zh. obshch. khimii, 1956, 26, No 3, 699-706

Abstract: Investigated were ozone absorption curves (CAC) of various unsaturated compounds (UC) and of their mixtures for the purpose of ascertaining the influence of structure of UC on the rate of addition of ozone. UC can add a whole or a fractional number of ozone mols. A fractional number is added by UC containing CO-group, tert.-C_4H_9 and C_6H_5. Substances which absorb a whole number of [redacted] ozone mols have OAC without [redacted]ection point (compounds having one or several isolated C = C bonds and acetylenic compounds) or with

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USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61426

Abstract: an inflection point (UC) containing C = C and C ≡ C bonds, a conjugated system of C = C bonds, [redacted] = C bonds of which 2 are conjugated, and 2 C = C bonds of which one is part of a cycle). For UC absorbing a fractional number of ozone mols OAC with an inflection point have been obtained which are characteristic of substances containing C = C bonds and C_6H_5-group, C ≡ C bonds and C_6H_5 group or several C = C bonds one of which is conjugated with a CO-group. From the shape of OAC an opinion can be formed concerning the nature of multiple bonds and their mutual distribution. It is possible to compare the amount of ozone for the different portions of the curve and determine how many bonds and which bonds are ozonized first and most rapidly. The possibility to draw conclusions concerning the structure of the substance being ozonized on the basis of the shape of OAC has been confirmed by analyses of the products of ozonolysis of styrene and a mixture of diallyl and dimethyl acetylene (I). OAC of mixtures do not differ from OAC of individual compounds. There are presented OAC of the following substances and mixtures (for the mixtures the figures in parentheses show the amount of the components, in %): vinyl butyl acetylene;

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USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61426

Abstract: allyl alcohol (II) (49.4) methyl tert-butyl ethylene (III) (50.6); II (42.5) + styrene (54.8); CM_2 = $CHCOOC_2H_5$ (53.1) + elaidic acid (IV) (46.9); II (68.3) + IV (31.7); II (65.5) + tetramethylethylene (V) (34.5); II (50.8) + IV (49.2); II (33.9) + IV (661.); isopropenyl acetylene; diallyl (39.7) + I (60.3); III (46.7) + V (53.3); diallyl + diisopropenyl; ethyl ester of cinnamic acid (58.1) + IV (41.9); styrene (36.1) + IV (63.9). There are shown typical forms of OAC of various UC. Communication I, see Referat Zhur - Khimiya, 1956, 46820.

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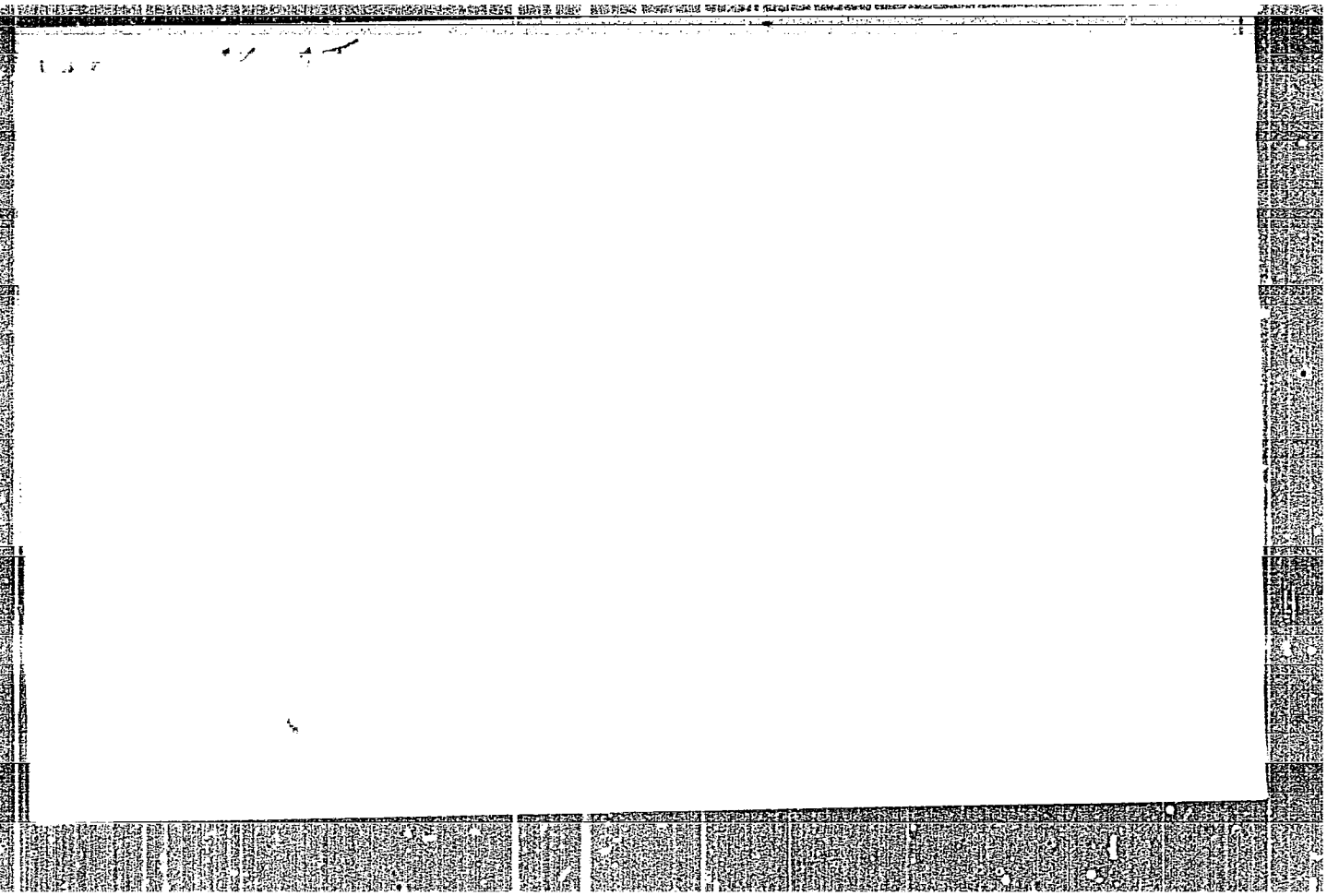

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YAKUBCHIK, A.I.

USSR/Chemistry of High Molecular Substances. F

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 27071.

Author : Yakubchik, A.I., Gromova, G.N.
Inst :
Title : Hydrogenation of Solutions of Divinyl Rubber under Atmospheric Pressure and at Room Temperature. I. Preparation of Rubbers Hydrogenated to Various Degrees and Study of Their Properties.

Orig Pub: Zh. obshch. khimii, 1956, 26, No. 5, 1381 - 1390.

Abstract: The speed of hydrogenation of SRB (the content of the 1-2 structure = 56.6%) in a hexane or heptane solution with catalysts Pd on $CaCO_3$, Pd on Ni, platinum black of Pt oxide, platinized carbon, or powdered Ni catalyst at room temperature and under atmospheric pressure

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USSR/Chemistry of High Molecular Substances. F

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does not depend on the intensity of stirring and the solution concentration (0.2 to 0.8%), the ratio rubber : catalyst being constant. The hydrogenation speed (HS) rises together with the increase of the amount of the catalyst and drops sharply with time. The sharp rise of HS at the addition of fresh catalyst and the lower HS of the second weighed sample of rubber as compared with the first indicate that the catalyst activity decreases during the process of hydrogenation. The total unsaturation determined with IBr decreases with the increase of the hydrogenation depth, the ratio between the exterior double bonds (1-2 structure) determined by the ozonolysis method and the interior bonds (1-4 structure) decreases, i.e. the exterior

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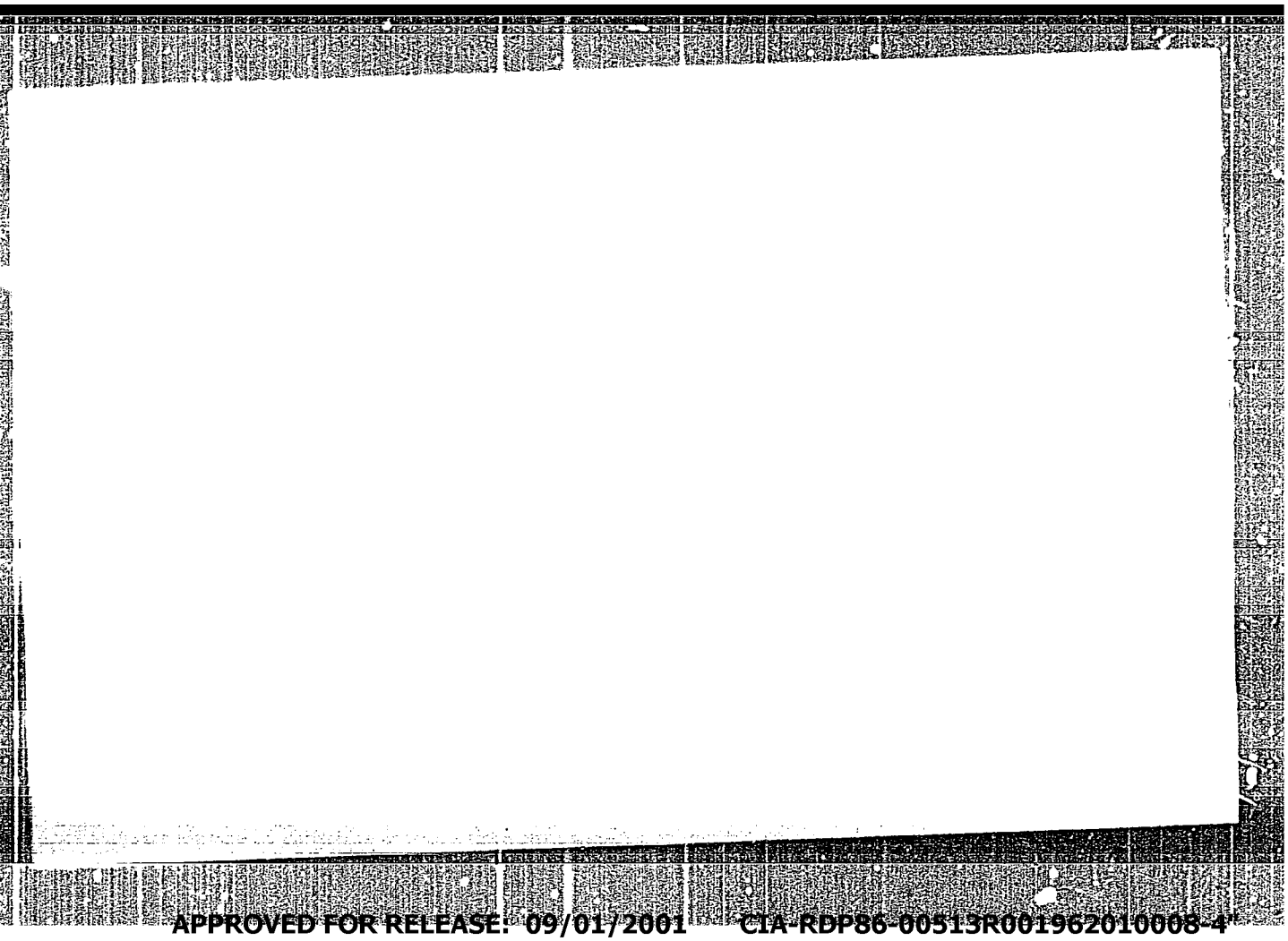

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