SOV/142-58-5-4/23

9(2)

AUTHORS: Konstantinovskiy, A.G., and Chervetsov, V.V.

TITLE: Stabilization of Semiconductor Triode Multivibrators

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, radiotekhnika, 1958, Nr 5, pp 544-550 (USSR)

ABSTRACT: The authors present a method of temporal stabilization of semiconductor triode multivibrators. The stabilization is realized with the help of switched-in oscillatory circuits within the circuit of basic triodes. The diagram of a one-period multi-vibrator is shown in Fig.1. Until the output triode (KT_1) is closed, the primary current I_0 runs through the inductance of the oscillatory circuit. At the moment of locking the triode current, I_0 disappears, and by the accumulated induction of the magnetic energy a free damped wave appears in the circuit. This process is described by equation (1). $\frac{d^2u_2}{dt^2} + \frac{1}{Cr}\frac{du_2}{dt} + \frac{1}{IC}u_2 = 0$. u_2 is in this equation the voltage on the circuit, r is the equivalent parallel

Card 1/3

CHERVETSOV, V. V.: Master Tech Sci (diss) -- "Problems of the analysis of multivibrators on plane semiconductor triodes". L'vov, 1959. 14 pp (Min Higher Educ Ukr SSR, L'vov Polytech Inst), 150 copies (KL, No 11, 1959, 120)

IL'NITSKIY, L.Ya.; CHERVETSOV, V.V.

Pulse generator with the pulse repetition period proportional to the controlling voltage. Radiotekhnika 16 no.2:71-73 F '61. (MIRA 14:3)

1. Deystvitel'nyye chleny Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi im. A.S.Popova.
(Oscillators, Electric) (Pulse techniques (Electronics))

S/142/62/005/004/010/010
E192/E382

AUTHORS: Il'nitskiy, L.Ya., Kravchenko, V.A. and Chervetsov, V.V.

TITLE: A pulse-dividing device

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v. 5, no. 4, 1962, 534 - 537

TEXT: The device is designed for determining the ratio of the currents of two mass spectrometers employed in analyzing the composition of gases. The system is based on the use of rectangular pulses whose duration is varied directly proportionately to one of the input signals and inversely proportional to the other. This is done in the system illustrated by the block diagram of Fig. 1, where the first element represents a circuit for the linear charging of a condenser. The amplitude of the sawtooth voltage is thus given by:

$$U_{\Pi} = \frac{T_3}{\tau_3} U_1 \qquad (1)$$

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S/142/62/005/004/010/010
E192/E382

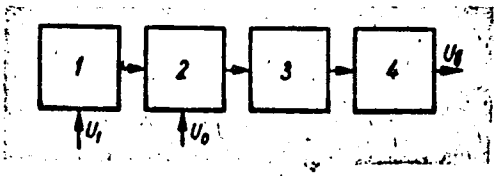
A pulse-dividing device

It is seen, therefore, that the duration of the output pulses is proportional to the limiting voltage U_0 and inversely proportional to the charging voltage of the condenser U_1. A detailed diagram of the circuit performing these operations is given. This employs six double triodes and three semiconductor rectifiers. The circuit can also be based on transistors. There are 3 figures.

ASSOCIATION: Institut avtomatiki UkrSSR (Institute of Automatics of the UkrSSR)

SUBMITTED: May 17, 1961 (initially)
December 25, 1961 (after revision)

Fig. 1:



Card 3/3

ACC NR: AP7001487

men was PNP followed by PNC, PNAD and PNA-2. The hardened polyester resin with the highest thermal stability was PNC followed by PNAD, PNP and PNA-2. The experimental data indicate significant advantages in the radiation method of cross-linking for these types of polyesters in comparison with thermochemical methods. Orig. art. has: 4 figures, 3 tables.

SUB CODE: 07,11/ SUBM DATE: None/ ORIG REF: 002/ OTH REF: 002

Card 2/2

CHERVEV, I.

CHERVEV, I. Experiment of the Balchik Forest Service in transforming the low-truck forest into a high-truck forest b y changing the types of trees. p. 218. Vol. 12, no. 5, May 1956. GORSKO STOPANSTVO. Sofiia, Bulgaria

SOURCE: East European Accessions List Vol. 6 No. 4 April 1957
(EEAL)

L 32274-65 EPF(n)-2/EWT(d)/EWP(1)/ Pg-4/Pk-4/Pl-4/Po-4/Pq-4/Pu-4 IJP(c) WW/BC

ACCESSION NR: AP5006274 S/0103/65/026/002/0235/0245

AUTHOR: Chervin, V. I. (Moscow)

TITLE: Synthesis of an optimal control program taking into account the random errors of its realization

SOURCE: Avtomatika i telemekhanika, v. 26, no. 2, 1965, 235-245

TOPIC TAGS: optimum control synthesis, optimum control program, disturbed motion, program realization random error, optimality condition, Fredholm equation

ABSTRACT: A study is made of a control system whose disturbed motion is described by the equation

$$\dot{X} = aX + Mu, \qquad (1)$$

where $a = \{a_{ij}(t)\}$ is an n x n matrix and $a_{ij}(t)$ are known functions of time defined and continuous on the interval [o, T], $M = \{M_{ik}(t)\}$ is an n x n matrix and $M_{ik}(t)$ are random functions of time, $X = \{X_i\}$ is an n x 1 matrix and $u = \{u_k(t)\}$ is an r x 1 control matrix. The random coefficients M of u are determined by errors in

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L 32274-65

ACCESSION NR: AP5006274

realizing the control function (the control program) u. The problem as defined consists of determining that control program which takes the system from the exact initial phase state x_0 to the prescribed final phase state x in a finite time T with the best possible accuracy E. The criterion of the accuracy E is expressed in the form of a certain functional I[u] and the problem of the synthesis of an optimal control program is reduced to the following variational problem: to find a vector function u(t) which minimizes the functional I[u]. The necessary and sufficient optimality conditions for the functional I[u] are derived in the form of a Fredholm integral equation of the first kind with a symmetrical kernel. I[u] is analyzed for optimal values of u derived from the integral equation. It is shown that there exist optimal programs which are invariant to certain types of errors in their realization. The author analyzes the necessary and sufficient conditions for minimizing the functional I[u] in the case when the kernels of the integral equations expressing these conditions are degenerate. Orig. art. has: 29 formulas. [LK]

ASSOCIATION: none

SUBMITTED: 06Jun64	ENCL: 00	SUB CODE: MA
NO REF SOV: 003	OTHER: 003	ATD PRESS: 3202

Card 2/2

CHERVINENKIS, YA. M.

USSR/Academy of Sciences Apr 49

"New Books Published by the Academy of Sciences USSR" 1½ pp

"Vest Ak Nauk SSSR" No 4

Cites 22 works on: physicomathematical sciences, geologico-geographical sciences (among them, "Complex Climatology," by L. A. Chubukov), biological sciences (among them, "Flora of the USSR"), technical sciences, and excerpts from contemporary scientific series (among them, "Power Transmission by Direct Current," by Ya. M. Chervinenkis, Cand Tech Sci).

PA 49/49T1

1. CHERVINSKAYA, A., BAKHMUTOVA, V.

2. USSR (600)

4. Oils and Fats

7. Separating beef fat in the ISA separator. Engs. Mias.ind. SSSR 23 no. 6, 1952

9. Monthly List of Russian Accessions. Library of Congress. March 1953. Unclassified.

LYAKHOVICH, V.V.; NONESHNIKOVA, V.I.; CHERVINSKAYA, A.D.

Some data on accessory minerals of granitoids. Trudy Inst. min., geokhim. i kristallokhim. red. elem. no. 3:104-126 '59. (MIRA 14:5)

(Minerals) (Granite)

CHERVINSKAYA, A. D.

31

PHASE I BOOK EXPLOITATION SOV/5740

Akademiya nauk SSSR. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov

Voprosy mineralogii, geokhimii i genezisa mestorozhdeniy redkikh elementov (Problems in Mineralogy, Geochemistry, and Deposit Formation of Rare Elements) Moscow, Izd-vo AN SSSR, 1960. 253 p. (Series: Its: Trudy, vyp. 4) Errata printed on the inside of back cover. 2,200 copies printed.

Chief Ed.: K. A. Vlasov, Corresponding Member, Academy of Sciences USSR;
Resp. Ed.: V. V. Lyakhovich; Ed. of Publishing House: L. S. Tarasov;
Tech. Ed.: P. S. Kashina.

PURPOSE: This book is intended for geologists, mineralogists, and petrographers.

COVERAGE: This is a collection of 23 articles on the formation, geology, mineralogy, petrography, and geochemistry of deposits of rare elements in Siberia and [Soviet] Central Asia. The distribution and characteristics of rare elements found in these areas as well as some quantitative and qualitative methods of investigating the rocks and minerals in which they are found,

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Problems in Mineralogy (Cont.) SOV/5740

or with which they are associated, are discussed. Two articles present an economic investigation of the possibilities of industrial extraction and utilization of selenium, tellurium, and hafnium. No personalities are mentioned. Each article is accompanied by references.

TABLE OF CONTENTS:

GEOCHEMISTRY

Card 2/6

Problems in Mineralogy (Cont.) SOV/5740

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Problems in Mineralogy (Cont.)

Problems in Mineralogy (Cont.) SOV/5740

ECONOMICS OF RARE ELEMENTS

AVAILABLE: Library of Congress

Card 6/6

JA/[illegible]/mas
11-14-61

LYAKHOVICH, V.V.; CHERVINSKAYA, A.D.

Effect of assimilation processes on the occurrence of accessory minerals in granitoids. Izv. AN SSSR. Ser. geol. 25 no.5:67-78 My'60. (MIRA 13:10)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR, Moskva.
(Granite)

S/677/61/000/007/003/003
E193/E383

AUTHORS: Lyakhovich, V.V., and Chervinskaya, A.D.

TITLE: Accessory minerals in Tyrny-Auz granitoids and their petrogenetic significance

SOURCE: Akademiya nauk SSSR. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Trudy, no.7, 1961. Voprosy mineralogii i geokhimii redkikh elementov. 156-181

TEXT: The Tyrny-Auz deposit, one of the largest tungsten-molybdenum deposits of the scarn type, is situated in the Tyrny-Auz mobile region, characterized by the presence of numerous breaks which, to a great extent, have determined the localized concentration of various volcanic rocks, including leucocratic granitoids. One of the more important problems of the geology of Tyrny-Auz deposits is the relationship between the granitoids of leucocratic complex and the largest porphyritic granite massive in the El'dzhurtu region. Another equally important problem is posed by the relationship between

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the tungsten-molybdenum deposits in the Tyrny-Auz mobile region and the El'dzhurtu or leucocratic granitoids. Elucidation of these problems would provide an answer to the question on the origin of the tungsten-molybdenum deposits; hence the present paper in which the quantitative mineralogical and chemical analyses of various modifications of El'dzhurtu and leucocratic granitoids are presented as well as quantitative data on the content of accessory minerals in El'dzhurtu and Tyrny-Auz granitoids. The latter data are summarized in Table 9. Comparative data are also presented on SrO and Mo contents in some accessory minerals of the Tyrny-Auz and other deposits. Detailed analysis of these data led the present authors to the following conclusions.

1) It is very likely that leucocratic granitoids represent formations younger than El'dzhurtu granite.

2) A large number of common geochemical characteristics of the El'dzhurtu granite and leucocratic granitoids indicate the comagnetic character of these formations.

Accessory minerals ....

3) An increased molybdenum content in El'dzhurtu granite and a similar concentration of molybdenum in ilmenite, sphene and biotite indicate that El'dzhurtu granite is the original source of molybdenum-bearing minerals.
There are 11 tables and 27 Soviet-bloc references.

Table 9: Chart showing the similarities and differences in the composition of accessory minerals (g/t) in Tyrny-Auz granitoids

Minerals	Granite		Aplite	Leuco-cratic Granite	Tronch-jemite	Paleo-granite
	El'dzhur-tu	From contact region				
Apatite	221.0	103.7	53.0	50.7	14.0	793.0
Monazite	20.0	1.3	0.3	9.0	+	40.0
Zirconium	176.0	71.7	40.7	6.4	5.0	43.0
fluorite	15.0	2.2	0.1	7.0	+	+
granate	1.0	4126.3	14.9	90.0	1.0	+

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S/677/61/000/007/003/003
E193/E383

Accessory minerals ....
(Table 9 cont.)

Magnetite	58.0	+	1.6	0.4	2.0	+
Ilmenite	21.2	111.1	0.7	3.4	854.5	+
Pyrite	11.5	1.3	0.6	11.0	173.0	+
Molybdenite	0.7	0.4	0.1	114.0	+	+
Sphene	5.5	406.6	0.6	95.0	+	+
Arsenopyrite	1.8	2.3	+	0.5	30.0	+
Chalcopyrite	4.0	0.3	+	4.2	+	-
Ortite	99.0	135.0	15.0	73.0	3.0	-
Torite	+	1.7	+	+	+	-
Sphalerite	0.3	0.1	+	3.3	1.0	-
Vesuvianite	-	20.4	0.5	10.0	+	-
Wollastonite	-	58.8	0.1	0.5	-	-
Tourmaline	+	+	+	-	-	-
Cassiterite	0.3	+	0.1	-	-	-
Moissanite	+	+	+	+	-	-
Bismuthine	+	+	0.2	0.2	-	-
Scheelite	0.1	19.5	+	2.1	-	-
Uraninite	0.1	0.1	+	+	-	-
Tantalo-niobate	+	0.1	0.4	3.0	-	-
Xenotime	0.7	0.1	0.1	+	-	+
Galenite	+	0.1	-	0.2	-	0.6

Card 4/4

LYAKHOVICH, V.V.; NONESHNIKOVA, V.I.; CHERVINSKAYA, A.D.; ROZANOV, K.I.

Characteristics of the distribution of accessory minerals in altered granitoids. Krat. soob. IMGRE no.1:30-32 '60.

Accessory minerals in granitoids of the Ural Mountains. Ibid.:33-34 '60. (MIRA 17:3)

LYAKHOVICH, V.V.; CHERVINSKAYA, A.D.

Accessory minerals in the ancient granitoids of platforms. Min.sbor. 18 no.2:145-156 '64. (MIRA 18:5)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR, Moskva, i Gosudarstvennyy geologicheskiy komitet SSSR, Moskva.

CHERVINSKIY, K.A.; BARANOVA, Ye.I.; ZHEREBTSOVA L.P.; KIRICHENKO, G.S.

Effect of carboxylic acid additions on the processes of liquid phase oxidation. Zhur.prikl.khim. 38 no.6:1373-1380 Je '65.
(MIRA 18:10)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut imeni F.E. Dzerzhinskogo.

LYAKHOVICH, V.V.; CHERVINSKAYA, A.P.; ROZANOV, K.I.

Accessory minerals in granitoids of the Tyrny-Auz deposit.
Krat. soob. IMGRE no.1:35-37 '60. (MIRA 17:3)

CHERVINSKAYA, L. S. Jul/Aug 53

USSR/Nuclear Physics - Conversion Spectrum, RaD

"Conversion Spectrum of RaD," A. A. Bashilov, B. S. Dzhelepov and L. S. Chervinskaya, Phys Inst Leningrad State U im Zhdanov

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 428-435

Attempt to find experimentally more accurate relative intensities of conversional transition lines at 47.7 keV, to define coeff of conversion and the multipolarity of this transition. The number of conversion electrons was found to be 58 ± 3 and the transition E = 46/7 KeV was found to have a magnetic dipole. Indebted to N. M. Anton'yeva and G. A. Kazina. Rec 20 Jun 53. Thirty, mostly foreign, references appended.

272T45

CHERVINSKAYA, L. S.

USSR/Nuclear Physics - Radioactive Rel86

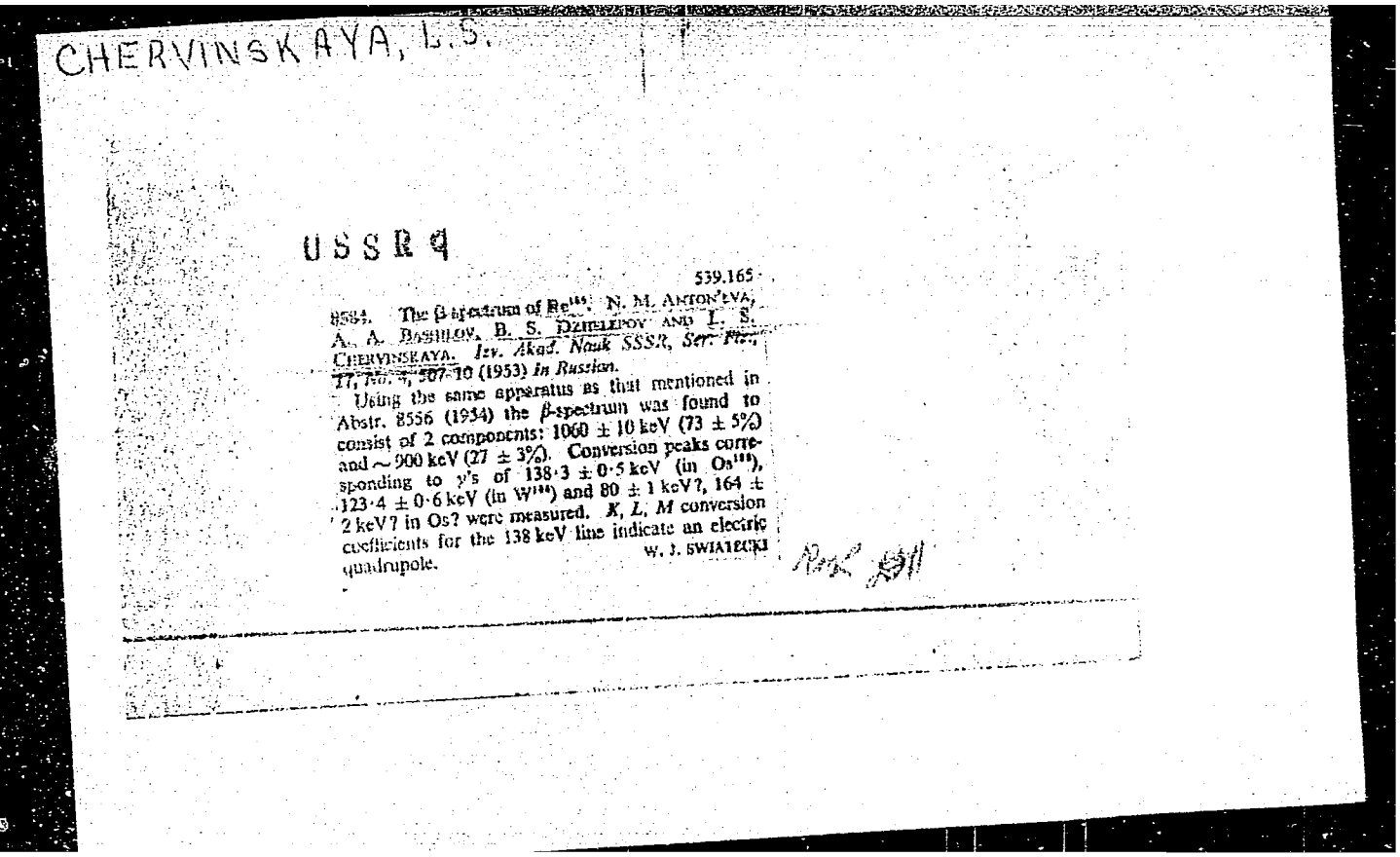
Jul/Aug 53

"Beta Spectrum of Rel86," N. M. Anton'yeva, A. A. Bashilov, B. S. Dzhelepov and L. S. Chervinskaya, Phys Inst, Leningrad State U im Zhdanov

Iz Ak Nauk, Ser Fiz, Vol 17, No 4, pp 507-510

Studied emission of Rel86 seven days after irradiation and elimination of Rel88. Rel86 transmutes into Osl86 by beta-decay and into Wl86 by electron capture, releasing in both cases gamma rays. Half life of Rel86 was found to be 93 hours. Rec 16 Jul 53.

272T50



CHERVINSKAYA, L. S.

USSR

539.165

8584. The β-spectrum of Re^{185}. N. M. ANTON'EVA, A. A. BASHILOV, B. S. DZHELEPOV AND L. S. CHERVINSKAYA. *Izv. Akad. Nauk SSSR, Ser. Fiz.*, 17, No. 4, 507-10 (1953) *in Russian.*

Using the same apparatus as that mentioned in Abstr. 8556 (1954) the β-spectrum was found to consist of 2 components: 1060 ± 10 keV (73 ± 5%) and ~ 900 keV (27 ± 3%). Conversion peaks corresponding to γ's of 138·3 ± 0·5 keV (in Os^{189}), 123·4 ± 0·6 keV (in W^{184}) and 80 ± 1 keV?, 164 ± 2 keV? in Os? were measured. *K*, *L*, *M* conversion coefficients for the 138 keV line indicate an electric quadrupole.

W. J. ŚWIĄTECKI

USSR/ Nuclear Physics - Radioactive decomposition

Card 1/1 Pub. 43 - 6/11

Authors : Bashilov, A. A.; Dzhelepov, B. S.; and Chervinskaya, L. S.

Title : Radioactive decomposition of La^{140}

Periodical : Izv. AN SSSR. ser. fiz. 18/1, 88-92, Jan-Feb 1954

Abstract : The radioactive decomposition of the La^{140} isotope was investigated by means of a ketron-spectrometer having a non-uniform magnetic field and improved focus. Electron registration was carried out on a counter the window of which was covered with a collodion layer with a surface density of ~ 0.25 mg cm-2. The semi-decomposition period for La^{140} was established and the experimental results obtained are tabulated. Eighteen references: 16-USA; 1-USSR and 1-German (1935-1951). Tables; graphs.

Institution : The A. A. Zhdanov State University, Physics Institute, Leningrad

Submitted : November 30, 1953

CHERVINSKAYA, L. S.

AUTHORS: Bashilov, A. A., Dzhelepov, B. S., Novosil'tseva, N. D., Chervinskaya, L. S.

48-22-2-10/17

TITLE: The Conversion Spectrum of La^{140} (Konversionnyy spektr La^{140})

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958, Vol. 22, Nr 2, pp. 179-190 (USSR)

ABSTRACT: The authors succeeded in separating La^{140} with a high specific activity from Ba^{140} ($T = 12,8$ days). Prikhodtseva and Khol'nov (Ref 23) performed new measurements on the β-spectrum of La^{140} under perfected conditions, which is detailed in this paper. The first chapter: Experimental conditions deals with the description of the investigation of the conversion electron spectrum of La^{140}, using a magnetic spectrometer with perfected focusation (ketron). The divergence angle of theelectron beam in the spectrometer was selected in such a way, that it corresponded to the ground conversion lines of La^{140} with respect to width. An usual Geiger-Mueller counter was used for the registration of the electrons: In

Card 1/4

the chapter: The results of investigation: It is stated, that the authors succeeded in determining 28 conversion lines corresponding to the 16 nuclear transitions. Quite as well all lines, which were discovered earlier by Cork et al. could be determined, and besides also the weak K and L lines corresponding to $h\nu$ = 730 keV. In the chapter: The determination of the multipolar order of nuclear transitions into Ce^{140}, The ratio K/L: the authors used the values from tables by L.A. Sliv and I.M. Band (Ref 19) for the coefficients of internal conversion and values by Pouz for the coefficient of internal conversion on the L_I-shell, interpolated according to G.F.Drawnitsyna (Ref 20). In this way the theoretical values for K/L at Z = 58 were obtained with respect to the first 6 multipoles. A corresponding table is given here. In the chapter dealing with the quantity α_K it is stated that the authors are familiar with the data on the relative intensities in the spectra of the conversion electrons as well as of the γ-radiation (Ref 23). Thus arises the possiblility to determine the conversion coefficients, if it were possible to combine the scales of two spectra. This could be attained if only the

multipolar order of one transition were known. In the chapter: γ-γ correlations it is stated, that although the authors did not investigate the correlation between the γ-rays of Ce^{140}, the last obtained experience, however, would enable them to set up the quantum characteristics. The correlation by Bishop and Jorba (Ref 21), Robinson and Madansky (Ref 12), Bolotin (Ref 14) and Coleman (Ref 5) are referred to. In the chapter: The quantum characteristics of the excited states of Ce^{140} the following excited states of Ce^{140} are treated: 1) (E_1 = 1597 keV) of type 2^+. 2) (E_2 = 2083 keV). Here only one transition to the first level ($h\nu$ = 486,6 keV) is known. The transition from the third state (E_3 = 2412 keV) to the first and second level of Ce^{140} ($h\nu$ = 815,3 and 328,6 keV) could be observed, but no transition to the ground level could be found. 4) The fourth state (E_4 = 2520 keV) "apparently" discharges to all lower levels: 0, 1597, 2083 and 2412 keV, producing γ-radiation with a quantum energy of 2520, 923, 436 and 108 keV. Subsequently a more exact analysis of the mentioned states is given, data on which are compiles into a table.

The Conversion Spectrum of La^{140}

48-22-2-10/17

There are 6 figures, 4 talbes, and 23 references, 6 of which are Soviet.

ASSOCIATION: Fizicheskiy institut Leningradskogo gos. unive_rsiteta im. A.A. Zhdanova (Physics Institute, Leningrad State University imeni A.A. Zhdanov)

AVAILABLE: Library of Congress

1. Lanthanum-Conversion spectra

Card 4/4

L 20244-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5001582 S/0054/64/000/00[illegible]

AUTHOR: [illegible], A. A. (Deceased); Chervinskaya, L. S.

TITLE: L-fluorescence and Auger electron yields

SOURCE: Moscow. Universitet. Vestnik. Seriya fiziki [illegible]

no. 4, 1964, 71-78

TOPIC TAGS: fluorescence yield, Auger electron, Auger electron yield, bismuth, Coster Kronig yield

ABSTRACT: The L-fluorescence, Auger electron, and Coster-Kronig yields of bismuth were calculated from the disintegration data obtained by using a magnetic spectrometer. The data obtained for the relative intensities of the 46.5 kev γ-ray in Bi, the relative number of Auger electrons produced at three L-sublevels, the total number of L-ionizations, L-fluorescent quanta, and [illegible] trons per disintegration. The numerical results for the fluorescence yields, the Auger-yields, and the Coster-Kronig yields respectively are as follows:

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L 20244-65
ACCESSION NR: AP5001582

$\omega_1=0,14$; $\omega_2=0,40$; $\omega_3=0,49$,

$a_1=0,10$; $a_2=0,60$; $a_3=0,51$

$f_{12}=0,17$; $f_{13}=0,59$; $f_{23}=0$.

Orig. art. has: 3 tables, 1 figure, and 3 formulas.

ASSOCIATION: none

SUBMITTED: 17Jul62 ENCL: 00 SUB CODE:

NO REF SOV: 004 OTHER: 012 ATD PRESS:

Card 2/2

BASHILOV, A.A. [deceased]; CHERVINSKAYA, L.S.

Determination of the fluorescence and Auger-electron yields for L-sublevels of bismuth. Vest. LGU 19 no.22:71-78 '64
(MIRA 18:1)

L 41709-65 EWT(m) Peb DIAAP
ACCESSION NR: AR5008410 UR/0058/65/000/001/V012/V012

SOURCE: Ref. zh. Fizika, Abs. 1V87

AUTHORS: Bashilov, A. A.; Chervinskaya, L. S.

TITLE: Beta spectra of RaD

CITED SOURCE: Zap. Leningr. gorn. in-ta, v. 44, no. 3, 1965, 119-125

TOPIC TAGS: radium D, Beta spectrum, internal conversion electron, radioactive decay, Beta spectrometry, Beta decay

TRANSLATION: The β-spectrum, the internal conversion electrons, and the Auger electrons produced upon decay of RaD were investigated with a [illegible] of the ketron type. The input film of the Geiger-Muller counter was [illegible] with 1.5 mg/cm², and an accelerating voltage up to 1.. kV was [illegible] tector. A very thin source was deposited on an aluminum substrate [illegible]. It was established that the β-spectrum of RaD consists of two components with end-point energies 14.8 ± 0.7 and 61.3 ± 0.7 keV, and with intensities 55 ± [illegible]

Card 1/2

L 41709-65

ACCESSION NR: AR5008410

41 ± 5 %. The values of log ft are respectively 5.4 and 7.4. It was established that the total intensity of the γ-transition in RaE, with energy 46.5 keV, is equal to 62 ± 5 %, which agrees with the β-spectrum measurement results. It is known that the ground state of RaE has characteristics 1⁻. The data obtained confirm that the level with 46.5 keV has characteristics 0⁻, and that these are forbidden β-decays from the ground state of RaD with characteristics [illegible] ground state of RaE and to this level. Ye. Grigor'yev.

SUB CODE: NP ENCL: 00

Card 2/2

1. ROZANOV, L. N. : CHERVINSKAYA, M. Y. : KURSAKOVA, Z. N. : MAZYUK, V. V.

2. USSR (600)

4. Buguruslan District - Geology

7. Reinterpretation and dissemination of the electric geophysical exploration materials of 1936 - 1943 and their coordination with the data of the geological prospecting activities in the Buguruslan petroleum district. /Abstract/ Izv. Glav. upr. geol. fon. no. 3 : 1947.

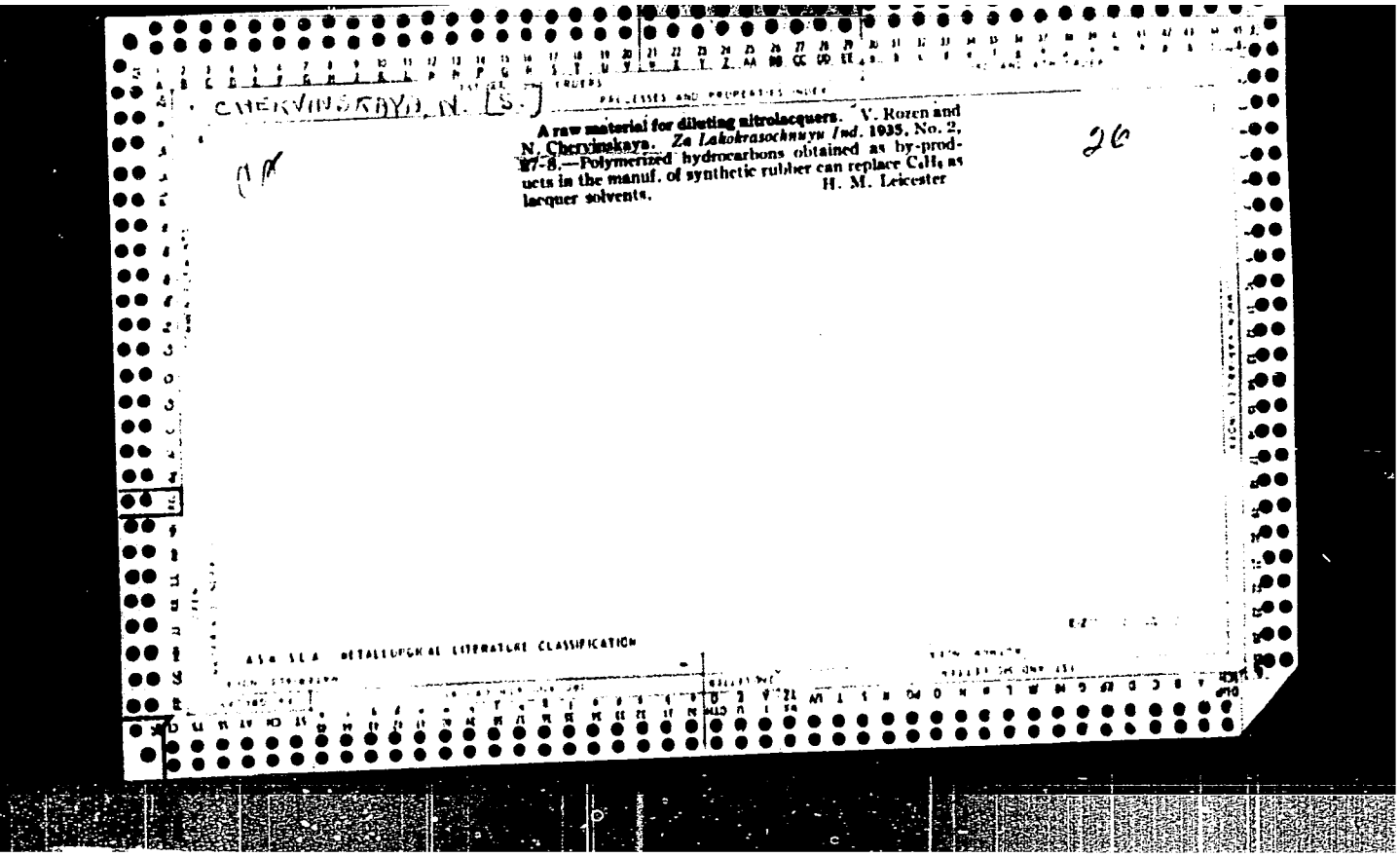
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

CHERVINSKAYA, M. V.

GROSSGEYM, Vladimir Aleksandrovich; YEREMENKO, Nikolay Andreyevich; ZAYTSEV, Nikolay Sergeyevich; ZUBOV, Ivan Petrovich; KOSYGIN, Yuriy Aleksandrovich; PUSTIL'NIKOV, Mark Romanovich; ROSTOVTSEV, Nikolay Nikitich; SLAVIN, Vladimir Il'ich; KHAIN, Viktor Yefimovich; KHALTURIN, Dmitriy Sergeyevich; CHERVINSKAYA, Marina Vladimirovna; SHCHERIK, Yevgeniya Aleksandrovna; EZDRIN, Mikhail Borisovich; KOSYGIN, Yu.A., red.; SHOROKHOVA, L.I., ved.red.; MUKHINA, E.A., tekhn.red.

[Tectonics of petroleum provinces]. Tektonika neftenosnykh oblastei. Moskva, Gos.nauchno-tekhn. izd-vo neft.i gorno-toplivnoi literatury. Vol.2 [Regional tectonics of petroleum provinces of the U.S.S.R.] Regional'naia tektonika neftenosnykh oblastei SSSR. 1958. 613 p. (MIRA 11:12)

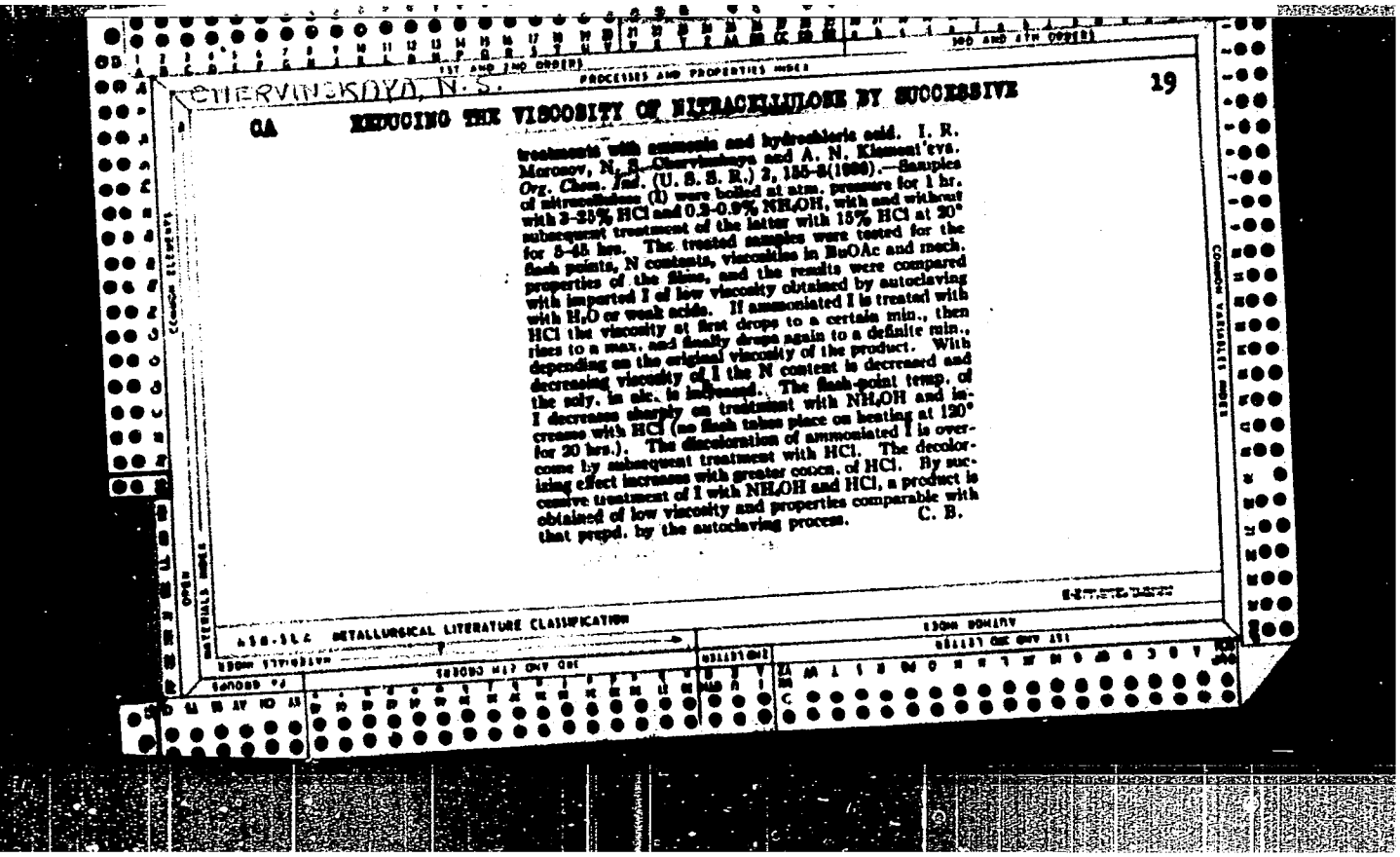
1. Chlen-korrespondent AN SSSR (for Kosygin)
(Petroleum geology)



CHERVINSKAYA, N. [S.]

A raw material for diluting nitrolacquers. V. Rozen and N. Chervinskaya. *Za Lakokrasochnuyu Ind.* 1935, No. 2, 27-8.—Polymerized hydrocarbons obtained as by-products in the manuf. of synthetic rubber can replace CaH_6 as lacquer solvents.
H. M. Leicester

26

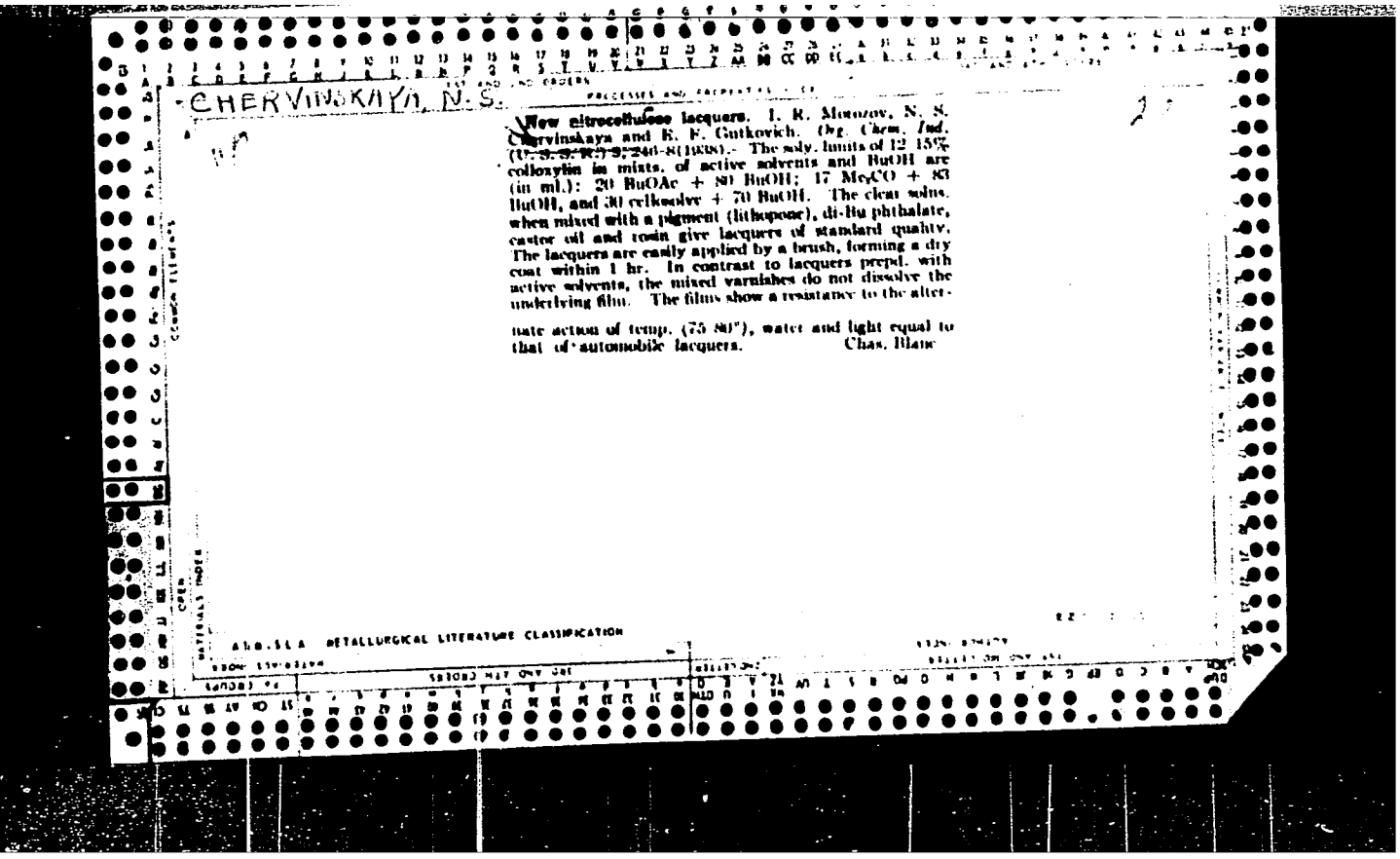


CHERVINSKAYA, N. S.

19

CA REDUCING THE VISCOSITY OF NITROCELLULOSE BY SUCCESSIVE

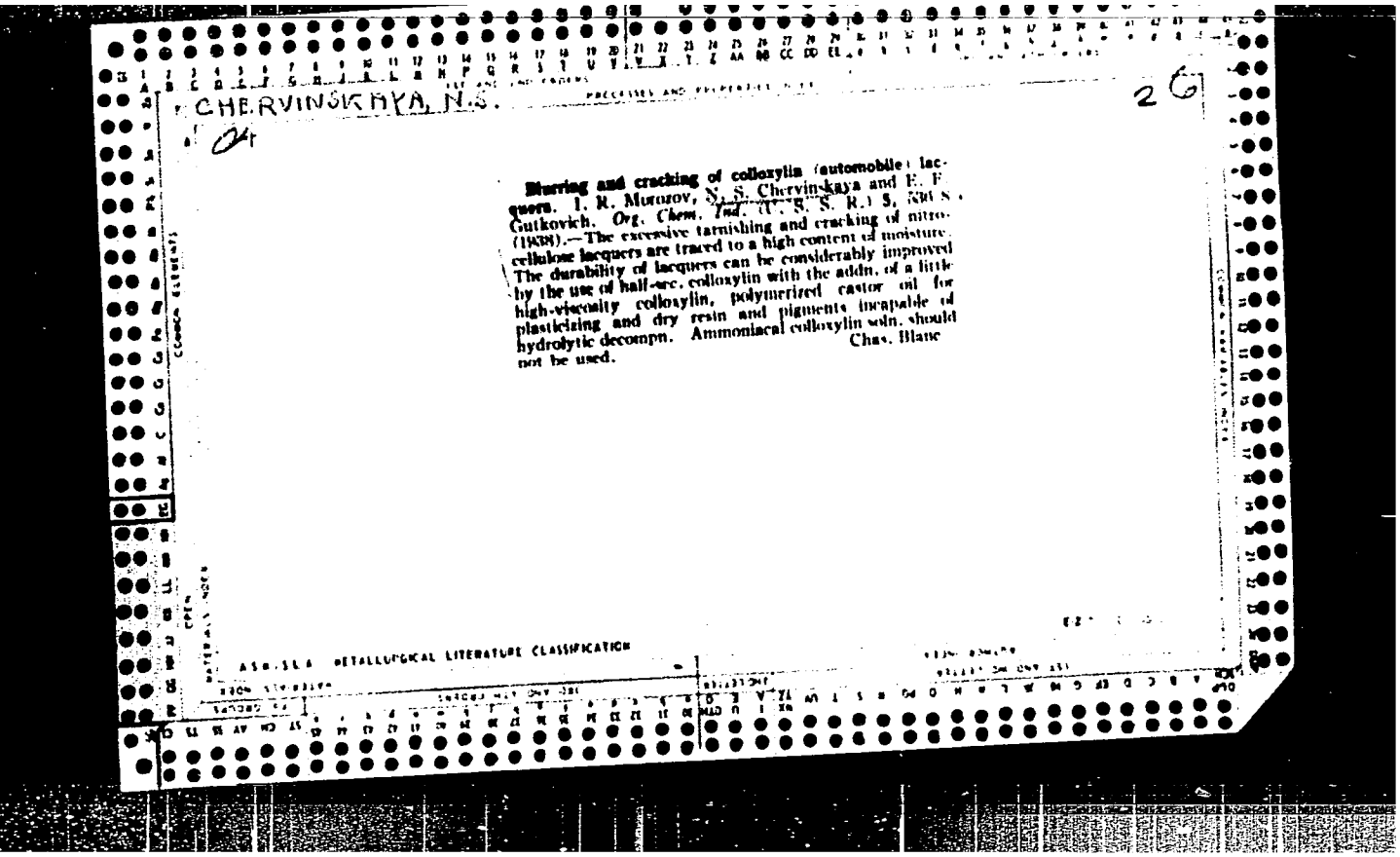
treatments with ammonia and hydrochloric acid. I. R. Marosov, N. S. Chervinskaya and A. N. Klement'eva. *Org. Chem. Ind.* (U. S. S. R.) 2, 185-8(1936).—Samples of nitrocellulose (I) were boiled at atm. pressure for 1 hr. with 3-25% HCl and 0.3-0.9% NH_4OH, with and without subsequent treatment of the latter with 15% HCl at 20° for 5-45 hrs. The treated samples were tested for the flash points, N contents, viscosities in BuOAc and mech. properties of the films, and the results were compared with imported I of low viscosity obtained by autoclaving with H_2O or weak acids. If ammoniated I is treated with HCl the viscosity at first drops to a certain min., then rises to a max. and finally drops again to a definite min., depending on the original viscosity of the product. With decreasing viscosity of I the N content is decreased and the soly. in alc. is increased. The flash-point temp. of I decreases sharply on treatment with NH_4OH and increases with HCl (no flash takes place on heating at 120° for 20 hrs.). The discoloration of ammoniated I is overcome by subsequent treatment with HCl. The decolorizing effect increases with greater concn. of HCl. By successive treatment of I with NH_4OH and HCl, a product is obtained of low viscosity and properties comparable with that prepd. by the autoclaving process. C. B.



CHERVINSKAYA, N. S.

New nitrocellulose lacquers. I. R. Mironov, N. S. Chervinskaya and K. F. Gutkovich. *Org. Chem. Ind.* (U.S.S.R.) 2:240-8(1938).- The solv. limits of 12.15% colloxylin in mixts. of active solvents and BuOH are (in ml.): 20 BuOAc + 80 BuOH; 17 Me_2CO + 83 BuOH, and 30 cellosolve + 70 BuOH. The clear solns. when mixed with a pigment (lithopone), di-Bu phthalate, castor oil and rosin give lacquers of standard quality. The lacquers are easily applied by a brush, forming a dry coat within 1 hr. In contrast to lacquers prepd. with active solvents, the mixed varnishes do not dissolve the underlying film. The films show a resistance to the alternate action of temp. (75-80°), water and light equal to that of automobile lacquers. Chas. Blair

A.I.M.S.L.A. METALLURGICAL LITERATURE CLASSIFICATION



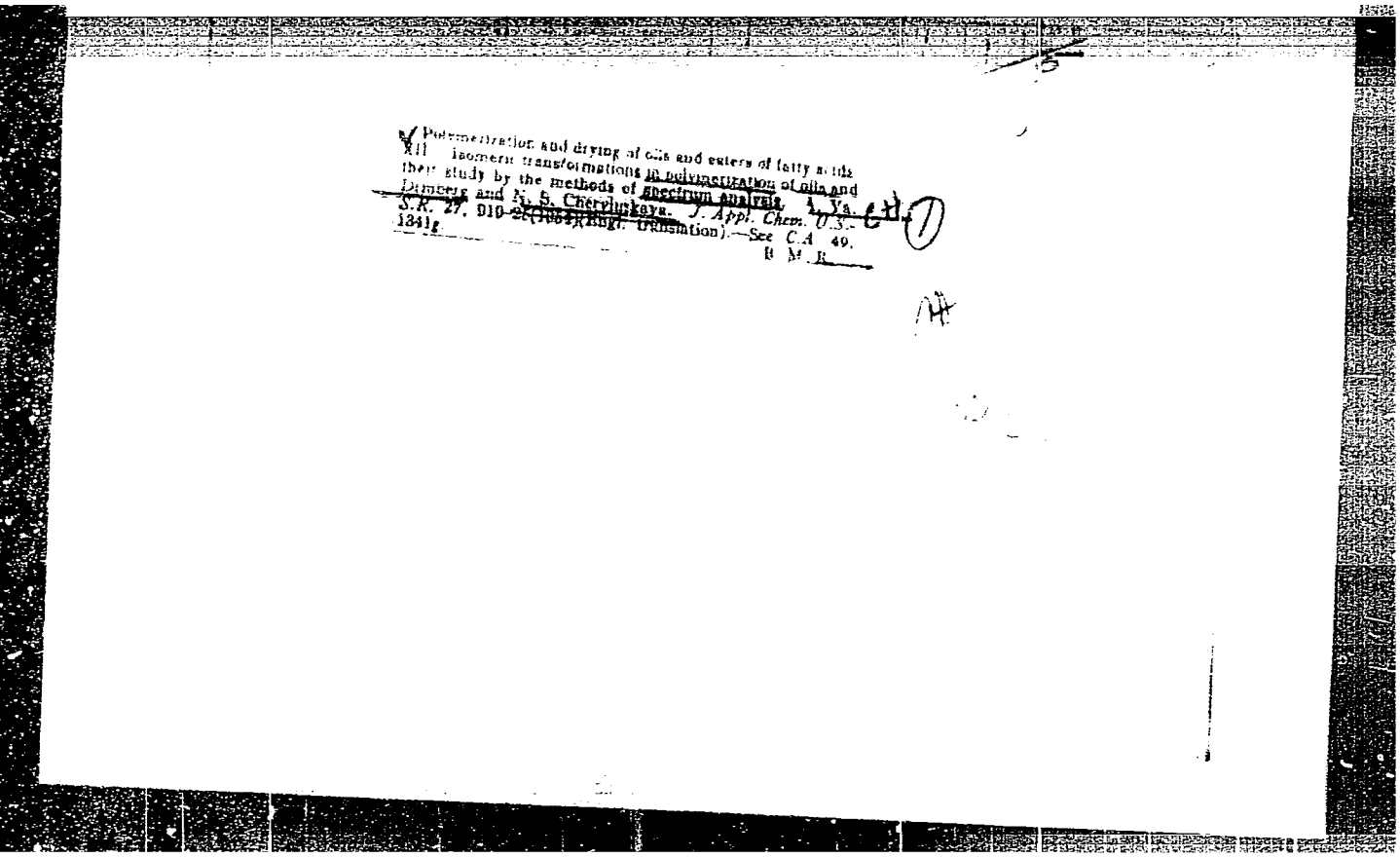
CHERVINSKAYA, N.S.

26

Blurring and cracking of **collodion** (automobile) lacquers. I. R. Morozov, N. S. Chervinskaya and E. F. Gutkovich. *Org. Chem. Ind.* (U. S. S. R.) 5, 580 S. (1938).—The excessive tarnishing and cracking of nitrocellulose lacquers are traced to a high content of moisture. The durability of lacquers can be considerably improved by the use of half-sec. collodion with the addn. of a little high-viscosity collodion, polymerized castor oil for plasticizing and dry resin and pigments incapable of hydrolytic decompn. Ammoniacal collodion soln. should not be used.

Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Polymerization and drying of oils and esters of fatty acids
XII Isomeric transformations in polymerization of oils and
their study by the methods of spectrum analysis. I. Ya.
Denisov and N. S. Cherylinkaya. *J. Appl. Chem. U.S.S.R.* 27, 910-21(1954)(Engl. translation).—See *C.A.* 49,
1341g.

B. M. R.

Polymerization and drying of oils and esters of fatty acids. XII. Isomeric transformations in polymerization of oils and their study by the methods of spectrum analysis. A. Ya. Drinberg and N. S. Chervinskaya (Lensovet Tekh. Inst., Leningrad).—*Zhur. Prikhl. Khim.* 27, 983–90 (1954); cf. *C.A.* 46, 3225b.—Expts. are described in which specimens of tung oil, linseed oil, and cottonseed oil were isomerized by contact with bentonite and the silicate waste from the production of $Al_2(SO_4)_3$ at 250° for a total of about 10 hrs. under CO_2. The products were examd. by infrared analysis of CCl_4 solns. The spectra of the original and the treated products are shown. The results indicate that the isomerization appears to be caused by migration of H so that the isolated double bonds are converted to conjugated systems. The process can be controlled by following the infrared absorption in the region of 10 μ, with quant. control by Br or I no.

G. M. Kosolapoff

USSR

Polymerization and drying of oils and esters of fatty acids. XIII. Isomeric transformation in polymerization of oils. A. Ya. Drinberg and N. S. Chervinskaya (Lensovet Technol. Inst., Leningrad). Zhur. Priklad. Khim. 27, 1257-12 (1954); cf. C.A. 49, 1311g.—Tung oil (I), linseed oil (II), cottonseed oil (III), and the pentaerythritol esters of the fatty acids of these oils were isomerized with a catalyst and thermopolymerized to give prepns. with a low viscosity, 180-200 sec. at 20° and prepns. with a high viscosity, 600-1070 sec. (Ostwald viscosimeter). The differences between the Br and the I nos. together with the diene no. and the spectrum analyses indicate that the primary factor in polymerization is heat and not catalysis. The physicomech. and the chem. properties of isomerized and thermopolymerized are about the same. Varnishes prepd. from polymerized I dry fastest with the esters of II as the next best. Whereas the esters of III dry satisfactorily all other prepns. of III remain tacky after a month. All films but those of III exhibit a high hardness; the films of all prepns. exhibited max. flexural and impact strengths. I. Bencowitz

ANDREYEV, N.N.; CHERVINSKAYA, N.S.

Coagulation of colloids. Trudy LTIKHP 15:92-96 '58.
(MIRA 13:4)

1. Predstavlena Kafedroy organicheskoy, kolloidnoy i fizicheskoy khimii Leningradskogo tekhnologicheskogo instituta kholodil'noy promyshlennosti.
(Colloids) (Coagulation)

CHERVINSKAYA, N. S., KNYAGINICHEV, M. I., LYAPUNOVA, G. N., and CHERNYAK, B. I. (USSR)

"The Change in the Properties of Starch under the Influence of Humidity and Temperature."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

Chervinskaya, O.V.

USSR /Chemical Technology. Chemical Products and Their Application
Water treatment. Sewage water. H-5

Abs Jour: Referat Zhur - Khimiya, No 1, 1958, 1711

Author : Meleshko V.P., Chervinskaya O.V., Romanov M.N.

Title : The Use of Anionite Resins EDE-10 and AN-2F for Thorough Desalination of Water.

Orig Pub: Teploenergetika, 1956, No 12, 20-23

Abstract: An experimental comparison has been made, under laboratory conditions, of the anionites TM, AN-2F, PE-9 and EDE-10 to determine their suitability for producing desalinated water required for the technological needs of the radio plant. The experiments revealed the superiority of EDE-10 anionite. On 2-stage, separate H-OH ionation (with Espatit KU-1 as cathionite and EDE-10

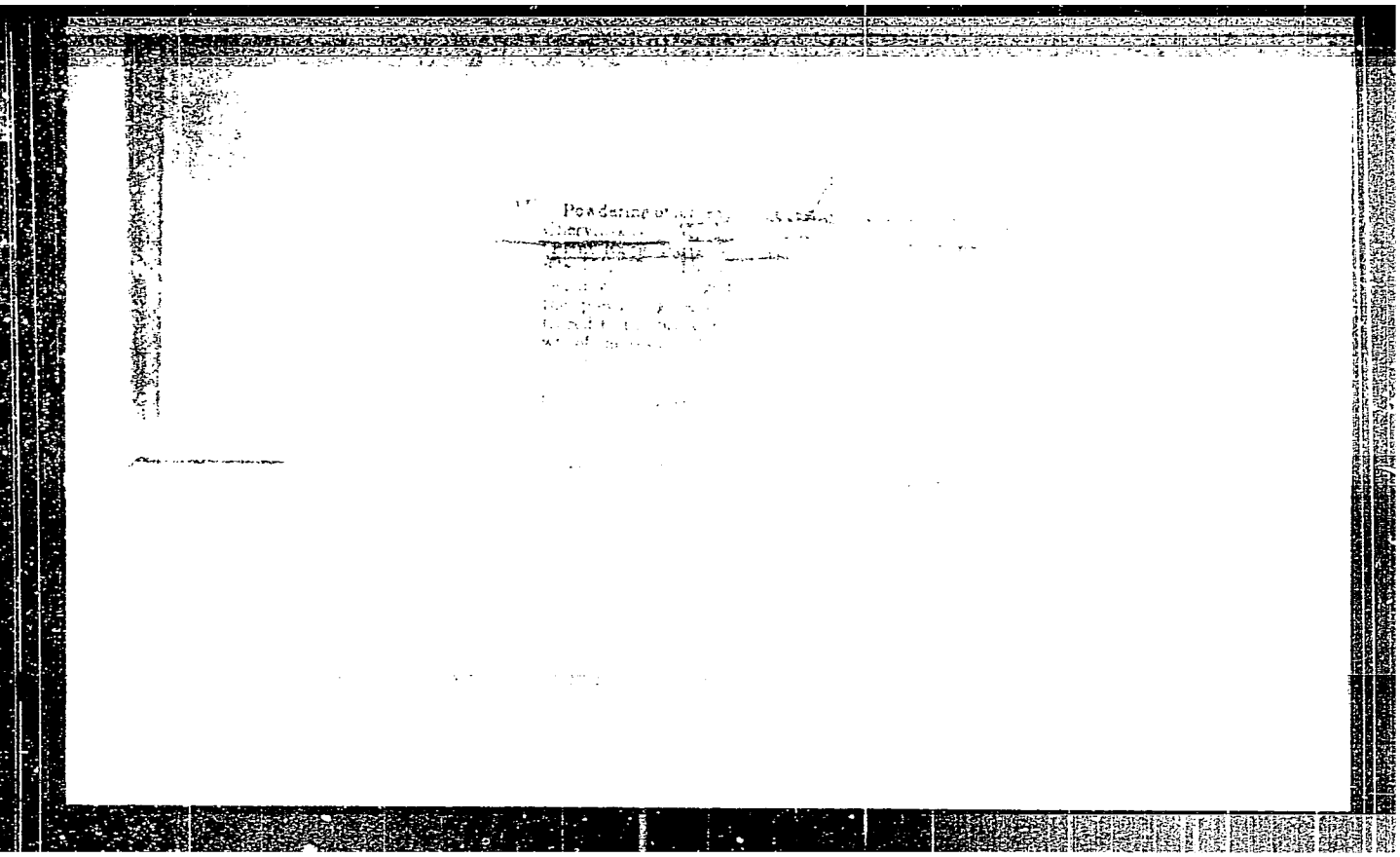
Card 1/2

USSR /Chemical Technology. Chemical Products and Their Application H-5
Water treatment. Sewage water.

Abs Jour: Referat Zhur - Khimiya, No 1, 1958, 1711

as anionite), a water was obtained the specific resistance of which was of the order of $5 \cdot 10^6$ - $6 \cdot 10^6$ ohms. Expenditures of alkali and wash water in conjunction with the use of anionites AN-2F and EDE-10 have been determined.

Card 2/2



MELESHKO, V.P.; ANPILOVA, N.S.; ROMANOV, M.N.; CHERVINSKAYA, O.V.

Operation of filters with a mixed-bed ion exchangers. Zhur.prikl. khim. 35 no.1:60-66 Ja '62. (MIRA 15:1)
(Filters and filtration) (Ion exchange resins)

S/081/62/000/012/033/063
B166/B101

AUTHORS: Meleshko, V. P., Ismaylova, D. R., Chervinskaya, O. V., Povalyayeva, L. P., Zolotareva, R. I.

TITLE: Complete desalting of water on ion-exchange-resin installations of medium capacity

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1962, 359, abstract 12I310 (Sb. "Issled. v obl. prom. primeneniya sorbentov". M., AN SSSR, 1961, 223-227)

TEXT: On one of the installations for the deep desalting of water the ЭАЭ-10П (EDE-10P) anion-exchange resin was desilicifying the water poorly due to the active groups of the anion-exchange resin being blocked with HCO_3^- ions. It was recommended that the desalting installation be provided with a second degasifier to remove CO_2 residues and with two desilicifying filters in which the loaded EDE-10P anion-exchange resin is regenerated with 0.24 N NaOH and periodically washed through with 0.5 N HCl to remove the HCO_3^-. The desilicifying efficiency and the silicon

Card 1/2

S/081/62/000/012/033/063
B166/B101

Complete desalting of water ...

capacity of the anion-exchange resin were greatly increased when this was done. [Abstracter's note: Complete translation.]

Card 2/2

MELESHKO, V.P.; IZMAYLOVA, D.R.; CHERVINSKAYA, O.V.; ANPILOVA, N.S.

Particular features of the regeneration of various type anion-exchange resins. Zhur.prikl.khim. 36 no.1:130-134 Ja '63. (MIRA 16:5)
(Ion exchange resins)

KHAVKIN, L.M., inzh.; CHERVINSKAYA, R.L., inzh.; KOZ'MINA, T.G., inzh.; KOZLOVA, N.A., inzh.

Resistance of sand-lime concrete in aggressive solutions.
Stroi. mat. 10 no.11:24-25 N '64.
(MIRA 18:1)

VLODAVETS, M.L.; GOL'BERT, K.A.; CHERVINSKAYA, Ye.Ya.; NAZAROVA, N.N.

Determination of the content of carbonyl compounds and allyl alcohol formed in the contract reduction of acrolein by ethyl and isopropyl alcohols. Trudy Kom.anal.khim. 13:209-216 '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.
(Carbonyl compounds) (Allyl alcohol) (Acrolein)

CHERVINSKAYA, V.V.

Requirements of mechanical drawings in connection with the use of numerically controlled machine tools. Standartizatsiia 29 no.8:9-13 '65. (MIRA 18:10)

Chervinskiy, A. A.

MASTRYUKOV, V.A., kand.med.nauk (Moskva, G-48, Kooperativnaya ul. d.3, korp. 4, kv.14); CHERVINSKIY, A.A.

Respiration in patients with suppurative processes and lung tumors [with summary in English]. Vest.khir. 79 no.9:33-39 S '57. (MIRA 10:11)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. A.V.Gulyayev) pediatricheskogo fakul'teta 2-go Moskovskogo meditsinskogo instituta im. I.V.Stalina.

(LUNG NEOPLASMS
resp.funct. test.)
(LUNG DISEASES
resp.funct.tests in suppurative processes)
(RESPIRATION, function tests
in lung cancer & suppurative lung dis.)

CHERVINSKIY, A.A., Cand Med Sci -- (diss) "Changes in external respiration and pulmonary blood circulation in surgical diseases of the lungs." Mos, 1958, 16 pp (Second Mos State Med Inst im N.I. Pirogov) 200 copies (KL, 27-58, 118)

CHERVINSKIY, A.A.

Roentgen-bronchospirometric parallels in the study of external respiration in chronic purulent processes and lung tumors. Khirurgiia 34 no.8:52-59 Ag '58 (MIRA 11:9)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. A.V. Gulyayev) pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

(LUNG DISEASES,
chronic purulent, x-ray bronchospirometric parallels in external resp. (Rus))
(LUNG NEOPLASMS
x-ray bronchospirometric parallels in external resp. (Rus))

CHERVINSKIY, A.A., kand.med.nauk; SELIVANOVA, Z.F.; FRADKIN, S.Z.

Significance of azygography in solving the problem of the operability of cancer of the lungs and esophagus. Vest.khir. no.6:30-36 '62. (MIRA 15:11)

1. Iz kafedry khirurgii (zav. - prof. B.I. Fuks) Novokuznetskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey im. S.M. Kirova (Kemerovskaya oblast') i rentgenologicheskogo otdeleniya 1-y gorodskoy klinicheskoy bol'nitsy (gl. vrach - S.F. Kirin).
(LUNGS—CANCER) (ESOPHAGUS—CANCER) (ANGIOGRAPHY)

CHERVINSKIY, A.A., kand.med.nauk; RASSOKHIN, V.M.

Fibrinolytic hemorrhages. Sov.med. 26 no.7:54-58 Jl '62.
(MIRA 15:11)

1. Iz kafedry khirurgii (zav. - prof. B.I.Fuks) i kafedry terapii (zav. - prof. G.M.Shershevskiy) Novokuznetskogo instituta usovershenstvovaniya vrachey (rektor - dotsent G.L.Starkov).
(FIBRINOLYSIS) (HEMORRHAGE)

CHERVINSKIY, A.A. (Novokuznetsk. ul. Kirova, d.24, kv.16)

Tracheo-esophageal fistula as a complication due to a foreign body in the posterior mediastinum. Grudn. khir. 5 no.3:100-102 My-Je'63 (MIRA 17:1)

CHERVINSKIY, A.A., kand. med. nauk

Mediastinotomy in suppurative posterior mediastinitis. Khirurgiia 39 no.7:112-115 Jl '63 (MIRA 16:12)

1. Iz kafedry khirurgii (zav. - prof. B.I.Fuks) Novokuznetskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey.

CHERVINSKIY, A.A., kand. med. nauk (Novokuznetsk, Kemerovskoy oblasti, ul. Kirova, d.24, kv. 16); SEVAST'YANOVA, A.D.

Splenoportography and hepatography as a method of determining the operability of tumors in the epigastric region. Vest. ir. 90 no.5:130-136 My'63 (MiRA 17:5)

1. Iz khirurgicheskoy kliniki (zav. - prof. B.I. Fuks) Novokuznetskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey i otdeleniya grudnoy khirurgii (zav. - A.A. Chervinskiy) klinicheskoy bol'nitsy No.1 (glavnyy vrach - V.V. Bessonenko), Novokuznetsk.

CHERVINSKIY, A.A., kand. med. nauk

Surgical complications in staphylococcal pneumonia in children. Sov. med. 27 no.2:72-75 F '64. (MIRA 17:10)

1. Kafedra khirurgii (zav. - prof. B.I. Fuks) Novokuznetskogo instituta usovershenstvovaniya vrachey.

CHERVINSKIY, A.A., kand. med. nauk; POLIKARPOV, M.Ya.; ABRAMOV, V.K.

Phlebographic methods of determining the operability of pulmonary cancer. Khirurgiia 41 no.4:13-17 Ap '65.

(MIRA 18:5)

1. Kafedra khirurgii (zav. - prof. B.I. Fuks) Novokuznetskogo instituta usovershenstvovaniya vrachey.

CHERVINSKIY, I.

At the Scientific and Technologic Council of the Ministry of Agriculture of the U.S.S.R. Zashch. rast. ot vred. i bol. 6 no.7:58 Jl '61. (MIRA 16:5)

(Plant quarantine)

BEL'DEMAN, N., nauchnyy sotrudnik; CHERVINSKIY, G., inzh.

Index of the degree of over-all mechanization of cargo handling operations in harbors. Mor. flot 22 no.8:10 Ag '62. (MIRA 15:7)

1. Chernomorskiy institut po proyektirovaniyu morskikh portov i sudoremontnykh predpriyatiy (for Bel'deman). 2. Chernomorskoye parokhodstvo (for Cherbinskiy).
(Cargo handling)
(Harbors—Equipment and supplies)

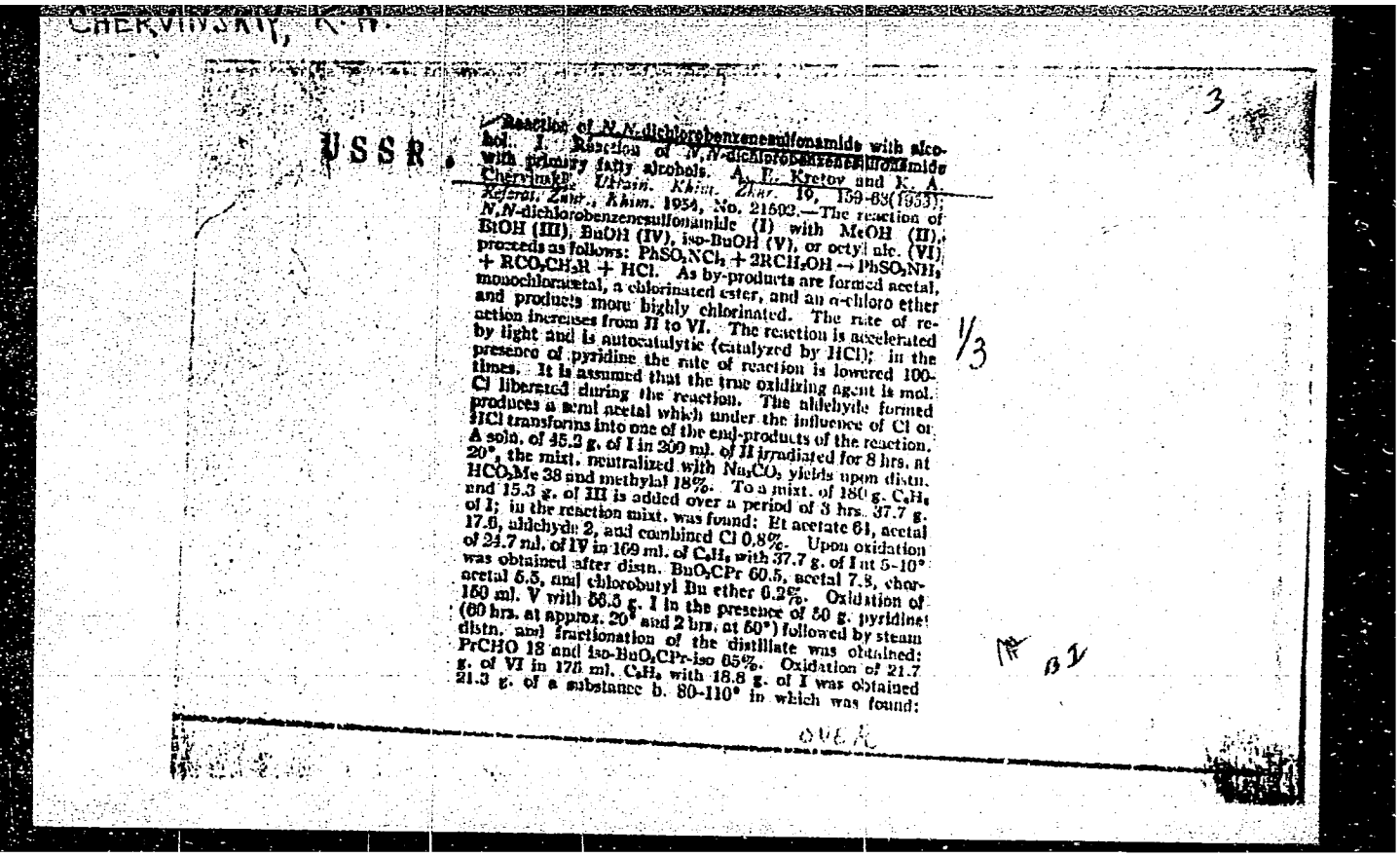
CHERVINSKIY, I. A.

CHERVINSKII, I. A.

Age characteristics in the course of malarial infection in different age groups. Pediatriia, Moskva No. 4, July-Aug. 50. p. 3-8

1. Of the Clinical Department of the State Scientific-Research Institute for Malaria and Medical Parasitology in Rostov-on-the-Don (Director--Candidate Medical Sciences S. N. Pokrovskiy.)

CLML 19, 5, Nov., 1950



CHERNYAK, K. P.

USSR

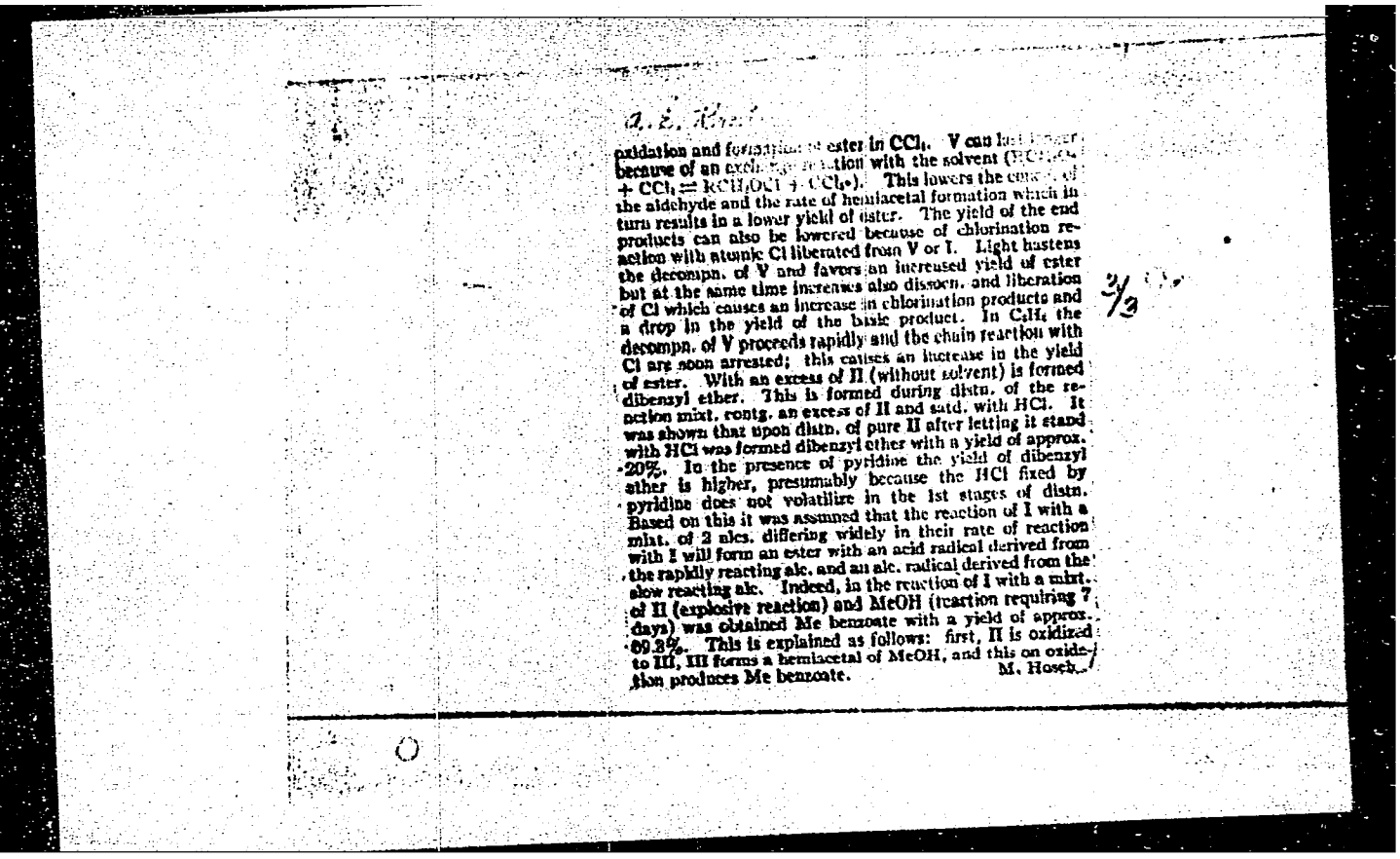
Reaction of N,N-dichlorobenzenesulfonamide with alcohol. I. Reaction of N,N-dichlorobenzenesulfonamide with primary fatty alcohols. A. E. Kretov and K. A. Chernyak. *Ukrain. Khim. Zhur.* 19, 159-63(1953); *Referat. Zhur., Khim.* 1954, No. 21602.—The reaction of N,N-dichlorobenzenesulfonamide (I) with MeOH (II), EtOH (III), BuOH (IV), iso-BuOH (V), or octyl alc. (VI) proceeds as follows: $PhSO_2NCl_2 + 2RCH_2OH \rightarrow PhSO_2NH_2 + RCO_2CH_2R + HCl$. As by-products are formed acetal, monochloroacetal, a chlorinated ester, and an α-chloro ether and products more highly chlorinated. The rate of reaction increases from II to VI. The reaction is accelerated by light and is autocatalytic (catalyzed by HCl); in the presence of pyridine the rate of reaction is lowered 100-times. It is assumed that the true oxidizing agent is mol. Cl liberated during the reaction. The aldehyde formed produces a semi acetal which under the influence of Cl or HCl transforms into one of the end-products of the reaction. A soln. of 45.2 g. of I in 200 ml. of II irradiated for 8 hrs. at 20°, the mixt. neutralized with Na_2CO_3, yields upon distn. HCO_2Me 38 and methylal 18%. To a mixt. of 180 g. C_6H_6 and 15.3 g. of III is added over a period of 3 hrs. 37.7 g. of I; in the reaction mixt. was found: Et acetate 61, acetal 17.6, aldehyde 2, and combined Cl 0.8%. Upon oxidation of 24.7 ml. of IV in 169 ml. of C_6H_6 with 37.7 g. of I at 5-10° was obtained after distn. BuO_2CPr 60.5, acetal 7.8, chloroacetal 5.5, and chlorobutyl Bu ether 0.2%. Oxidation of 150 ml. V with 56.5 g. I in the presence of 50 g. pyridine (60 hrs. at approx. 20° and 2 hrs. at 50°) followed by steam distn. and fractionation of the distillate was obtained: PrCHO 18 and iso-BuO_2CPr-iso 65%. Oxidation of 21.7 g. of VI in 176 ml. C_6H_6 with 18.8 g. of I was obtained 21.3 g. of a substance b. 80-110° in which was found:

3

1/3

OVER

octyl caprylate 18.1 and combined Cl 2.8%. II. Reaction of *N,N'*-dichlorobenzenesulfonamide with benzyl alcohol. K. A. Chersinskii and A. E. Kretov. *Ukrain. Khim. Zhur.* 19, 401–4; *Referat. Zhur., Khim.* 1954, No. 21523.—*N,N'*-Dichlorobenzenesulfonamide (I) reacts violently with $PhCH_2OH$ (II). The reaction can be carried out only with small concns. of I and intense cooling. The reaction products are BzH (III) and benzyl benzoate (IV) in approx. equal yields. In C_6H_6 soln. light increases the total yield and the relative yield of IV. In CCl_4 the total yield is lower than in C_6H_6 and the yield of III somewhat higher. Light lowers the total yield at the expense of III while the yield of IV increases. It is assumed that in the decompn. of alkyl hypochlorites (V), a radical chain reaction, the 1st stage is dissocn. $RCH_2OCl \rightleftarrows RCH_2O\cdot + Cl\cdot$ which occurs under the influence of light, increase of temp., or by interaction with alc. mols. In the end forms an aldehyde and HCl [$RCH_2OCl \rightarrow RCHO + HCl$ (cf. preceding abstr.)]. Aldehyde forms with alc. a semi acetal which is oxidized to an ester and HCl catalyzes the reaction of I with alc. The rate of V decompn. dets. the rate of alc.



oxidation and formation of ester in CCl_4. V can be lower because of an exchange reaction with the solvent ($RCH_2OCl + CCl_4 \rightleftharpoons RCH_2OCl + CCl_3\cdot$). This lowers the concn. of the aldehyde and the rate of hemiacetal formation which in turn results in a lower yield of ester. The yield of the end products can also be lowered because of chlorination reaction with atomic Cl liberated from V or I. Light hastens the decompn. of V and favors an increased yield of ester but at the same time increases also dissocn. and liberation of Cl which causes an increase in chlorination products and a drop in the yield of the basic product. In C_6H_6 the decompn. of V proceeds rapidly and the chain reaction with Cl are soon arrested; this causes an increase in the yield of ester. With an excess of II (without solvent) is formed dibenzyl ether. This is formed during distn. of the reaction mixt. contg. an excess of II and satd. with HCl. It was shown that upon distn. of pure II after letting it stand with HCl was formed dibenzyl ether with a yield of approx. 20%. In the presence of pyridine the yield of dibenzyl ether is higher, presumably because the HCl fixed by pyridine does not volatilize in the 1st stages of distn. Based on this it was assumed that the reaction of I with a mixt. of 2 alcs. differing widely in their rate of reaction with I will form an ester with an acid radical derived from the rapidly reacting alc. and an alc. radical derived from the slow reacting alc. Indeed, in the reaction of I with a mixt. of II (explosive reaction) and MeOH (reaction requiring 7 days) was obtained Me benzoate with a yield of approx. 60.2%. This is explained as follows: first, II is oxidized to III, III forms a hemiacetal of MeOH, and this on oxidation produces Me benzoate.

M. Hoseh...

CHERVINSKIY, K.A.; KRETOV, A.Ye.

Interaction of N, N-dichlorobenzenesulfamide with alcohols. Report no. 2. Reaction of N, N-dichlorobenzenesulfamide with benzyl alcohol. Ukr.khim.zhur. 19 no.4:401-404 '53. (MLRA 8:2)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Sulfamide)(Benzyl alcohol)

S/064/61/000/001/005/011
B110/B215

AUTHORS: Chervinskiy, K. A., Sukhopar, P. A., Zakharov, I. N.

TITLE: Separation of hydrogen chloride from dichloroethane in an adiabatic reaction vessel

PERIODICAL: Khimicheskaya promyshlennost', no.1, 1961, 21-23

TEXT: The large amounts of ethylene obtained from coke oven gas lead to the development of an efficient method of producing vinylchloride from ethylene. The production of vinylchloride from dichloroethane by alcoholic alkali has several drawbacks, among them high consumption of alkali (resinification, catalyst poisoning). The authors attempted to eliminate these drawbacks. Water vapor with slight additions of carbonic acid was used as diluting agent to stop side reactions. The corrosion caused thereby required the use of an adiabatic apparatus with acidproof lining. The highly overheated water vapor was used for diluting and heat transfer. A quartz tube heated in a pipe heater, served as reaction vessel. Almost adiabatic conditions were obtained by large quantities of water vapor. Coarsely porous silica

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gel proved to be an ideal catalyst. Fine-pored silica gel, aluminum oxide, and aluminum silicates proved less suitable. Depositions of resin and carbon black were reduced in the presence of water vapor. The authors soaked silica gel with solutions of chromium, bismuth, nickel, and magnesium chlorides and fluorides, etc, and found that the formation of resin was excluded by soaking silica gel with 2-3% of aqueous Na_2SiF_6 solution with a 1% addition of KF in the presence of water vapor at 400°C. KF accelerates the vaporization of carbon deposits on the catalyst under the action of water vapor. If no water vapor or KF are present, the deposition of carbon black starts again. The optimum reaction temperature was 380 to 420°C when KF was used, and 460 to 470°C with KCl. In the presence of CO_2 no remarkable reduction in the activity of the catalyst was observed after 90 hr . An optimum yield of vinylchloride was obtained with a catalyst volume of 60 cm^3, 2 hr duration of experiment, 700 Ncm^3/min of water vapor, and 150 Ncm^3/min of CO_2. Absence of one of the two gases caused an accumulation of the polymerizate. Other gases (N_2, CO, etc.) were not studied, but there are reasons for

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assuming that other gases containing CO_2, even smoke gases under certain conditions may act in the same way as water vapor. An increase in selectivity and acitivty of the catalyst and larger additions of CO_2 increase the yield of vinylchloride and transformation of dichloroethane (Table 2). The decrease in the transformation of $C_2H_4Cl_2$ (given in Table 3), with increasing amounts of water vapor, is due to a reduction in the time of catalysis caused by an increase in volume rate. The optimum ratio $C_2H_4Cl_2/H_2O$ vapor could not be determined, since the volume rate of dichloroethane affects the reaction independently of water vapor (Table 4). These data determined for normal reaction vessels with external heating, also hold for adiabatic units. In the latter, however, the efficiency of the catalyst and the yield of final products are considerably higher. Water vapor was preheated to 200 to 250°C, dichloroethane vapor to 700 to 800°C. Before the beginning of the reaction the reaction vessel (a cylinder of fire clay) was heated by overheated water vapor to a temperature exceeding that of the reaction, and was then regulated by changing the temperature of overheating.

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Table 5 gives the experimental results. Vinylchloride thus synthesized was very suitable for the polymerization in solvents. Low amounts of acetylene and traces of ethylene glycol are formed as side products. Drawbacks of the method are: formation of diluted hydrochloric acid, CO_2 addition, and intensive overheating of water vapor. The consumption of CO_2 can be considerably reduced by recirculation. The elimination of other difficulties could be attained by partial or complete replacement of water vapor by smoke gases. I. I. Ioffe is mentioned. There are 1 figure, 5 tables, and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc.

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Separation of hydrogen chloride...

Legend to Table 2: effect of CO_2 amount on the yield of vinyl chloride and transformation of dichloroethane supply with dichloroethane: 0.5, water vapor: 1 kg/l of the catalyst per hr), 1) supply with CO_2 kg/l of the catalyst per hr, 2) transformation of dichloroethane, %, 3) vinyl chloride yield, % of the theoretical yield.

1) Подача CO_2, кг/л катализатора в час	2) Степень конверсии дихлорэтана, %	3) Выход хлористого винила, % от теории
0,1	43,2	79,0
0,2	43,5	85,2
0,3	47,2	99,0

Tab 2

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Legend to Table 3: influence of the amount of water vapor on the transformation of dichloroethane (supply with dichloroethane: 0.5, CO_2: 0.1 kg/l of catalyst per hr), 1) supply of water vapor kg/l of catalyst per hr, 2) transformation of dichloroethane, %, 3) yield of vinyl chloride, % of the theoretical yield.

Tab. 3

1) Подача водяного пара, кг/л катализатора в час	2) Степень конверсии дихлорэтана, %	3) Выход хлористого винила, % от теории
0,25	60,5	79,0
0,4	57,0	81,5
0,7	43,2	79,0
1,3	40,9	82,0
1,5	32,0	76,4

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Separation of hydrogen chloride...

Legend to Table 4: influence of the rate of supply of dichloroethane on the transformation of dichloroethane (supply of water vapor: 0.8, CO_2: 0.1 kg/l of catalyst per hr), 1) supply of dichloroethane kg/l of the catalyst per hr), 2) transformation of dichloroethane %, 3) yield of vinylchloride, % of the theoretical yield.

1) Подача дихлорэтана, кг/л катализатора в час	2) Степень конверсии дихлорэтана, %	3) Выход хлористого винила, % от теории
1,5	21,2	76,0
1,0	37,0	77,6
0,5	43,5	81,7

Tabl

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Separation of hydrogen chloride...

Legend to Table 5: dependence of the fundamental parameter of the method on the rate of supply of dichloroethane (supply of water vapor: 3.5, CO_2: 0.15 kg/l of the catalyst per hr), 1) dichloroethane supply kg/l of catalyst per hr, 2) transformation of dichloroethane, % 3) yield of vinylchloride, % of the theoretical yield, 4) efficiency of catalyst in kg/l per hr.

1) Подача дихлорэтана, кг/л катализатора в час	2) Степень конверсии дихлорэтана, %	3) Выход хлористого винила % от теории	4) Производительность, кг/л катализатора в час
1,5	62,0	96,0	0,55
2,3	61,1	94,3	0,82
3,0	58,2	95,2	1,04
4,5	43,0	94,3	1,12

Tab. 5

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CHERVINSKIY, K.A.; ORINYANSKIY, A.M.

Oxidation of cetane at high temperatures. Khim.i tekh.topl.i masel 6 no.6:15-16 Je '61. (MIRA 14:7)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Hexadecane) (Oxidation)

CHERVINSKIY, K.A.; KARBAN, V.I.

Effect of the additions of carboxylic acids on the oxidation of cyclohexanone in the liquid phase. Ukr.khim.zhur. 28 no.2:198-202 '62. (MIRA 15:3)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Cyclohexanone) (Acids, Organic) (Oxidation)

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[Technological processes of petrochemical synthesis] Tekhnologicheskie metody neftekhimicheskogo sinteza. Moskva, Gostoptekhizdat, 1963. 87 p. (MIRA 16:5)
(Petroleum chemicals) (Chemical reactors)

RUBAN, I. N.; CHERVINSKIY, K. A.; VARSHAVSKAYA, O. V.

Oxidation of p-chlorotoluene in the liquid phase. Zhur. VKHO 8 no.2:227 '63. (MIRA 16:4)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

(Toluene) (Oxidation)

CHERVINSKIY, K.A.; ZHEREBTSOVA, L.P.

Origin of the degenerated branching of reaction chains in the catalyzed oxidation of p-xylene in the liquid phase. Trudy DKHTI no.16:95-100 '63. (MIRA 17:2)

CHERVINSKIY, K.A.; IVANOV, A.M.; NIKITINA, L.L.

Some regularities of the liquid phase oxidation of p-xylene.
Khim. prom. no.10:742-743 O '63. (MIRA 17:6)

CHERVINSKIY, K.A.; ZHEREBTSOVA, L.P.; KOROTUN, L.S.

Kinetics of p-xylene catalyzed oxidation in the liquid phase. Ukr. khim. zhur. 29 no.8:842-847 '63. (MIRA 16:11)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut im. F.E. Dzerzhinskogo.

CHERVINSKIY, K.A.; BARANOVA, Ye.I.

Oxidation of acetophenone in butyric acid. Zhur. VKHO 8 no.5: 596-597 '63. (MIRA 17:1)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

L 51056-65 EPF(c)/EWP(j)/EWT(m) Pc-4/Pr-4 RM

ACCESSION NR AM5001005 BOOK EXPLOITATION S/ 24 B+1

Chervinskiy, Konstantin Aleksandrovich

Control of reactions in petrochemical synthesis (Upravleniye reaktsiyami neftekhimicheskogo sinteza), Moscow, Izd-vo "Khimiya", 1964, 122 p. illus., biblio. Errata slip inserted. 2,200 copies printed.

TOPIC TAGS: chemical engineering, catalysis, chemical reaction, organic synthesis

PURPOSE AND COVERAGE: This book presents the basic methods of controlling chemical reactions in petro-chemical and basic organic synthesis. The various control methods (temperature, pressure, light, electrical discharge, ionizing radiation, and catalysts), their effect on a process and their application, and the relation between the features of chemical reactions and control of these reactions are considered. The book shows how control of chemical processes is achieved in practice in chemical engineering by means of automation and automatic optimization. The book is intended for engineers and technicians of the oil refining and petro-chemical industries and for chemical engineers; it can also be of interest to students of higher educational institutions and technicums specializing in organic synthesis.

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Card 2/2

CHERVINSKIY, K.A.; CHEREBTSOVA, L.P.

Nature of the limiting yield in the liquid-phase oxidation of p-xylene. Kin.i kat. 6 no.5:792-796 S-O '65.
(MIRA 18:11)

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NOVASH, V.I., kand.tekhn.nauk; CHERVINSKIY, L.L., inzh.

"Multicontact" magnetic relay with a choke-transformer magnetic amplifier. Izv.vys.ucheb.zav.; energ. no.12:10-16 D '58. (MIRA 12:3)

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NOVASH, V.I., kand.tekhn.nauk, dotsent; KAVTSEVICH, Ye.N., inzh.; KAKHANOVICH, V.S., inzh.; KRAS'KO, A.S., inzh.; CHERVINSKIY, L.L., inzh.

Conditions for the establishment of synchronous operation in sections of an electric power system in the presence of non-synchronous automatic reclosing. Izv. vys. ucheb. zav.; energ. 5 no.2:5-11 F '62. (MIRA 15:3)

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Algorithm for basing the areas of application of approximation formulas in calculating power and efficiency losses in a.c. power transmission lines. Izv.vyc.ucheb.zav.; energ. 8 no.9:6-12 S '65. (MIRA 18:10)

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