"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

S/193/60/000/008/007/018
A004/A001

The 3P 128 (ZR128) and 3P 97 (ZR97) Forming and Cutting-Off Automatics

and the component being cut off, the component is produced without centering projection. The ends of the bars or coils are put into the hollow spindle by hand. All subsequent operations are automated and actuated by a camshaft with profiled cams acting on levers which control the machine mechanisms. The tools are advanced towards the workpiece independently by two levers whose axles of revolution are fastened to the tool head. The tool setting on the travel magnitude is effected by adjusting screws. The spindle of the ZR128 machine is driven by a 1.7 kw a-c electromotor, that of the ZR97 machine by a 1.0 kw a-c electromotor. The number of spindle revolutions is varied with the aid of change gears. The camshaft of the ZR128 machine is actuated by two worm couples and change gears driven by an individual 0.27 kw electromotor. The camshaft of the ZR97 automatic is rotated by the spindle drive with the aid of a chain transmission through a worm couple. The hydraulic drive of the ZR128 automatic is actuated by a wing pump of 12 liter/minute capacity driven by an 1.7 kw electromotor. The bars are clamped in a clamping fixture located in the hollow of the spindle and actuated by a push tube, which also effects the material feed. The ZR128 automatic is equipped with two additional clamping fixtures. The author presents the following technical specifications of the ZR128 and ZR97 automatics (those of the ZR97 model are put in

Card 2/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

S/193/60/000/008/007/018
A004/A001

The 3P128 (ZR128) and 3P97 (ZR97) Forming and Cutting-Off Automatics

brackets): diameter of stock being machined - 4-12 (4-12) mm; length of component being machined - 30-80 (30-75) mm; range of spindle rpm - 620-3,100 (670-2,000); range of camshaft rpm - 4.3-15.0 (3.5-19.4); manufacturing time for one component - 4.0-13.8 (3-17) seconds; number of electromotors - 4 (2); total power of electromotors - 3.8 (1.13) kw; overall dimensions (length x width x height) - 1,800 x 915 x 1,275 (1,520 x 900 x 1,200) mm; weight - 1,000 (900) kg. The productivity of the described automatics is by 1.5-2 times higher than that of the machine tools being used at present. There is 1 figure.

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.I.

The 1B-124 and 1B-136 automatic turret lathes. Biul.tekh.-ekon.inform. no.9:18-20 '60. (MIRA 13:10)

(Lathes)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

86058

15100

S/193/60/000/010/007/015
A004/A001

AUTHOR: Antonovskiy, M. I.

TITLE: Model ЛР-97 (LR-97) Jig Boring Machine

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No.10, pp.30-32

TITLE: In 1960 the Leningradskiy stankostroitel'nyy zavod im. Sverdlova (Leningrad Machine Tool Plant im. Sverdlov) manufactured the double-column LR-97 jig boring machine, the design of which is based on the model ЛР-87 (LR-87) of the same Plant [see Byulleten' tekhniko-ekonomicheskoy informatsii, 1957, No. 11]. The machine has two spindle heads and is designed for boring, milling, drilling, countersinking and facing operations. With the aid of an optical system for the setting of table and spindle heads the machine has been turned into a high-precision measuring device, which makes it possible to measure in a triaxial orthogonal coordinate system, i. e. along length, width and height, with an accuracy of up to 1μ. The LR-97 jig boring machine has the following basic units: a bed with one V-shaped and one plane bedway, two vertical columns connected at the top by a crossrail, a crosshead block with the vertical spindle head, a horizontal spindle head on the right column, a follower rest on the left column. The

Card 1/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

86058

Model JP-97 (LR-97) Jig Boring Machine

S/193/60/000/010/007/015
A004/A001

vertical and horizontal spindle heads are identical as to design. The spindles are driven through a gear box by a-c electric motors. To absorb hard shocks and vibrations, couplings of varying rigidity are placed between electromotors and gear boxes. To increase the smoothness of the table travel and its setting accuracy, a table discharge is provided. All movable units of the machine can be clamped which increases its rigidity and reduces vibrations. A telescope fastened on the follower rest and an illuminator fitted on the horizontal spindle head ensure the superposition of the axes of the follower rest and the horizontal spindle with an accuracy in the range of 5 - 6μ. A handle is provided for on the control panel to select the machine unit which is to be given the command to move. The d-c electromotor for the feed of the movable units can be regulated within a range of 2 - 3,600 rpm. On optical screens tenths, hundredths and thousandths of one millimeter, magnified by 120 times, can be observed. The gears of the gear box can be switched by remote control from the control panel. The fast selection of free play is ensured by a special device. The design of the model LR-97 jig boring lathe provides for the future installation of program control equipment. The following technical data are given: effective table area (length x width) - 1,600 x 1,000 mm; maximum table travel - 1,400 mm; maximum weight of workpiece being machined - 1,500 kg; distance between face of vertical spindle and table

Card 2/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

86058

Model JP-97 (IP-97 Jig Boring Machine

S/193/60/000/010/007/015
A004/A001

surface - from 50 - 1,000 mm; cross travel of vertical head - 1,000 mm; distance between horizontal spindle axis and working surface of table - 80 - 710 mm; distance between columns - 1,400 mm; maximum drilling diameter being recommended - 30 mm; maximum spindle sleeve move - 350 mm; maximum boring diameter being recommended - 250 mm; maximum possible boring length in one setting - 300 mm; number of spindle revolutions (18 speeds) - 40 - 2,000 rpm; feed range (30 speeds) - 0.8-630 mm/min; power of electromotors: spindle rotation - 2.8 kw, travel of table, heads and spindles - 0.45 kw; overall dimensions - (length) 4,440 x (width) 4,140 x (height) 3,820 mm; weight - 20 tons. There is 1 figure.

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M. I.

The KT-1 multiple-purpose circular knitting machine. Biul.tekh.-ekon.inform. no.10:43-45 '60. (MIRA 13:10)
(Knitting machines)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.I.

The MN-1 automatic makhorka stuffing machine. Biul.tekh.-ekon. inform. no.5:51-52 '61. (MIRA 14:6)
(Tobacco processing machinery)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

24244

S/193/61/000/006/004/007
A004/A104

1.1100

AUTHOR: Antonovskiy, M. I.

TITLE: The 262ПрI (262PrI) horizontal boring machine with digital program control

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 6, 1961, 32-35

TEXT: In 1960 the Leningradskiy zavod im. Sverdlova (Leningrad Plant im. Sverdlov) has developed and fabricated the 262PrI horizontal boring machine with digital program control. The machine is intended for the tooling of body-type parts with apertures requiring accurate dimensions and positioning. The displacement of the mobile machine units is effected by individual d-c motors with a speed regulation range of 1 : 1,800. The following operations are program-controlled: setting the machine table in transverse direction, adjusting the spindle stock height, drilling, countersinking and boring of holes of the same diameter, boring co-axial holes of different diameters in the range of 140-220 mm in one or two walls, boring of blind holes with an accuracy of ± 0.05 mm, undercutting cam face ends with a wide tool with the aid of the table longitudinal feed, precision milling of end surfaces in several passes. The minimum possible

Card 1/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

24244
S/193/61/000/006/004/007
A004/A104

The 262ПрI (262PrI) horizontal boring ...

counting step for all units being programmed is 0.01 mm. The setting accuracy of the mobile machine units on coordinates is 0.03 mm, that of the table in longitudinal direction is 0.05 mm. The program is recorded with the aid of a table-type puncher on four standardized punched cards. 1,300 holes can be recorded on the cards in the form of 50 columns of 26 punchings each. The puncher is calculated for the coding of integral millimeters in the range of 0 - 1,100 mm, and fractions of millimeters in the range of 0 - 0.99 mm of the whole feed and cycle command range. Rough setting of units is carried out with the aid of coded feedback pickups, precision setting of stock and table in transverse direction is effected with the aid of metallic scales with 1 mm graduation (with an accuracy of 2-3 μ per meter) and by optical magnification of the millimeter graduation, as well as with photo-pickups and coded contact pickups. The following technical specifications are given: diameter of extensible spindle - 110 mm; maximum spindle boom - 710 mm; boring diameter of boring bar with radial slide - 140-220 mm; effective table area - 1,200 x 900 mm; maximum table travel (longitudinal and transverse) - 1,000 mm; distance of spindle axis from the table surface - from 0 to 1,000 mm; spindle rotation speed range (22 speeds) - 12.5 - 1,600 rpm; feed range: of table and spindle stock - 1.4 - 1,110 mm/min, of extensible spindle - 2.2 - 1,800 mm/rev; threading: of metric thread with pitches from

Card 2/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

24244
S/193/61/000/006/004/007
A004/A104

The 262ПрI (262PrI) horizontal boring ...

1 to 10 mm; of inch thread with 4 - 20 threads per inch; maximum permissible weight of part being worked - 2,000 kg; power of the main two-speed motor 7.5/10 kw; overall dimensions of the machine - 7,330 x 3,500 x 3,015 mm; weight - 13,500 kg. In comparison with the 262Pr model the new 262PrI model has a number of advantages: instead of 10 holes, 25 holes of different diameter can be machined, an automatic change of diameters of the holes being bored is effected and the undercutting of face ends and threading is taking place according to a given program. Besides, the program control resolving power and the setting accuracy of the mobile units as to given coordinates have been increased. There is 1 figure.

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

69929

6,9000

S/109/60/005/05/018/021
E140/E435

AUTHOR: Antonovskiy, M.S.

TITLE: Diffraction of a Plane Electromagnetic Wave from a Metal Elliptical Semi-Cylinder Lying on a Metal Plane

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 5, pp 861-863 (USSR)

ABSTRACT: The author employs Grinberg's method (Ref 2) for solving the following problem: the field within a closed volume formed by the section through con-focal elliptic cylinders by a plane parallel to the generatrices of the cylinders and passing through their minor axes is considered. The field is excited by a line current parallel to the axes of the cylinders. The investigated region is then transformed to the half-space bounded by the plane on which the elliptic semi-cylinder is placed. The line current is removed to a sufficiently great distance giving the solution for diffraction of a plane electromagnetic wave from a metal half-cylinder lying on a metal plane. There are 2 figures and 5 references, 4 of which are Soviet and 1 English in Russian translation.

SUBMITTED: August 8, 1959

Card 1/1

4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.

Some questions on dimensionality. Trudy SAGU no.37:65-70 '54. [i.e. '53] (MLRA 10:3)

(Dimensional analysis)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.Ya., Cand Phys- Math Sci -- (diss) "Homology rings of open numbers." Tashkent, 1959. 10 pp (Acad Sci UzSSR. Inst of Math im V.I. Romanovskiy). 175 copies. Bibliography at end of text (20 titles) (KL, 39-59, 100)

3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

VITUSHKIN, Anatoliy Georgiyevich; ANTONOVSKIY, M.Ya., red.; GORYACHAYA, M.M., red.; GAVRILOV, S.S., tekhn.red.

[Evaluating the complexity of the problem of tabulating] Otsenka slozhnosti zadachi tabulirovaniia. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 228 p. (MIRA 13:2)
(Mathematics--Tables)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

16(1)

06556

SOV/166-59-4-7/10

AUTHOR: Antonovskiy, M.Ya.

TITLE: Rings of Homologies of Non-Closed Sets

PERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-matematicheskikh nauk, 1959, Nr 4, pp 47-54 (USSR)

ABSTRACT: The author uses notations and results of K.A.Sitnikov [Ref 2]. Let A be an arbitrary set in the n-dimensional spherical space; let $\nabla^p A$ be groups of ∇-cycles lying on the nerves of open star-shaped finite coverings of A. It is shown that the direct product $\sum_p \nabla^p A$ can be changed in a ring which is a topological invariant of A and is denoted by $K_\nabla A$. Similarly from $\sum_p \Delta^p A$ the ring $K_\Delta A$ is obtained.
Let $A_i \subset S^n$, $\dim A_i \leqslant \frac{n-2}{2}$, $i=1,2$; $B_i = S^n \setminus A_i$. If the rings $K_\Delta A_1$ and $K_\nabla A_2$ are not isomorphic, then the sets B_1 and B_2 are not homeomorphic.
There are 6 references, 3 of which are Soviet, and 3 American.

ASSOCIATION: Institut matematiki AN UzSSR (Mathematical Institute AS UzSSR)

SUBMITTED: April 2, 1959

Card 1/1

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

SARYMSAKOV, T.A., akademik; ANTONOVSKIY, M.Ya.; DEKTYAREV, I.M.

Generalized metric spaces. Dokl.AN Uz.SSR no.5:3-7 '59. (MIRA 12:8)

1. AN UzSSR (for Sarymsakov).
(Spaces, Generalized)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.Ya.

Homology rings of nonclosed sets. Dokl. AN Uz.SSR no.7:3-5 '59. (MIRA 12:10)

1. Institut matematiki im. V.I.Romanovskogo AN UzSSR. Predstavleno akad. AN UzSSR T.A.Sarymsakovym.
(Topology)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M. YA.

"O Topologicheskikh Polupolyakh"

Report Submitted for Symposium on General Topology and its relations to modern Analysis and Algebra, Prague, 1-8 Sep 61

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.Ya.; BOLTYANSKIY, V.G.; SARYMSAKOV, T.A.; SIRAZHDINOV, S.Kh. prof. otv.red.

[Metric spaces above half-fields] Metricheskie prostranstva nad polupoliami. Tashkent, 1961. 70 p. (Tashkent. Universitet. Trudy, no.191). (MIRA 15:5)

(Topology)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.Ya.; BOLTYANSKIY, V.G.; SARYMSAKOV, T.A.;
SIRAZHDINOV, S.Kh., prof., otv. red.

[Topological semifields]Topologicheskie polupolia. Tashkent, Izd-vo SamGU. 1960. 48 p. (MIRA 16:4)
(Topology)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.Ya.; BOLTYANSKIY, V.G.; SARYMSAKOV, T.A.

Finite-dimensional moduli over semifields. Nauch. trudy TashGU no.208. Mat. nauki. no.23:3-29 '62. (MIRA 16:8)

(Topology)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.Ya.; BOLTYANSKIY, V.G.; SARIMSOKOV, T.A.; SIRAZHDINOV, S.Kh., otv. red.; SOKOLOVA, A.A., red.; GOR'KOVAYA, Z.P., tekhn. red.

[Topological Boolean algebras] Topologicheskie algebry Bulia. Tashkent, Izd-vo AN UzbSSR, 1963. 132 p. (Topologicheskie polupolia, no.1) (MIRA 17:4)

1. Chlen-korrespondent AN Uzb.SSR (for Sirazhdinov).

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, M.Ya.

Theory of normalized spaces over half-fields. Dokl. AN Uz. SSR 21 no. 11:5-7 '64. (MIRA 18:12)

1. Tashkentskiy politekhnicheskiy institut. Submitted Sept. 22, 1964.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACC NR: AP7005424

SOURCE CODE: UR/0042/66/021/004/0185/0218

ANTONOVSKIY, M. Ya.; BOLTYANSKIY, V. G.; SARYMSAKOV, T. A.

"Outline of the Theory of Topological Semi-Fields"

Moscow, Uspekhi Matematicheskikh Nauk, No. 4, Vol. 21, 1966, pp 185-218

Abstract: A topological semi-field is a semi-ordered topological ring with a partially feasible operation of extracting the inverse element. The axioms of the topological semi-field are so selected that its properties are similar to a field of real numbers. Thus, metric spaces over semi-fields can be used to strengthen a number of analysis theorems, such as the theorems of Kakutani (existence of an invariant metric on a group), the Banach theorem (open mappings), etc. Semi-fields themselves are convenient devices in dealing with problems in the theory of probability and ergodic theory. If a topological Boolean algebra is the set of all idempotents of an arbitrary semi-field, it is easy to determine the probability measure as the mapping of the algebra in a cone of positive elements of a semi-field. With this approach certain unsolved problems in ergodic theory have a real, generalized solution.

The authors consider only the topological applications of the theory of semi-fields; normed spaces over semi-fields and applications to the theory of probability and ergodic theory are not discussed. The authors review the

Card 1/2

UDC: 513.83

0926 2291

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACC NR: AP7005424

Tikhonov-type semi-field, metric spaces over a set of real functions, metrization of uniform structures, regular metrics and metrization of proximity space, convergence in metric space, completeness, hypercompleteness, the theorem of a closed graph, general definitions of a topological semi-field, Boolean topological algebras, universal semi-fields, and the theorem of classification. Orig. art. has: 13 formulas. [JPRS: 38,695]

ORG: none

TOPIC TAGS: real function, Boolean algebra, topology

SUB CODE: 12 / SUBM DATE: 16Mar66 / ORIG REF: 020 / OTH REF: 010

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

CA 2

ANTONOVSKIY, S.D.

K. H.

Nikolai Ignat'evich Nikitin. P. P. Komarov and S. D. Antonovskii. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 2,N 62(1960).—Summary of scientific work, with portrait, on 60th birthday. G. M. Kosolanoff

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

[redacted], A. D.

"The Reaction of Alkaline Lignin From Black Sulfated Wood Chips With Acetylene." Cand Tech Sci, Leningrad Forestry Engineering Acad, Leningrad, 1954. (RZhKhim, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)
SO: Sum. No. 598, 29 Jul 55

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

AUTONOVSKIY, S. D.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

USSR

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ZAYTSEVA, A.F.; FEDORISHCHEVA, I.P.; ANTONOVSKIY, S.D.; NIKITIN, N.I.

Sulfate cellulose from the Dahurian larch wood. Trudy Inst. lesa 45:70-78 '58. (MIRA 11:11)
(Larch) (Cellulose)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

SOV/80-32-3-41/43

5(3)

AUTHORS: Maytseva, A.F., Karpov, A.Z., Levin, S.Z., Antonovskiy, S.D.

TITLE: Dulcitol Obtained From Larch Arabogalactane (Dul'tsit iz arabogalaktana listvenitsy)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 3, pp 690-695 (USSR)

ABSTRACT: In larch wood there are 10-12% of water-soluble polysaccharide of arabogalactane. On hydrolysis of this polysaccharide 6 parts of galactose and 1 part of arabinose are obtained. Hydrogenation produces multi-atomic alcohols, mostly dulcitol. Gum extracted from larch wood contained 94.5% arabogalactane and 1.5% ashes. An increase of the pressure from 30 atm to 150 atm raises the dulcitol yield of the hydrogenation from 76 to 97.8%. Hydrogenation with a Ni-catalyst on silica gel, a temperature of 120°C, a pressure of 150 atm and a sugar concentration of 15% in the raw material had a yield of 98-97% in the first 36 hours.

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

SOV/80-32-3-41/45

Dulcitol Obtained From Larch Arabogalactane

There are 2 tables, and 4 references, 2 of which are Soviet, 1 English and 1 German.

ASSOCIATIONS: Institut lesa AN SSSR (Institute of Wood of the AS USSR). Leningradskiy nauchno-issledovatel'skiy institut po pererabotke nefti i polucheniyu zhidkogo sinteticheskogo topliva (Leningrad Scientific Research Institute for the Processing of Oil and the Production of Liquid Synthetic Fuel). Lesotekhnicheskaya akademiya imeni S.M. Kirova (Wood-Technical Academy imeni S.M. Kirov)

SUBMITTED: July 12, 1958

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, S.D., kand.tekhn.nauk, dotsent; ZAYTSEVA, A.F., kand.tekhn. nauk, starshiy nauchnyy sotrudnik

Eminent scientist in the field of wood chemistry and cellulose. Bum. prom. 35 no.4:14 Ap '60. (MIRA 13:10)

1. Lesotekhnicheskaya akademiya im. S.M.Kirova (for Antonovskiy).
2. Institut vysokomolekulyarnykh soyedineniy AN SSSR (for Zaytseva).
(Nikitin, Nikolai Ignat'evich, 1890-)
(Wood—Chemistry)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

NIKITIN, Nikolay Ignat'yevich. Prinimali uchastiye: ABRAMOVA, Ye.A., starshiy nauchnyy sotr., kand. khim. nauk; AKIM, E.L., inzh.-tekhnolog; ANTONOVSKIY, S.D., dots., kand. tekhn. nauk; VASIL'YEVA, O.G., inzh.-tekhnolog; ZAYTSEVA, A.F., starshiy nauchnyy sotr., kand. tekhn.nauk; KLENKOVA, N.I., kand. tekhn. nauk; MALEVSKAYA, S.S., kand. khim. nauk; NIKITIN, V.N.starshiy nauchnyy sotr., kand. fiz.-mat. nauk; OBOLENSKAYA, A.V., kand. tekhn. nauk, dotsent; PETROPAVLOVSKIY, G.A., starshiy nauchnyy sotr., kand. tekhn. nauk; PONOMAREV, A.N., kand. tekhn. nauk, dots.; SOLECHNIK, N.Ya., prof., doktor tekhn. nauk; TOKAREV, B.I., inzh.; TSVETAYEVA, I.P., kand. tekhn. nauk; CHOCHIYEVA, M.M., kand. tekhn. nauk; ELIASHBERG, M.G., doktor tekhn. nauk; YUR'YEV, V.I.; KARAPETYAN, G.O., red.izd-va; ZAMARAYEVA, R.A., tekhn. red.

[Wood chemistry and cellulose] Khimiia drevesiny i tselliulozy. Moskva, Izd-vo Akad.nauk SSSR, 1962. 711 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Nikitin). 2. Zaveduyushchiy kafedroy fizicheskoy i kolloidnoy khimii Lesotekhnicheskoy akademii (for Yur'yev).

(Cellulose)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, S.D.; CHOCHIYEVA, M.M.; ZHDANEYEVA, Z.A.

Effect of bleaching on the degree of polymerization of low viscosity viscose cellulose. Bum.prom. 38 no.2:17-19 F '63. (MIRA 16:2)

1. Ordena Lenina Lesotekhnicheskaya akademiya imeni S.M.Kirova.
(Woodpulp) (Bleaching)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANISIMOVA, K.I.; ANTONOVSKIY, S.D.; BELOZEROVA, L.A.; ZAYTSEVA, A.F.; SHTEYNBOK, S.D.

Larch as a source of the production of a series of useful substances. Rast. res. 1 no.1:74-83 '65. (MIRA 18:6)

1. Botanicheskiy institut im. V.L. Komarova AN SSSR; Lesotekhnicheskaya akademiya im. S.M. Kirova i Institut vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

1. LIPONOV, T. B.; ANTONOVSKIY, S. YU.

2. USSR (600)

4. Radishes

7. Storing radishes. Sad i og no. 9, 1952.

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

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, Sergey Yul'yevich; LAPIDUS, M.A., red.; BALLOD, A.I., tekhn. red.

[Vegetables at reasonable prices all year round] Deshevye ovoshchi - kruglyi god. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1961. 116 p. (MIRA 14:8)

(Vegetable growing) (Greenhouses)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACC NR: AT6007966 (A) SOURCE CODE: UR/0191/66/000/003/0021/0023

AUTHOR: Tsubina, Kh. V.; Nesterov, A. F.; Al'shits, I.M.; Antonovskiy, V. A.; Grad, N. M.

ORG: none

TITLE: Hardening of the unsaturated polyester resins in presence of cyclohexanone peroxides

SOURCE: Plasticheskiye massy no. 3, 1966, 21-23

TOPIC TAGS: polyester plastic, hardening, cyclohexanone

ABSTRACT: The authors investigated the effect of 3 different cyclohexanone peroxides on the hardening of polyester resins. A 1-10% styrene solution of cobalt naphthenate was used as the peptizer. The activity of the initiators studied was decreasing in the order of peroxides of 1,1' -dihydroxydicyclohexyl > 1-hydroxy-1' -hydroperoxydicyclohexyl > 1,1' -dihydroperoxydicyclohexyl. The authors studied the conditions of hardening of the polyester resins in presence of 1,1' -dihydroperoxydicyclohexyl peroxide. An increase of cobalt naphthenate from 1 to 5% accelerated gel formation and increased the hardness of molded resins. A further increase in the concentration of the peptizer gave the opposite effect. Increasing the concentration of the initiator accelerated gel formation. At > 1% of the initiator the resin became softer. A fiberglass was prepared

Card 1/2 UDC: 678.674,4'0:678.028

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.I., inzh.

Ribbing pipes for the banks of coolers in refrigerators.
Mont. i spets. rab. v stroi. 24 no.2:16-18 F '62. (MIRA 15:6)

1. Trest Prodmontazh.
(Pipe, Steel)
(Refrigeration and refrigerating machinery)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

STOROZHUK, Ya.P., kand.tekhn.nauk; ANTONOVSKIY, V.I., inzh.

Methods for calculating the maximum temperature of the flues of the combustion chambers of gas turbine systems operating on liquid fuel. Energomashinostroenie 9 no.1:47-48 Ja '63. (MIRA 16:3)
(Gas turbines)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

S/0096/64/000/002/0039/0042

ACCESSION NR: AP4012339

AUTHORS: Storozhuk, Ya. P. (Candidate of technical sciences); Antonovskiy, V. I. (Engineer)

TITLE: A study of the emissive properties of a flame in a single damper combustion chamber of a gas turbine

SOURCE: Teploenergetika, no. 2, 1964, 39-42

TOPIC TAGS: flame emission, combustion chamber, air pressure, excess air coefficient, emission distribution, flue cooling, platinum platinum rhodium thermocouple, vacuum radiation thermal element, thermal radiation flux, gas blackness, infrared radiation

ABSTRACT: One of the problems which arose with the construction of the experimental gas turbine combustion chamber was the cooling of the flue metal. The development of a reliable method for calculating the wall temperature was hampered by the absence of experimental data on the emission characteristics of flame. Experiments were conducted varying several parameters (principally the air-pressure and the coefficient of excess air). The chamber had a divided air supply for

Card 1/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR: AP4012339

independent control of primary and secondary air. Two types of flues were studied, both 364 mm in diameter and joined to a transition cone. One flue was continuous, the other in 3 sections, with a 4-mm annular gap between sections. For experimental purposes 2 dampers with a 45° and 52° tilt were available. Diesel fuel was sprayed from a centrifugal single-stage jet with a 75° flame. The variables of the air and fuel, the flame temperature, the normal total thermal radiation and gas composition were measured. The latter three were taken at the same cross section at 4 points along the flue. The flame temperature was measured with a suction platinum platinum-rhodium thermocouple. The gross flame radiation (luminous brightness) was measured with a vacuum radiation thermal element (RTE) with 2 sensitive elements, one of which was used for comparison of the surrounding temperature. It was sensitive to infrared radiation in the band 0.18-11 μ which was suitable according to the standards of D. I. Weeks and O. A. Saunders (Journal of the Inst. of Fuel, No. 209, 1958). The prescribed normal operating conditions were: volumetric thermal stress; $4 - 8 \times 10^6$ large calories/m^3·hr atmosphere, excess coefficient of primary air $\alpha_1 = 1.15-1.8$, air flow rate up to 5500 kg/hr, air temperature at chamber inlet $t_B = 60-200C$, pressure in the chamber $p = 1.05-2.03$ atmospheres, and temperature of exhaust gases $t_{ex} = 500-740C$. The experimental installation permitted variation of each parameter. The first studies varied

Card 2/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR: AP4012339

the excess air coefficient. The radiation increased to a greater extent in the initial sections of the flue and with lower air (α = 1.2-1.5). An increase in the intake air temperature led to a decrease in the radiation at the measuring points as a result of the shifting of the active combustion zones to the flame root. The next study (conducted only on the segmented flue) varied the chamber pressure. The radiation sharply increased with an increase in pressure at the first 2 measuring points, especially with a small α_1. Both damper settings were studied, and it was found that the larger angle setting caused more turbulence and shifted the maximum temperature zone (and thus radiation) to earlier stages of the chamber. The radiation at the end of the chamber was due to H_2O and CO_2 and could be determined from graphs and formulas for nonluminous gases. Measured values exceeded a calculated value by 20-30%. This was attributed to variation in the temperature and in the composition of the gas and also to the presence of soot particles. The degree of blackness of the flame was determined from measured radiation and the calculated flame temperature. The experimental blackness values were 0.4-0.06, with their maximum values in the initial sections of the flue. The blackness at the end of the chamber was 0.08-0.06, which exceeded by 20-30% the value for pure 3-atom gases. The total degree of blackness of the flame was presented, using the principle of Buger-Baer. The coefficient of absorption was

Card 3/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR: AP4041873 S/0170/64/000/007/0087/0090

AUTHOR: Storozhuk, Ya. P.; Antonovskiy, V. I.

TITLE: Determination of the hemispherical radiation flux of a flame by a radiometer with a small angle of view

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 7, 1964, 87-90

TOPIC TAGS: combustion chamber, flame tube, gas turbine, heat radiation

ABSTRACT: A method was developed for determining the hemispherical radiative heat flux passing from a flame to the inner surface of a cylindrical combustion chamber of a gas turbine. The method makes use of calorific brightness values experimentally determined with a radiometer in several cross sections at different flame thicknesses, i.e., with a movable cold background. Experiments and calculations were made with a combustion chamber (364 mm in diameter and 950 mm long) which was operated near atmospheric pressure with solar oil as fuel. The calculation of the heat flux is reduced to the determination of the parameter ϕ which accounts for the chamber

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

CA

The negative temperature coefficient of the rate of oxidation of propane. V. L. Antonovskii and V. Ye. Sheremetyevskii (Sci. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 76, 203-6(1951).—The reaction C_3H_8 + O_2 was investigated in a static system under 282 mm. Hg. at 342, 350, 387, and 420°. Under this pressure, the upper limit of cool-flame oxidation lies at 340°, and ignition occurs at 422-5°; consequently, oxidation at 342° is close to the lower-temp., and at 420° close to the upper-temp., reaction. The max. over-all rate (in mm./sec.) decreases with rising temp. from 340 to 387°, where it passes through a min. (about 0.4 mm./sec.); it then rises with further rising temp. from 387 to 420°. Products were analyzed as described previously (*C.A.* 45, 6007*f*). On the basis of the interpretation according to which formation of C_2H_4, C_2H_6, CH_4, and H_2 is the result of direct decomps. of normal C_3H_8 radicals, whereas the oxygenated products (HCHO, MeOH, AcH, HCOOH, CO, CO_2, etc.) stem from oxidation of both normal C_3H_8 and of iso-C_3H_8, one can establish, at each temp., the part of the unbranched cracking-type reaction (due to decomps. and oxidation of C_3H_7) and of the branched oxidation-type reaction (due to oxidation of both C_3H_8 and iso-C_3H_8). At 342, 350, 387, and 420°, the amts. of C_3H_8 spent, at the end of the reaction, in formation of cracking and of oxidation products are, resp., 28 and 30.6, 26.6 and 40.8, 41.3 and 25.8, 52.3 and 20 mm., and the ratios of the 2 types are 0.66, 0.65, 1.6, 2.6, for approx. the same amt. of C_3H_8 reacted. The fall of the over-all max. rate between 340 and 387° can thus be attributed to an inhibition of the branched part of the oxidative path of reaction; this inhibition must be strong enough to become predominant. The subsequent rise of the rate between 387 and 420° is due to predominance of the cracking path of the reaction. The inhibition of the branching path is most plausibly attributed to a shortening of the branching process; specifically it is assumed that the accelerating effect of AcH, which dets the branching, decreases with increasing temp. This assumption was verified by expts. without and with AcH (1 v mm.) added in advance. At 350°, advance addn. of AcH accelerates the max. rate considerably (by approx. a factor of 2); with increasing temp., this accelerating effect decreases, and vanishes altogether at the min. at 387°. It thus appears confirmed that the neg. temp. coeff. is found in the temp. range where, with increasing temp., inhibition of the branched part of the oxidative path predominates over the increase of the rate of the unbranched part and of the cracking path. The amts. of HCHO, AcH, and MeOH actually produced over the whole course of the reaction (i.e. irrespective of their subsequent oxidation) are calcd. (cf. preceding abstr.), at 342, 350, 387, and 420°, to: 36, 20, 20; 48, 25, 25; 87, 6.5, 6.5; 80, 4.5, 4.5 mm. Consequently, with increasing temp. the amts. of AcH and MeOH decrease markedly, whereas the amt. of HCHO varies but little. This means that with increasing temp. the branching oxidation reaction which produces AcH and MeOH is increasingly inhibited. The scheme adopted accounts for the ignition limits in the following way. At low temps., formation of iso-C_3H_7 is predominant, owing to the greater ease of breaking a H atom off a CH_2 group as compared with the CH_3 group. Consequently, in the lower-temp. range, the sp. gr. of the cracking is small, and along the oxidative path the branching part is prevalent. This part is responsible for the ignition at the lower limit which thus appears to be of a chain nature. With rising temp., the amt. of n-C_3H_7 increases, and with it the sp. gr. of the cracking path and of the unbranched part of the oxidative path, and the oxidation of iso-C_3H_7 loses its branched character. The upper limit ignition thus appears to be thermal. On account of the endothermicity of the cracking process, this upper-limit thermal ignition must be due to the oxidative part of the reaction.

N. Thon

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.

USSR/Chemistry - Hydrocarbon oxidation

Card 1/1 Pub. 147 - 8/27

Authors : Chernyak, N. Ya.; Antonovskiy, V.L.; Revzin, A.F.; and Shtern, V. Ya.

Title : The mechanism of hydrocarbon oxidation in gaseous phase. Part 4.- High and low temperature oxidation of propane

Periodical : Zhur. fiz. khim. 28/2, 240-253, Feb 1954

Abstract : Quantitative investigation was conducted to determine the high- and low-temperature oxidation of propane ($C_3H_8 + O_2$ and $2C_3H_8 + O_2$). The intermediate and final products, obtained in both investigated temperature zones, are listed. Some products, formed under conditions of propane oxidation, were found to be stable against further oxidation. The presence of two oxidizing and cracking tendencies, in the reaction of propane oxidation, was established. The specific weight of the cracking tendency increases with increase in temperature. Seventeen references: 3-USA; 3-English; 9-USSR and 2-French (1915-1953). Tables; graphs.

Institution : The M.V. Lomonosov State University, Moscow

Submitted : April 14, 1953

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

AUTHORS: Antonovskiy, V. L., Berezin, I. V. SOV/156-58-2-29/48

TITLE: Kinetic Isotopic Effect of Hydrogen (Kineticheskiy izotopnyy effekt vodoroda) The Reaction of Benzene-t With the Radical of Methyl (Reaktsiya benzola-t s metil'nym radikalom)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp. 320-323 (USSR)

ABSTRACT: The study of these effects forms the indispensable first stage in connection with the use of hydrogen-isotopes for the investigation of the reactivity of different C-H-compounds. Due to the knowledge of these effects the mechanism of the chemical reaction can also be clarified more thoroughly. The separation of the hydrogen atom from the aromatic nucleus by a radical at present is explained by means of 2 schemes (Refs 1-4): a) a direct stripping of the hydrogen according to which the phenyl-radical enters reactions which end by a radical recombination; b) first of all the radical R affiliates to the aromatic nucleus and forms the adduct I which subsequently reacts with the other radical and forms $R-C_6H_5$ and R'H. The stripping of hydrogen according to the reaction b) needs not take place under a substantially isotopic effect. According to scheme a) the reaction

Card 1/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

takes place in a single stage by bursting of the C—H-compound which must lead to a great isotopic effect. In the present report, the isotopic effect was measured - as given in the title - according to the reaction $CH_3\cdot + C_6H_6\text{-}t \longrightarrow CH_4\text{-} + C_6H_5\cdot$, (1) at 85,00 ± 0,05°. The calculation was carried out according to the formula $\frac{k_n}{k_t} = \frac{\text{specific activity of benzene-t}}{(\text{specific activity of } CH_4\text{-t}) \times 6}$ where 6 - indicates the number of hydrogen atoms in the C_6H_6-molecule. The test-results are given in table 1. Two test-series were made with initial concentrations of acetyl-peroxide: 0.025 and 0.01 mol/l. As can be seen from table 1, the amount of the specific activity of the separated methane (and consequently also the amount of the isotopic effect) practically does not depend on the intensity of decomposition of acetyl-peroxide. The average value of the isotopic effect amounts to 6.0% ± 0.07. It hence follows that the stripping of the hydrogen atom from benzene takes place by a direct bursting of the C—H-compound according to scheme a). Such a mechanism of stripping is characteristic for such highly

Card 2/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

[illegible] of Benzene. The Reaction of Benzene-t With the Radioactive Methyl SOV/156-58-2-29/48

active radicals as CH_3, .OH and others which form a solid bond with the benzene nucleus (Ref 2). The presence of substituents exercises a considerable influence on the mechanism of stripping. This may lead to the formation of an intermediary adduct and can direct the position on the way of scheme b) (Ref 4). Methyl radicals are formed in a benzoic acid solution in connection with [illegible] of the used acetyl peroxide. Part of them [illegible] and form methane; the remaining ones [illegible] with other radicals or affiliate with unsaturated [illegible] amongst which in the benzene-ring. Concludingly, the method of carrying out the experiment is described. There are 1 [illegible], 1 table, and 10 references.

ASSOCIATION: Kafedra khimicheskoy kinetiki Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Chemical Kinetics of Moscow State University imeni M. V. Lomonosov)

SUBMITTED: October 29, 1957

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

SOV/156-58-2-29/48

Kinetic Isotopic Effect of Hydrogen. The Reaction of Benzene-t With the Radical of Methyl

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

AUTHORS: Antonovskiy, V. L., Berezin, I. V. SOV/156-58-4-30/49

TITLE: On the Determination of the Reactivity of Hydrogen Atoms in Organic Compounds. The Kinetic Isotope Effect of Tritium in Radical Reactions of the Cycloparaffins (Ob opredelenii reaktsionnoy sposobnosti atomov vodoroda organicheskikh soyedineniy. Kineticheskiye izotopnyye effekty tritiya v radikal'nykh reaktsiyakh tsikloparafinov)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 731-735 (USSR)

ABSTRACT: A method for the quantitative determination of the relative reactivity of hydrogen atoms in organic compounds was suggested. The relative reactivity of hydrogen atoms in cyclopentane and cyclohexane was determined. The kinetic hydrogen tritium isotope effect in the reactions $CH_3^{\bullet}$ with cyclopentane, cyclohexane and cycloheptane was measured. There are 2 tables and 6 references, 2 of which are Soviet.

ASSOCIATION: Kafedra khimicheskoy kinetiki Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Chemical Kinetics M. S. U.)

~~Card 1/2~~

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V. L., Candidate Chem Sci (diss) -- "A study of the connection between structure and reactivity of hydrocarbons in radical reactions, using tritium". Moscow, 1959. 8 pp (Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov, Chem Faculty, Chair of Chem Kinetics), 150 copies (KL, No 24, 1959, 128)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

21(8) 5(0)

AUTHOR: Lepinskiy, A.V. SOV/55-59-3-29/32

TITLE: The First All-Union Conference of Universities and Colleges on Radiochemistry

PERIODICAL: Vestnik Moskovskogo Universiteta. Seriya Matematiki, Mekhaniki, Astronomii, Fiziki, Khimii, 1959, Nr 3, pp 227-229 (USSR)

ABSTRACT: This conference was convened by the initiative of the Laboratoriya Radiokhimii khimicheskogo fakul'teta MGU (Laboratory of Radiochemistry of the Department of Chemistry of Moscow State University) and was held in Moscow from April 20 to April 25, 1959. It was attended by professors, teachers, and scientific collaborators of 32 universities and colleges of the Soviet Union. In his opening address, An.N.Nesmeyanov, Dector of Chemical Sciences, stressed the importance of radiochemistry. 30 lectures were delivered by members of Moscow State University: Laboratoriya yadernoy fiziki (Laboratory of Nuclear Physics): I.P.Alimarin, A.I.Gerasimov: Production of Beryllium-7 in the Reaction (p,2n) [illegible]; I.P.Alimarin: Production of Radioactive Isotopes by Reaction as β-Rhotatron. Laboratoriya radiokhimii (Laboratory of Radiochemistry): An.N. Nesmeyanov, B.N. Kovalev, L.A. Sarsenov: Separation of Radioactive Isotopes in the Irradiation of Collidin; An.N.Nesmeyanov, Yu.A.Zaitsev, K.S.Filatov, V.Kvadratenko, Chuan Tsyn-yuan, K.Punsch, B.Shukla: Secondary Reactions of the Recoil Atoms ^{80}Br and ^{82}Br in Methyl Bromides; B.G.Dzantiyev, I.M.Barkalov, V.V.Khrapov: Reactions of "Hot" Sulfur- and Nitrogen Atoms With Hydrocarbons; B.Z.Iofa, L.V.Zakharov, A.S.Batsanov: The State of Radioactive Isotopes in Extremely Dilute Solutions; M.S. Kornilova, I.V.Melikhov: General Theory of the Coprecipitation of Radioactive Elements With Dimorphous Crystalline Precipitates; A.V.Lepinskiy, I.A.Sarich, Chuan Tsyn-yuan: Coprecipitation of Protactinium With Cerium Dioxide of Th, Pb and Ta; T.A.Fedorova, V.V.Gromadov, (illegible): Application of Radioactive Paper Chromatography; [illegible], A.M.Rabotnova, N.S.Melikhova: Accumulation and Separation of Recoil Atoms on the Basis of the Example Ra^{224} and Ra^{228}; N.S.Zaborenko, A.M.Rabotnova, T.A.Bolyarskaya, L.L.Belikhov: Application of the Emanation Method for the Investigation of the Transformation of Solids; V.I.Spitsyn, N.S.Zaborenko, A.M.Rabotnova, M.A.Bolikhova: Transformation of Heteropoly-compounds; N.S.Zaborenko, A.M.Rabotnova, S.V. Kovalenko: Geochemistry of Radium; N.S.Zaborenko, V.I. Korshunov: Microanalytical Determination of Uranium by Means of Nuclear Emulsions. An.N.Nesmeyanov, Do Dyu-Shun: Partial Vapor Pressure of Co in Alloys With Ni; Yu.A.Priselkov, Yu.A. Sapozhnikov, A.V.Tsvelyayeva, T.V.Kuzelin: The Behavior of a Molecular Ion Beam in the High-Frequency Field; I.V.Gelnikov, A.V.Lepinskiy, V.K.Shirayev: Vapor Pressure of Bismuth Chloride; I.V.Gelnikov, Yu.A.Sterenzat, Yu.K.Zakov: Various Constructions of the Sublimation Attachment to the Apparatus of the Type D. Kafedra analiticheskoy khimii (Chair of Analytical Chemistry): I.P.Alimarin, S.P.Zirkelbach: Bismuth as a Radioactive Tracer; I.P.Alimarin, [illegible] A.Belyayevaya, [illegible]: Separation of Zr by Ion Exchangers; [illegible], V.M. Byrkin: The Use of Complex Pyrazolylthiocarbamates in Radiochemistry. Kafedra neorganicheskoy khimii (Chair of Inorganic Chemistry): Yu.A.Sapozhnikov, Yu.Fujisawa, S.N.Kovba, G.P. Filatova, I.A.Terekhova: Tracers of Some Bivalent Metals; Yu.Kuyagina, O.[illegible]Zerkova: Tracing Compounds With Acids of Low-valence P; V.I. Spitsyn: The Influence of the Radioactive Radiation of Solids on Their Physico-chemical Properties; I.Yu.Mikhaylenko, V.I.Spitsyn: Isotope Exchange in the System $K_2SO_4 - SO_3$ at High Temperature. Kafedra khimicheskoy kinetiki (Chair of Chemical Kinetics): I.V.Berezin, V.D.Antonovskiy, [illegible]: Application of Tracers for [illegible] Determining the Velocity Constants of the Separation of Organo-Hydrogen Compounds. An.N.Nesmeyanov delivered a detailed lecture on the Methodology of Radiochemistry. Instruction at the chemical departments of universities.

Card 1/4

Card 2/4

Card 3/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

5(4)

AUTHORS: Antonovskiy, V. L., Berezin, I. V. SOV/20-127-1-33/65

TITLE: Determination of the Ratio of the Reaction Rate Constants When Tritium Atoms in n-Heptanes Are Torn off by the Methyl Radical (Opredeleniye otnosheniy konstant skorostey otryva metil'nym radikalom atomov tritiya n-geptanov)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 1, pp 124-126 (USSR)

ABSTRACT: As compared to the so very complicated reactions as are the oxidizing, chlorinating, sulfochlorinating processes (Refs 1-3) or as compared to the reaction rates in homogeneous series (Ref 4), the utilization of tritium offers the possibility of directly comparing the rate of hydrogen detachment by a free radical at a certain point of the compound. CH_3 radicals generated from acetyl peroxide were introduced into n-heptane, the jth CH-bond of which was marked with tritium. The methane thus formed was separated from the other gaseous (CO_2, C_2H_6) and liquid reaction products by traps cooled with liquid nitrogen. The specific activity of methane and of the marked

Card 1/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

heptane was measured by means of a counter. Table 1 shows the results obtained. The value of the reaction constant k_2^T with respect to the tritium detachment on the heptane 2-t was assumed as the unit. A part of the experiments made with heptane 2-t and 3-t was supervised by O. D. Mesinova. Figures 1, 2 show the linear dependence of the $\log \frac{I_{CH_4}}{I_{C_7H_{16}}}$ on the absolute temperature with respect to heptane 1-t, 2-t, and 3-t. The constant values for k_1^T/k_2^T prove the equivalence of all secondary C-H- (C-T- resp) bonds of heptane in the temperature range of from 10 to 220°; this is directly indicative of the uniform

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

Determination of the Ratio of the Reaction Rate Constants When Tritium Atoms in n-Heptanes Are Torn off by the Methyl Radical SOV/20-127-1-33/65

reactivity of all secondary C-H bonds of the n-paraffins. The mean constant isotope effect for the secondary CH-bonds of n-heptane is illustrated by the relation:

$$(k^H/k^T)_{sec} = 0.20e^{-3400/RT}$$

There are 2 figures, 1 table, and 6 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 20, 1959, by N. N. Semenov, Academician

SUBMITTED: March 11, 1959

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

81576
S/076/60/034/06/21/040
B015/B061

5.3200

AUTHORS: Antonovskiy, V. L., Berezin, I. V. (Moscow)

TITLE: The Use of Tritium for Determining the Relative Rate Constants of the Cleavage of Hydrogen Atoms of Organic Compounds. The Reactivity of the Carbon - Hydrogen Bonds of n-Heptane

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6, pp. 1286-1293

TEXT: In an introductory discussion, equations are derived for the determination of the dependence of the rate constants of hydrogen (tritium) cleavage to the element-hydrogen bond of a single, or different organic compounds. The results of the tests on the size of the relative rate constants of the cleavage of tritium atoms by methyl radicals for all types of n-heptane bonds, are also given. The production of methyl radicals took place through the thermal decomposition of acetyl peroxide in heptane (Fig. 1, ampule). The production technique of heptanols and bromphenols, marked with tritium (Table 1, properties), and the apparatus used for separating the reaction products and determining the specific

Card 1/1

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

81576

The Use of Tritium for Determining the Relative Rate Constants of the Cleavage of Hydrogen Atoms of Organic Compounds. The Reactivity of the Carbon - Hydrogen Bonds of n-Heptane

S/076/60/034/06/21/040
B015/B061

activity of methane and heptane (Fig. 2), are described. Measurements (Table 2) show that the by-reactions of the formation of methane can be neglected. The values of the rate constants of the reaction of the methyl radical with the C-T bond (calculated according to equation (10)) are given, as are the experimental values for the n-heptanes at 55° to 85°C (Table 3) in positions 1, 2, 3, and 4 substituted by tritium. O. B. Mesineva took part in some experiments. It was established that all secondary C-T bonds of n-heptane show practically the same reactivity in the temperature range 10-220°C (Table 4). The primary C-T bonds have, in the temperature range 55-85°C, a reactivity 10 to 12 times smaller than the secondary C-T bonds. $k^H/k^T = 0.20\ e^{3400/RT}$ was obtained for the hydrogen-tritium kinetic isotopic effect of the secondary bonds, which agrees with the corresponding value for cycloheptane (Ref. 26). A. N. Bashkirov, V. I. Vedeneyev, and V. V. Voyevodskiy are mentioned in the text. There are 4 figures, 4 tables, and 26 references: 8 Soviet, 15 American, 1 British, and 1 German.

4

Card 2/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

83903

11.1210
5.3200

S/020/60/134/003/017/020
B004/B067

AUTHORS: Antonovskiy, V. L., Berezin, I. V., and Shevel'kova, L. V.

TITLE: The Relative Reactivity of the C-H and C-T Bonds of n-Heptane, Benzene, Toluene, Ethylbenzene, and Cyclohexane in the Interaction With $CH_3\cdot$ in the Liquid Phase

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 3, pp. 621-624

TEXT: The authors determined the rate constants k of the reactions of the C-H and C-T bonds on the following assumptions: In a system consisting of two organic compounds A and B, A has the number r of types of reactive C-H bonds, the bond of type j being tagged with tritium. Compound B is not tagged and has p types of C-H bonds. The total number of C-H bonds is assumed to be n. In this system, free methyl radicals are produced by thermal decomposition of benzoyl peroxide at 55° or 85°C. Equation (1) is written down for the composition $[CH_4]/[CH_3T]$ of methane which was formed according to the reaction equation $RH(T) + CH_3 \longrightarrow R\cdot + CH_4(CH_3T)$.

Card 1/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

83903

The Relative Reactivity of the C-H and C-T Bonds of n-Heptane, Benzene, Toluene, Ethylbenzene, and Cyclohexane in the Interaction With $CH_3^{\cdot}$ in the Liquid Phase

S/020/60/134/003/017/020
B004/B067

The equation $I_A/I_M = k^H_{6A}/k^T_{jA} + (k^H_{6B}/k^T_{jA}).([B]/[A])$ (2) served for an experimental determination of the rate constant k, where I_A, I_M denote the activities of substance A and methane; $k^H_{6A} = \sum^{r} n_i k^H_i$; $k^H_{6B} = \sum^{p} n_1 k^H_1$. The authors determined (1) k^H_{6A}/k^T_{jA}, where $CH_3^{\cdot}$ was generated only in A; (2) k^H_{6B}/k^H_{6A} by generating $CH_3^{\cdot}$ in a mixture of A and B; (3) k^H_{6B}/k^T_{jA}, where a concentration ratio $[A] \ll [B]$ was chosen for a high activity of A. First, the authors carried out the reaction between non-tagged n-heptane, benzene, and toluene on the one hand, and tagged cyclohexane on the other. The values for the reaction of $n\text{-}C_7H_{14}$ with C_6H_{12} are given in Table 1. For saturated hydrocarbons $k^H_{hept}/k^H_{cyc.hex}$ is independent of the composition of the mixture. In the systems $C_6H_6 - C_6H_{12}$ and $C_6H_5.CH_3 - C_6H_{12}$ it was found that the quotients of k depended largely on the composition of the mixture (Figs. 1,2). Hence, a second experimental series was

Card 2/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

83903

The Relative Reactivity of the C-H and C-T Bonds of n-Heptane, Benzene, Toluene, Ethylbenzene, and Cyclohexane in the Interaction With $CH_3\cdot$ in the Liquid Phase

S/020/60/134/003/017/020
B004/B067

carried out to eliminate this specific effect of the aromatic cycle. $C_6H_5CH_3$ and $C_6H_5CH_2CH_3$ were tagged with tritium in their CH_3 group, dissolved in small concentrations (0.134 - 4.00 wt%) in non-tagged C_6H_{12}, and reacted with $CH_3\cdot$. Under these experimental conditions the relative rate constants for the tearing off of tritium did no longer depend on the composition (Tables 2,3). The following ratio was obtained for 85°C: $k^T_{hept} : k^T_{eth.benz.} : k^T_{tol} = 1 : 14.5 : 28$. Thus, the phenyl group has a strongly activating effect on the hydrogen atoms of the CH_3 group in toluene as well as in ethylbenzene. The high mobility of the primary hydrogen atoms in $C_6H_5C_2H_5$ might indicate a still unknown mechanism.

There are 2 figures, 3 tables, and 8 references: 5 Soviet and 3 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im.M.V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

Card 3/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

The Relative Reactivity of the C-H and C-T Bonds of n-Heptane, Benzene, Toluene, Ethylbenzene, and Cyclohexane in the Interaction With $CH_3^{\cdot}$ in the Liquid Phase

83903
S/020/60/134/003/017/020
B004/B067

PRESENTED: April 27, 1960, by N. N. Semenov, Academician

SUBMITTED: March 28, 1960

Card 4/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

84691

11.1210
5.3200

S/020/60/134/004/017/023
B004/B061

AUTHORS: Antonovskiy, V. L. and Berezin, I. V.

TITLE: Kinetic Isotopic Effects of Tritium in the Reaction of Hydrocarbons With Free Methyl Radicals in the Liquid Phase

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4, pp. 860-863

TEXT: The authors determined the intramolecular kinetic effects $i = k^H/k^T$ in the reaction of liquid hydrocarbons with free methyl radicals. The reaction equations are written down: $RH + CH_3^{\cdot} \xrightarrow{k^H} R^{\cdot} + CH_4$ (I) and $RT + CH_3^{\cdot} \xrightarrow{k^T} R^{\cdot} + CH_3T$ (II). Assuming n reactive CH bonds in the RH molecule, and a concentration ratio of $[RT] \ll [RH]$ the authors obtain for i the equation $i = I_{RH}/nI_M$ (1), where I_{RH} denotes the specific radioactivity of RH, I_M the specific radioactivity of the forming methane. Benzoyl peroxide served as a source for the methyl radicals; its decomposition in

Card 1/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

hydrocarbons tagged with tritium was carried out at 55 - 85°C. Table 1 gives data for $I_{C_6H_6}$, I_{CH_4}, and i at 85°C. Table 2 shows the values for benzene and toluene at 55, 70, and 85°C. The function $\log(k^H/k^T) = f(1/T)$ was found to be linear. Table 3 compares the values obtained for different hydrocarbons at 85°C. The ratio A^H/A^T of the factors of the exponential function, the difference $\Delta E = E^T - E^H$ of the activation energies, and i are given in Table 3:

Hydrocarbon	A^H/A^T	ΔE, kcal/mole	i
Benzene	0.66	1570±100	6.0
toluene	0.55	2200±100	12.1
cyclohexane	0.38	2700±100	17.2
cyclopentane	0.16	3500±350	22.8
cycloheptane	0.19	3430±250	23.5
n-heptane (sec. bonds)	0.20	3400±130	23.2

From the data found for the secondary bonds of n-heptane, cycloheptane,

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

84691

Kinetic Isotopic Effects of Tritium in the Reaction of Hydrocarbons With Free Methyl Radicals in the Liquid Phase

S/020/60/134/004/017/023
B004/B064

and cyclopentane the authors conclude that the kinetic isotopic effect of tritium in the reaction with $CH_3^{\cdot}$ for the unconjugated aliphatic secondary CH bonds is described by the relation $i = 0.18 \exp(3450/RT)$. In the case of cyclohexane a distinction is to be made between polar and equatorial bonds. Assuming that $i_{equ} = i_{sec} = 0.18 \exp(3450/RT)$ the following relation is found for i_{pol}: $i_{pol} = 0.48 \exp(2300/RT)$. The largely deviating values for benzene and toluene are due to the effect of the aromatic cycle. There are 3 tables and 10 references: 6 Soviet, 3 US, and 1 French.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: April 27, 1960 by N. N. Semenov, Academician

SUBMITTED: March 28, 1960

Card 3/3

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; MAKALETS, B.I.

Consecutive order in formation of products in the liquid phase oxidation of cumene. Dokl. AN SSSR 140 no.5:1070-1072 O '61. (MIRA 15:2)

1. Filial Nauchno-issledovatel'skogo instituta sinteticheskikh spirtov i organicheskikh produktov, g. Novokuybyshevsk. Predstavleno akademik N.N.Semenovym.

(Cumene)
(Oxidation)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; BEREZIN, I.V.; KAZANSKAYA, N.F.

Use of tritium for determining the relative constants of the rate of detachment of hydrogen atoms in organic compounds. Relative reactivity of carbon-hydrogen bonds of hydrocarbons in radical reactions. Izv.vys.ucheb.zav.; khim.i khim.tekh. 5 no.1:94-100 '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, kafedra khimicheskoy kinetiki.
(Hydrogen bonding) (Hydrocarbons) (Radicals (Chemistry))

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR: AT4028341 S/0000/63/000/000/0240/0248

AUTHOR: Antonovskiy, V. L.; Yemelin, Yu. D.; Sheyko, L. D.

TITLE: The kinetics of cumyl peroxide synthesis

SOURCE: Soveshchaniye po khimii perekisny*kh soyedineniy. Second, Moscow, 1961. Khimiya perekisny*kh soyedineniy (chemistry of peroxide compounds); Doklady* soveshchaniy. Moscow, Izd-vo AN SSSR, 1963, 240-248

TOPIC TAGS: cumyl, peroxide, peroxide synthesis, vulcanization, thermal stability, dimethylphenylcarbonol, cumene, hydroperoxide, self-oxidation

ABSTRACT: The behavior of cumyl peroxide has been recently studied in production processes of polymers and rubber vulcanization, and a number of advantages of this peroxide over others in use have been found. Its distinguishing property is the high thermal stability as well as the resistance of the peroxide in mechanical reactions, the effect of concentrated alkalis and diluted acids. The process of cumyl peroxide synthesis from dimethylphenylcarbonol and cumene hydroperoxide in a medium of acetic acid occurs at a satisfactory rate at room temperature in the presence of a catalyst, perchloric acid, in amount of 0.5-1 $\times 10^{-3}$ mol/ltr. The corresponding hydroperoxides were obtained in pure form by the self-oxidation of para-halogen-

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR: AT4028341

substituted isopropylbenzene. The composition of the hydroperoxides was reported by the dissociation to the corresponding para-halogeno-phenols. The speed of thermal decay of the again synthesized hydroperoxide in α-methylstyrene was studied in comparison with the hydroperoxides of isopropobenzene and n-nitro-isopropylbenzene. It is shown that the halides and the nitro-group in the para-position accelerate the decay of the hydroperoxides of the substituted isopropylbenzene in α-methylstyrene and according to the accelerating effect are located in this order: NO_2 > Cl > Br > I > H. Orig. art. has: 8 figures and 8 formulas.

ASSOCIATION: Novokuybyshevskiy filial nauchno-issledovatel'skogo instituta sinteticheskikh spirtov i organicheskikh produktov (Novokuibyshev Branch of the Scientific Research Institute of Synthetic Alcohols and Organic Products)

SUBMITTED: 13Dec63 DATE ACQ: 06Apr64 ENCL: 00

SUB CODE: CH NO.REF SOV: 004 OTHER: 018

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR: AT4028347 S/0000/63)000/000/0309/0311

AUTHOR: Antonovskiy, V. L.; Sheyko, L. D.

TITLE: On the manufacturing of tert-butyl hydroperoxide by the oxidation of isobutane in the liquid phase

SOURCE: Soveshchaniye po khimii perekisny*kh soyedineniy. Second, Moscow, 1961. Khimiya perekisny*kh soyedineniy (chemistry of peroxide compounds); Doklady* soveshchaniy. Moscow, Izd-vo AN SSSR, 1963, 309-311

TOPIC TAGS: hydroperoxide, tert-butyl, isobutane, liquid phase, polymerization, synthetic resins, tert-butyl alcohol

ABSTRACT: The high demand for tert-butyl hydroperoxide has resulted in many attempts to find the most effective synthesis method which would make it possible to obtain tert-butyl hydroperoxide in large quantities from easily accessible substances. The most perspective method of obtaining tert-butyl hydroperoxide is the oxidation of isobutane in a compressed state. The authors tested different reaction conditions and the possibility of realizing a continuous manufacturing diagram for the purpose of industrial production of tert-butyl hydroperoxide by isobutane oxidation in the liquid phase. Isobutane oxidation was conducted in a bubble reactor steel alloy.

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR: AT4028347

Oxidation products were analyzed by liquid gas chromatography. Industrial 95% isobutane separated from natural gases was used as a raw material. A diagram for the production of tert-butyl hydroperoxide by liquid phase oxidation is given. The breakdown of the process and results are presented in tables. The authors conclude that the production of tert-butyl hydroperoxide can be accomplished by a constant method. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Novokuybyshevskiy filial nauchno-issledovatel'skogo instituta sinteticheskikh spirtov i organicheskikh produktov (Novokuibyshev Branch of the Scientific Research Institute of Synthetic Alcohols and Organic Products)

SUBMITTED: 13Dec63 DATE ACQ: 06Apr64 ENCL: 00

SUB CODE: CH NO REF SOV: 006 OTHER: 011

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.I.; GARKOVIK, N.L.; Prinimali uchastiye ANDRIANOVA, L.A.

Production of tert-butyl-peroxyacetate and tert-butyl-peroxybenzoate. Khim. prom. no.2:87-91 F '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACCESSION NR AP4042250

AUTHOR: [illegible]

TITLE: Synthesis of 1-oxy-1'-hydroperoxydicyclohexyl peroxide

SOURCE: Khimicheskaya promy*shlennost', [illegible]

TOPIC TAGS: cyclohexanone peroxide, cyclohexanone peroxide [illegible]

ABSTRACT: The peroxides of cyclohexanone [illegible]

[illegible] peroxide, however, [illegible] of the title product, available under [illegible]

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

L 12959-65

ACCESSION NR: AP4042253

Various percentages of mineral acids, the amount of peroxide required, etc. were studied and results tabulated. Optimal conditions for the synthesis of the title product were found as follows: a 1:1 ratio of cyclohexanone to 30% aqueous hydrogen peroxide [illegible] duration of reaction [illegible] min. The [illegible] hexane [illegible] [illegible] used for obtaining the commercial [illegible] A cyclohexanone peroxide with dibutylphthalate [illegible] presented. Orig. art. has: 7 formulas, 2 figures and 3 tables.

ASSOCIATION: None

SUBMITTED: [illegible]

ENCL: [illegible]

SUB CODE: [illegible], OC

NO REF SOV: [illegible]

OTHER: [illegible]

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L., kand.khimich. nauk

Problems of safety during work with organic peroxides. Zhur. VKHO 9 no. 3:309-314 '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

L 23041-65 EPF(c)/EPF(n)-2/EWG(j) EWA(h)/EWP(j)/EWT(m)/EWA 1) Pc-4 Pr-4/
Pu-4/Peb GG/RM
ACCESSION NR: AP5002209 S/0204/64/004/006/0863/0868

AUTHOR: Antonovskiy, V. L., Kuznetsov, I. A., Mekhryushev, Yu. Ya.

TITLE: The effect of ionizing radiation on the kinetics of accumulation hydroperoxide during oxidation of cumene at elevated temperatures. The effect of impurities in cumene

SOURCE: Neftekhimiya, v. 4, no. 6, 1964, 863-868

TOPIC TAGS: cumene impurity, cumene oxidation, cumene hydroperoxide, ionizing radiation, high temperature oxidation, chain branching

ABSTRACT: The effect of X-ray and impurities on the air oxidation of cumene at 60-120C was studied to establish the kinetics of chain branching and chain degeneration and to investigate the feasibility of irradiation techniques for commercial production of cumene hydroperoxide. Commercial cumene, produced by alkylation of benzene, was purified either with sulfuric acid, alkali and water, or with alkali and water over silicagel. Doses of [illegible] ev/ml. sec. at 100 and higher temperatures accelerated the consumption of α-naphthylamine in the highly purified specimen, reduced the induction period, and increased the accumulation of cumene hydroperoxide in the initial oxidation period, with a calculated yield of 1.5 free radicals per 100 ev. With increasing hydroperoxide concentration the radiation

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

L 23041-65
ACCESSION NR: AP5002209

effect decreased, and hydroperoxide was the only source of free radicals when a critical concentration was reached. This concentration was higher at lower temperatures, and at this critical concentration purely thermal oxidation and radiation-induced thermal oxidation produced similar results. At 60C, the reaction proceeds only under radiation. Contaminants in cumene purified by alkali treatment on conversion, such as thiophene or olefins, significantly affect the reaction rate. At [illegible] rates achieved with pure cumene and the rates of thermal oxidation of commercial cumene. Impurities are converted under radiation into inhibitory compounds, and the amount of impurities becomes the rate determining variable rather than radiation dose. Sulfuric acid-treated cumene should be used in commercial applications [illegible] the method, and irradiation should be used only for the initial period of [illegible]. Orig. art. has 2 tables, [illegible] figures and 4 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut syntheticheskikh spirtov i organicheskikh produktov, Filial gor. Novokuybyshevsk (Synthetic alcohols and organic products scientific research institute, Novokuybyshevsk branch)

SUBMITTED: 23Dec63 ENCL: 00 SUB CODE: OC

NO REF SOV: 007 OTHER: 006

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

L 18378-65 EWG(j)/EWT(m)/EPF(c)/EPR/EWP(j)/EWP(t)/EWP(b) Pc-4/Pr-4/Ps-4
IJP(c)/AFETR/APGC(g)/AEDC(b) JD
ACCESSION NR: AP5003113 S/0063/64/009/003/0308/0314

AUTHOR: Antonovskiy, [illegible] (Candidate of chemical sciences)

TITLE: Problems of safety in working with organic peroxides

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 9, no. 3, 1964, 309-314

TOPIC TAGS: organic oxide, working condition, peroxide, combustion kinetics

Abstract: Problems relating to danger in working with peroxides and the corresponding fire and explosion hazard properties of the most widely used organic peroxides are discussed. The fire hazard of peroxides derives from their ability to burn and their capacity [illegible] to inflame or even explode due to the self-acceleration of the exothermal process of their degradation. Liquid peroxides have relatively low flash points. The danger of explosion of peroxides arises from the possibility of violent decomposition within a confined space as the result of heating or mechanical action. Many pure organic peroxides (dry peroxides of [illegible] cyclohexane, 2-bis-(ter-butyl-peroxy)-butane, peroxides of acetone, acetal peroxide, etc.) are sensitive to mechanical factors. [illegible] even a [illegible] temperature decompose very slowly with the release of gaseous products and there-

Card 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

L 18379-65

ACCESSION NR: AP5003113

fore their container must be provided with openings for gas escape. Spilled liquid peroxide is absorbed by [illegible]. The [illegible] aggressive [illegible] of organic peroxides makes them a [illegible] health hazard [illegible] peroxides are not strong poisons. [illegible] are more [illegible] the solids or pastes. [illegible]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: GC, GO

NO REF SOV: 002 OTHER: 046 JPRS

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; POLADYAN, V.E.

Iodometric and ferrometric determination of cumene peroxide.
Zhur. anal. khim. 19 no.2:248-253 '64. (MIRA 17:9)

1. Novikuybyshevskiy filial nauchno-issledovatel'skogo instituta sinteticheskikh spirtov i organicheskikh produktov.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.I.; PAGIOVA, Z.S.

Determination of cyclohexanone peroxides by polarography. Zhur. anal. khim. 19 no.6:754-756 '64. (MIRA 18:3)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov, filial v Novokuybyshevske.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

TERENT'YEV, V.A.; ANTONOVSKIY, V.A.

Infrared spectra and hydrogen bonding of cyclohexanone peroxides. Zhur. ob. khim. 32 no. 5:1518-1522 My '62. (MIRA 1[illegible])

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

TERENT'YEV, V.A.; ANTONOVSKIY, V.L.

Formation of peroxides in the reaction of hydroperoxides with aldehydes and carboxylic acids. Zhur. ob. khim. 34 no.12: 4117 D '64 (MIRA 18:1)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov, Novokuybyshevsk.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; MAKALETS, B.I.; RYABINSKAYA, N.B.; [illegible], L.V.

Comparative tests of reactors for liquid phase [illegible] of hydrocarbons. Zhur. prikl. khim. 32 no.11:[illegible] N'64 (MIRA 18:1)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; FROLOVA, Z.S.

Polarographic study of cyclohexanone peroxides. Zhur. ob. khim. 35 no.6:954-957 Je '65. (MIRA 18:6)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov o organicheskikh produktov, filial v Novokuybyshevske.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; YEMELIN, Yu.D.; KYSHEVA, N.I.; FILIPPOVA, G.F.

Synthesis of cumenyl peroxide. Khim. prom. 40 no.9:657-659 S '64. (MIRA 17:11)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.I.; TERENT'YEV, V.A.

Behavior of ketone peroxides in solution. Part 1. Zhur. fiz. khim. 39 no.3:621-627 Mr '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov., Novokuybyshevsk.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

EMANUEL', Nikolay Markovich; DENISOV, Yevgeniy Tirofeyevich; MAYZUS, Zinaida Kushelevna. Prinimali uchastie: ANTONOVSKIY, V.L.; BLYUMBERG, E.A.; VASIL'YEV, R.F.; GAGARINA, A.B.; GOL'DBERG, V.M.; ZAIKOV, G.Ye.; DORIKOV, Yu.D.; OBUKHOVA, L.K.; TSEPALOV, V.F.; SHLYAPINTOKH, V.Ya.; SKIBIDA, I.P., red.

[Oxidation chain reactions of hydrocarbons in the liquid phase] TSepnye reaktsii okisleniia uglevodorodov v zhidkoi faze. Moskva, Nauka, 1965. 374 p. (MIRA 18:8)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; DENISOV, Ye.T.; KUZNETSOV, I.A.; MEKHRYUSHEV, Yu.Ya.; SOLNTSEVA, L.V.

Mechanism of the liquid-phase oxidation of cumene studied by the inhibition method. Part 1: Chain initiation. Kin. i kat. 6 no.4: 607-610 Jl-Ag '65. (MIRA 18:9)

1. Novokuybyshevskiy filial Nauchno-issledovatel'skogo instituta sinteticheskikh spirtov i organicheskikh produktov.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; YEMELIN, Yu.D.

Synthesis of di-tert-butyl peroxide. Zhur. org. khim. 1 no.8: 1391-1392 Ag '65. (MIRA 18:11)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov, filial v gorode Novokuybyshevske.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ANTONOVSKIY, V.L.; DENISOV, Ye.T.; SOLNTSEVA, L.V.

Inhibition method in studying the mechanism of liquid-phase oxidation of cumene. Part 2: Mechanism of degenerate chain branching. Kin.i kat. 6 no.5:815-819 S-O '65.

(MIRA 18:11)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov, Novokuybyshevskiy filial.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

L 16788-66 EWT(m)/EWP(j) RM

ACC NR: AP6002509 (A) SOURCE CODE: UR/0286/65/000/023/0017/0017

AUTHORS: Antonovskiy, V. L.; Yemelin, Yu. D.

ORG: none

TITLE: A method for obtaining organic peroxides. Class 12, No. 176581 [announced by Novokuybyshev Branch of the Scientific Research Institute of Synthetic Alcohols (Novokuybyshevskiy filial nauchno-issledovatel'skogo instituta sinteticheskikh spirtov)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 17

TOPIC TAGS: organic compound, peroxide, olefin, hydrocarbon, isopentene, pinene, styrol, butyl, sulfuric acid

ABSTRACT: This Author Certificate presents a method for obtaining organic peroxides from olefins and tributyl hydroperoxide in the presence of catalytic quantities of aqueous solution of sulfuric acid at 20--50C. To increase the assortment of raw materials, aliphatic olefinic hydrocarbons (for instance, isopentene), alkyl aromatic olefinic hydrocarbons (for instance, alpha-methyl-

Card 1/2

UDC: 661.729

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

L 16788-66
ACC NR: AP6002509

styrole), and alicyclic olefinic hydrocarbons (for instance, alpha-pinene) are used as olefins.

SUB CODE: 07/ SUBM DATE: 07Jan65

Card 2/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

ACC NR: AR6017239 SOURCE CODE: UR/0058/65/000/012/D037/D037

46
B

AUTHOR: Antonovskiy, V. L.; Terent'yev, V. A.

TITLE: Infrared spectra and hydrogen bond of peroxides of cyclohexanone

SOURCE: Ref. zh. Fizika, Abs. 12D312

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 185-196

TOPIC TAGS: ir spectrum, hydrogen bonding, peroxide, cyclohexanone, peroxy organic acid

ABSTRACT: The authors investigated the infrared spectra of three peroxides of cyclohexanone: 1,1'-dioxy-dicyclohexyl peroxide (I), 1-oxy-1'-dihydroperoxy-dicyclohexyl peroxide (II), and 1,1'-dihydroperoxy-dicyclohexyl peroxide (III). It is shown that the 825 cm^{-1} band is characteristic of the vibrations of the O-O group in peroxides of cyclohexanone. It is shown that the C-O-O-H group forms in II and in III a firm intramolecular hydrogen bond with oxygen of the peroxide group. The C-O-H group of in dilute solutions of I and II also form an intramolecular hydrogen bond, which is replaced in concentrated solutions by a stronger intermolecular hydrogen bond. [Translation of abstract]

SUB CODE: 20,07

Card 1/1

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"

"APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6

Automation of Cold [Metal] Stamping Production SOV/5580

COVERAGE: The collection contains reports delivered at the Kiyev Scientific and Technical Conference by workers of machine and instrument plants, design organizations, and scientific research and educational institutes. The Conference was sponsored by the Kiyevskoye oblastnoye pravleniye Nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (Kiyev Oblast Administration of the Scientific and Technical Society of the Machine-Building Industry) and by the Ukrainskoye respublikanskoye pravleniye Nauchno-tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (Ukrainian Republican Administration of the Scientific and Technical Society of the Instrument-Making Industry). The purpose of the Conference was to discuss the achievements and practical experience (especially at the Gorkiy Automobile Plant, the VEF Plant, and leading factories) in the automation of stamping production. The Conference also served to acquaint a wide number of machine and instrument builders with the present state of automation in these fields and with the prospects for its further development. Papers dealing with experience in the design and operation of automatic devices, presses, and automatic production lines used in stamping production were discussed. No personalities are mentioned. References accompany most of the articles.

TABLE OF CONTENTS:

Foreword 3

Card 2/5

PEAGE I ROCK EXPLOITATION SOV/5580

Golubev, T.N., Doctor of Technical Sciences, Professor, and I.P. Tartakovskiy, Candidate of Technical Sciences, Docent, eds.

Avtomatizatsiya kholodnoshtampovochnogo proizvodstva (Automation of Cold [Metal] Stamping Production) Moscow, Mashgiz, 1961. 242 p. 6,000 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR Institut tekhnicheskoy informatsii. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Kiyevskoye oblastnoye pravleniye. Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Ukrainskoye respublikanskoye pravleniye.

Ed.: N.S. Borzin; Tech. Ed.: N.S. Gorbostaypol'skaya; Chief Ed.: (Southern Dept. Mashgiz): V.K. Serdyuk, Engineer.

PURPOSE: This collection of articles is intended for workers at machine and instrument plants and scientific research and design institutes.

Card 1/5

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000101810013-6"