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PHASE I BOOK EXPLOITATION SOV/5159

Golenko, D.I., V.Ya. Kaplanskiy, V.P. Smiryagin, and Yu.M. Shivalin

Datchik sluchaynykh chisel na elektronnoy vychislitel'noy mashine "Strela" (Pickup of Random Numbers on the Electronic Computer "Strela") Moscow, Vychislitel'nyy tsentr AN SSSR, 1960. 29 p. 750 copies printed.

Sponsoring Agency: Vychislitel'nyy tsentr AN SSSR
Resp. Ed.: V.P. Smiryagin; Ed.: M.V. Yakovkin; Tech. Ed.: N.S. Popova.

PURPOSE: The booklet is intended for technical personnel concerned with the development of computers.

COVERAGE: The booklet describes a pickup of randon numbers constructed at the Vychislitel'nyy tsentr AN SSSR (Computing Center AS USSR). The device is one of the first operating dummies and has already solved a number of specific problems. Its basic principles of design, problems of bench testing, and certain mathematical criteria used for checking the dummy operation are briefly reviewed. No personalities are mentioned. There are 3 references, all Soviet

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Pickup of Random Numbers (Cont.) SOV/5159

(including 1 translation).

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1. Advantages and Effectiveness of Forming Random Numbers by Physical Simulation 4

2. Short Description of the Components and Units of a Pickup of Random Numbers. Block Diagram. Elementary Diagrams 8

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Bibliography 29

AVAILABLE: Library of Congress (TK7889.S7S55)

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Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

ZAK, L.A.; MILCHENKO, T.I.; SMIRYAGIN, V.P.

Short description of the machine BESM-II; basic parameters. Mat kut kozl MTA 5 no.1/2:171-178 '60. (EEAI 10:1)

1. Computing Center of the Academy of the U.S.S.R., Moscow.
(Russia--Calculating machines)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

GOLENKO, D.I.; SMIRYAGIN, V.P.

A source of random numbers which are equally distributed in integral[0,1]. In Russian. Mat kut kozl MTA 5 no.3:241-253 '60. (EEAI 10:8)

1. Vychislitel'nyi Tsentr Akademii nauk SSSR.
(Numbers, Theory of) (Integrals) (Probabilities)
(Electronic calculating machines)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

ZAK, L.A.; KULESHOV, N.P.; PETROV, I.A.; SMIRYAGIN, V.P., otv. red.; ORLOVA, I.A., red.; POPOVA, N.S., tekhn.red.

[Punched card information input and output systems of the BESM-2 computer] Sistema ustroistv vvoda i vyvoda na perfokartakh vychislitel'noi mashiny BESM-2. Moskva, Vychislitel'nyi tsentr AN SSSR, 1961. 26 p. (MIRA 15:2)
(Electronic calculating machines--Input-output equipment)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

CHIBISOV, V. [illegible]; SMIRYAGIN, [illegible], otv. red; [illegible], [illegible], red.

[Derivation of square roots using the BESM-2 computer] Operatsiia iz izvlecheniia kvadratnogo kornia na mashine BESM-2. Moskva, Vychislitel'nyi tsentr AN SSSR, 1962. 24 p. (Soobshcheniia po vychislitel'noi tekhnike, no.1) (MIRA 1[illegible]5)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

TORGOV, Yu.I.; SMIRYAGIN, V.P., otv. red.; ORLOVA, I.A., red.; POPOVA, N.S., tekhn. red.

[Arithmetic unit based on dynamic elements] Arifmeticheskoe ustroistvo na dinamicheskikh elementakh. Moskva, Vychislitel'nyi tsentr AN SSSR, 1963. 84 p. (MIRA 16:4)
(Electronic digital computers)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

ACCESSION NR: AT3012139 S/2967/63/000/000/0212/0221

AUTHORS: Golenko, D. I.; Smiryagin, V. P.; Kaplanskiy, V. Ya.; Shivalin, Yu. M.

TITLE: Random number data unit for computer "Strela"

SOURCE: Voprosy* vy*chislitel'noy matematiki i vy*chislitel'noy tekhniki. Moscow, 1963, 212-221

TOPIC TAGS: data unit, random number, noise generator, pulse shaper, germanium diode, statistical criterion, weighted sum

ABSTRACT: The details of a data unit for random numbers consisting of 12 noise generators, 12 switches, 12 pulse shapers, 12 triggers, and 12 output inverters have been presented. In octal system, the random number cell is assigned the number 7757. Each electronic element is discussed in detail. The noise generator consists of a germanium diode noise element and 3 cascade amplifiers. The pulse shapers are used with triggers to ensure a uniform position distribution for the 0 and 1 digits on the triggers. To evaluate the quality of the data unit and to establish some reliability criterion for its operation, the randomness of the numbers is studied by the series method, which uses a statistical criterion to

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ACCESSION NR: AT3012139

determine the degree of association entering the random succession in the formation of numbers. Next, the uniformity of the random number distribution is determined by the Pearson criteria which uses χ distribution as the weighted sum of the square of deviation between ν and np_i, or

$$\chi = \sum_{i=1}^{l} \frac{(\nu_i - np_i)^2}{np_i},$$

where ν_i is the quantity of selected objects in the i-th interval and np_i - mathematical expectation of ν_i in a hypothetical theoretical distribution. It is shown that the data unit satisfies both criteria and materially reduces the time for solving problems in statistics. Orig. art. has: 10 equations and 6 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 22Oct63 ENCL: 00

SUB CODE: CP NO REF SOV: 002 OTHER: 000

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

BELYAKOV-BODIN, V.I.; KOLESNIKOV, M.A.; TORGOV, Yu.I.; SHAFRANSKIY, V.V.; SMIRYAGIN, V.P., otv. red.; ORLOVA, I.A., red.

[Supervision of the operation of electronic computers] Kontrol' raboty elektronnykh vychislitel'nykh mashin. Moskva, 1965. 48 p. (MIRA 18:8)

1. Akademiya nauk SSSR. Vychislitel'nyy tsentr.

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BASHKATOV, A.F., kand.tekhn.nauk; BASHIROV, R.M., inzh.; SMIRYAGIN, Ye.S., inzh.

New method for determining the tightness of piston pairs. Trakt. i sel'khozmash. 32 no.2:9-11 F '62. (MIRA 15:2)

1. Bashkirskiy sel'skokhozyaystvennyy institut (for Bashirov).
2. Noginskiy zavod toplivnoy apparatury (for Smiryagin).
(Automobiles—Fuel systems)
(Tractors—Fuel systems)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

S/081/62/000/006/035/117
B102/B101

AUTHORS: Shaykind, S. P., Solov'yeva, S. V., Smiryagina, S. A.

TITLE: Polarographic determination of uranium and the use of its catalytic effect upon the nitrate-ion wave for these purposes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 132, abstract 6D104 (Tr. Leningr. tekhnol. in-ta im. Lensoveta, no. 55, 1961, 172)

TEXT: The possibility of a polarographic U determination on chloride, nitrate, and carbonate backgrounds is considered, and a method is proposed to determine trace amounts of U. It is based on the catalytic action of U upon the polarographic wave of NO_3^-. One drop of KNO_3 solution ($1 \cdot 10^{-3}$ g/ml) and 2 drops of 0.5% gelatin solution are added to the solution to be analyzed which is 0.1 N with respect to KCl and 0.01 N with respect to HCl and contains $\geqslant 2.5 \cdot 10^{-6}$ g/ml U. Then, N_2 (or H_2) is passed through, and the polarogram is taken. [Abstracter's note: Complete translation.]

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L 22061-66 EWT(1)/EWT(m)/EPF(n)-2/T/EWP(t) IJP(c) JD/JW/JG/GG
ACC NR: AP6009642 SOURCE CODE: UR/0181/66/008/003/0680/0683

AUTHOR: Golubeva, L. A.; Pchelinskaya, S. N.; Smiryagina, S. A.; Shishelov, A. A.
ORG: Leningrad Polytechnic Institute im. M. I. Kalinin (Leningradskiy politekhnicheskiy institut)

TITLE: On the influence of x-irradiation on certain properties of lithium-fluoride single crystals

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 680-683

TOPIC TAGS: lithium fluoride, single crystal, x irradiation, color center, crystal defect, dielectric loss, crystal lattice vacancy

ABSTRACT: The purpose of the investigation was to establish a connection between the change in the volumes of the cells of LiF crystals and the occurrence in these crystals of processes which change the dielectric losses. To this end, single crystals of LiF were exposed to x-rays at doses ranging from 2.1 to 86.7 microroentgen and their dielectric constant and capacitance measured with an ac bridge (60--20 kcs). The results showed that the crystal lattice constant increased even with the smallest x-ray dose, indicating that irradiation produces not only the appearance of color centers but also of lattice defects which increase the losses.

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ACC NR: AP6009642

The accompanying decrease in density (measured by a flotation method) can be shown to be due only to a change in the lattice volume. The increase in the lattice constant and the change in the loss angle due to the irradiation are briefly discussed from the point of view of formation of vacancies as a result of ionization. The decrease in conductivity leads to a decrease in the dielectric losses. The authors thank B. P. Konstantinov for help with the work. Orig. art. has: 3 figures, 1 formula, and 1 table.

SUB CODE: 20/ SUBM DATE: 05Jul65/ ORIG REF: 002/ OTH REF: 007

Card 2/2 MJS

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L 64180-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b)/EWA(c) JD

ACCESSION NR: AP5021549 UR/0286/65/000/013/0013/0013
548.55 : 678.029.73

25
B

AUTHOR: Smirnyy, V. V.; Volynets, F. K.; Kozlov, S. I.; Gubenko, L. P.; Mitrofanov, P. I.; Okhapin, A. A.

TITLE: A method for gas-flame annealing of single crystals. Class 12, No. 172287

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 13

TOPIC TAGS: single crystal growing, crystal dislocation, annealing

ABSTRACT: This Author's Certificate introduces a method for gas-flame annealing of single crystals grown from powder in an oxyhydrogen flame and rotated without turning of the crystallization burner. Residual thermal stresses are reduced by heating the crystal through tubes which open directly into the flame. 2. A modification of this method in which the dislocation concentration is reduced by connecting the tubes alternately beginning from the top during growth of the crystal.

ASSOCIATION: none

SUBMITTED: 14Aug64 ENCL: 00 SUB CODE: SS,MM

NO REF SOV: 000 OTHER: 000

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Frantisek, inz.

Measurement of flow and volume of flown through substance. Automatizace 7 no. 4: Supplement: Kurs prakticke automatizace 120 Ap '64.

1. Chemoprojekt, Prague.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Frantisek, inz.

Pressure measurement. Automatizace 7 no. 3: Supplement: Kurs prakticke automatizace 111-112 Mr '64.

1. Chemoprojekt, Prague.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

[illegible]

"Fertility of the common trout.", p. 79, (SRANIK, Vol. 26, #1/2, Feb. 1953, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, August 1953, Uncl.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, J.

Public water supply and water conduits in Czechoslovakia during 1957.
p. 425.

VODNI HOSPODARSTVI. (Ministerstvo energetiky a vodniho hospodarstvi a Vedecka technicka spolecnost pro vodni hospodarstvi) Praha, Czechoslovakia.
No. 10, Oct. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11, November 1959.

Uncl.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Josef, inz.

Development of rates for water supply and sewerage use. Vodni hosp no.9:384-387 S '62.

1. Ministerstvo zemedelstvi, lesniho a vodniho hospodarstvi.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Josef, ing.

"Legal provisions for technicians" by [dr.] V. Hanzlik. Reviewed by Josef Smisek. Vodni hosp 13 no.5:191 '63.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

POKORNY, Jan; KARVANEK, Milan; SMISEK, Josef; CEPICKA, Jaroslav

Determining the iodine number of fatty acids by hypohalogenites in alkaline medium. Sbor potrav VSChT Vol.5, pt.2:93-119 '61 [publ. '62].

1. Institut fur Chemie und Untersuchung von Lebensmitteln, Fakultat fur Lebensmitteltechnologie, Chemisch-Technologische Hochschule, Prag.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Josef, inz.

"Statistical yearbook of the Czechoslovak Socialist Republic 1962." Reviewed by Josef Smisek. Vodni hosp 13 no.4:139 '63.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Milan

Conductometric determination of ammonia. Cesk. biol. 4 no.3: Mar 55.

1. Ustav pro fysiologii rostlin biolgicke fakulty university Karlovy, Praha.
(AMMONIA, determination,
conductometric technic)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Milan; CERNY, Slavoj; MINAROVA, Jindra

Structural inhomogeneity of charcoal activated by gaseous agents. Chem prum 12 no.5:237-239 My '62.

1. Vyzkumny ustav vzduchotechniky, Praha. 2. Nynejsi pracoviste: Ustav fyzikalni chemie, Ceskoslovenska akademie ved, Praha (for Smisek and Cerny).

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

CERNY, Slavoj; SMISEK, Milan

Mercury porosimetry. Chem listy 56 no.11:1296-1301 N '62.

1. Ustav fyzikalni chemie, Ceskoslovenska akademie ved, Praha.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, Milan; CERNY, Slavoj; MINAROVA, Jindra

Semiautomatic device for measurement of vapor adsorption isotherms on volumetrical apparatus. Chem listy 57 no.6: 638-643 Je '63.

1. Ustav fysikalni chemie, Ceskoslovenska akademie ved, Praha a Vyzkumny ustav vzduchotechniky, Praha.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISHEK, M. [Smisek, M.]; CHERNY, S. [Cerny, S.]; MINARZHOVA, I. [Minarova, J.]

Semiautomatic measurement device attached to a volumetric adsorption apparatus. Zhur. fiz. khim. 35 no. 4:939-941 Ap '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut vozdukhotekhniki, Chekhoslovakiya. (Adsorption)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

CZECHOSLOVAKIA

SMISEK, M.

PROCHAZKA, M; CERNY, J.V; SMISEK, M

1. Institute of Organic Chemistry, Karlova University, Prague - (for 1); 2. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague - (for 1)

Prague, Collection of Czechoslovak Chemical Communications, No 3, March 1966, pp 1315-1322

"Oxabicyclo(3,3,0)octanes."

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIDEK, V.

"Organization of work in high-speed mining at the Ostrava-Karvina mines."
Uhli, Praha, Vol 3, No 3, Mar. 1953, p. 68

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

[illegible]: [illegible], S.

The use of photocells in [illegible]. [illegible]
([illegible], Vol. [illegible], no. 1, Jan. 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. [illegible], no. 12, Dec. 1957. Incl.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK. V,

An experimental method of gravity loading. Tr. from the English. p. 67. (Uhli, Vol. 7, no. 2, Feb. 1957, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957. Uncl.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISK, V.

The mining of coal by boring.

P. 249. (UHLI.) (Praha, Czechoslovakia) Vol. 7, No. 7, July 1957

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMISEK, V.

Ploughability of coal seams in the Ostrava-Karvina coal basin and its relation to the hardness of coal. p.223.

UHLI (Ministerstvo paliv) Praha, Czechoslovakia. Vol. 1, no. 7, July 1959

Monthly list of East European Accessions (EEAI), Vol. 9, no. 1, Jan. 1960

Uncl.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

PANOV, V.O.; SMISHLYAYEV, L.M. [Smyshliaiev, L.M.]; BABADZHANOV, B.E. [Babadzhanov, B.IE.]

Attachment for cleaning the spindles of spinning machine press rollers. Leh. prom. no.2:35-36 Ap-Je'64 (MIRA 17:8)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

[illegible], A.V.; [illegible]; [illegible], I.N.; [illegible]

Cyclization of geranial and nerol ethers, Izv. AN SSSR, Ser. Khim. no.6:1068-1070 '65. (MIRA [illegible])

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

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SMIT, J 12

L 19670-65 EWT(m)/EPF(c)/EPF(n)-2/EPR Pr-4/Ps-4/Pu-4 JSD

ACCESSION NR: AP4045667 P/0046/64/009/07-/0575/0585

AUTHOR: Adamski, L.; Arkuszewski, J. (Arkushevski, Ya.); Bednarz, R. (Bednarzh, R.); Jozefowicz, E. T. (Yuzefovich, E. T.); Jozefowicz, K. (Yuzefovich, K.); Kaczmarek, W. (Kachmarek, V.); Kulikowska, T. (Kulikovska, T.); Malewski, S. (Malevski, S.); Mika, J. (Mika, Ya.); Szechter, A. (Shekhter, A.); Weiss Z. (Vayss, Z.); Bryhn-Ingebrigtsen, K. (Bry*n-Ingebrigt*sen, K.); Smit, J. (Smit, I.); Stamm'ler, R. J. J. (Stamm'ler, R. I. I.); Jockovic, M. (Iotskovich, M.); Pop-Jordanov, J. (Pop-Iordanov, I.); Takac, S. (Takach, M.)

B

TITLE: Microscopic neutron flux distributions in unit cells of critical assemblies of the NPY Project

19

SOURCE: Nukleonika, v. 9, no. 7-8, 1964, 575-585

TOPIC TAGS: neutron distribution, reactor physics, intracell neutron distribution, unit cell, critical reactor, NPY project

ABSTRACT: This article, which is one of the first official reports

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ACCESSION NR: AP4045667

of the NPY Project, contains a preliminary study of intracell neutron distributions in three critical assemblies operating in Norway, Poland, and Yugoslavia. The NPY lattices that were studied and the experimental techniques used in three zero-power reactors (NORA, ANNA, and RB) are discussed and experimental and theoretical results are given in tabular form (refer to the Enclosures). The computational methods used in Norway and applied to the NPY lattices involved the use of two integral transport codes (available for use on the Ferranti Mercury computer) developed by the Netherlands-Norwegian K-7 Project at Kjeller-K-7 THERMOS and K-7 TRANSPO; cross-sections used in these codes are given in tables. Two analytical methods were used in Poland: the first, used for NORA and ANNA, made use of a one-group Amouyal-Benoist approach applied to a multilayer system; the second used the Laguerre polynomial expansion for distributions in the moderator. Two computational methods were employed in Yugoslavia: a standard one-velocity P_3 method with isotropic flux return at the outer boundary and an improved analytical neutron thermalization method developed in Yugoslavia. The experimental and theoretical results obtained for NORA lattices show that the experimental values

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ACCESSION NR: AP4045667 3

of the disadvantage factors lie within the range of theoretical values obtained by different methods. Orig. art. has: 3 figures and 6 tables.

ASSOCIATION: Institute of Atomic Energy, Kjeller, Norway; Institute of Nuclear Research, Swierk, Poland; Boris Kidrich Institute of Nuclear Sciences, Vincha, Yugoslavia

SUBMITTED: 00 ENCL: 04 SUB CODE: NP

NO REF SOV: 002 OTHER: 020

Card 3/7

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, Krunoslav, inz. (Zagreb)

Relative orientation by the Gruber method. Geod list 17 no.7/9:251-253 Jl-S '63.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

14-57-6-12417

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6, p 99 (USSR)

AUTHOR: Ordeval, A. P., Kubota, Dzh., Smit, Kh. M.

TITLE: Principal Soil Types and Their Relation to Climate (Glavnyye tipy pochv i ikh svyaz' s klimatom)

PERIODICAL: V sb: Merzlotnyye yavleniya v gruntakh, Moscow, Izd-vo in. lit., 1955, pp 9-20

ABSTRACT: Climatic change from north to south produces change in the soils. Low temperature and slight precipitation cause the formation of tundra soils. Climatic influence is basically of a physical nature. Both physical and chemical factors contribute to the formation of podzol soils. Chernozem is developed in the semiarid and semihumid temperate climates. In deserts, climatic influence exhibits itself mainly in the physical destruction of original materials. Latosols (formerly known as laterites, red laterites, or red clays,

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14-57-6-12417

Principal Soil Types (Cont.)

etc.) develop in the humid and semihumid tropical climates. They reflect profound chemical and biological climatic influences. Latosols are very thick and are usually red in color. They are strongly leached out, are rich in clay, poor in dust particles, friable and permeable. In contrast to podzol soils, latosols do not develop clays in the subsoil, but a gradual increase in the amount of clay can be observed in them from the surface downward. The article includes soil sections, a world soil map and bibliography of 13 titles.

Card 2/2 M. G.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, Krunoslav, inz. (Zagreb)

Influence of the unequal density of diapositives on the precision of the level curve setting by steroinstruments. Geod list 16 no.4/6:158-166 Ap-Je '62.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

S/124/61/000/008/005/042
A001/A101

16.8000 (1329,1131,1013)

AUTHOR: Smit, O.

TITLE: Basic principles of automatic control

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 8, 1961, 13, abstract 8A122 (Mezhdunar. federatsiya po avtomat. upr. I Mezhdunar. kongress po avtomat. upr. Moscow, AN SSSR, 1960, 20 pp, ill.)

TEXT: The author considers the problems of synthesis of automatic control systems with allowance for fluctuation noises of the system elements arising due to fluctuations of their parameters. The component of the control error depends on the properties of elements, as well as on the distribution of the transfer function of a disconnected system over the control contour. The optimum distribution of the transfer function is determined by minimizing the root-mean-square error. A lot of attention is paid to transfer function distribution between direct coupling and feedback. It is shown that the amplification factor of a disconnected circuit depends on the noise level, and only elements in the feedback impose restrictions on this factor. The notion of efficiency ("vygodnost'") is introduced for each system element, which is determined by the ratio of its

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Basic principles of automatic control

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A001/A101

amplification factor to fluctuation spectrum. The expediency of increasing the quality of one or another element of the system is investigated. By synthesis of a system, the feasibility of its physical realization is taken into account. Moreover, the problem is considered on determining the optimum law for controlling a system operating with a maximum intensity. It is pointed out that these systems are more effective than equivalent linear systems, since they provide the possibility of obtaining the better quality per unit of weight.

I. Maksimova

[Abstracter's note: Complete translation]

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

15-57-10-14449

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 179 (USSR)

AUTHOR: Smit, P. V.

TITLE: Contemporary Knowledge of the Origin and Accumulation of Petroleum (Sovremennyye svedeniya o proiskhozhdenii i nakoplenii nefti)

PERIODICAL: V sb.: 4-y Mezhdunar. neft. kongress, 1. Moscow, Gostoptekhizdat, 1956, pp 351-368

ABSTRACT: Bibliographic entry

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, R. A.

9281* Semiconductors Sensitive in the Infra-Red Range of the Spectrum. Poluprovodniki chuvstvitel'nye v infrakrasnoi oblasti spektra. (Russian.) R. A. Smit. *Uspekhi Fizicheskikh Nauk*, v. 58, no. 3, Mar. 1956, p. 433-486.

Semiconductors of the PbS group; thin layers and other polycrystalline formations; single crystals. Comparison of PbS with Ge and Si. Theory of photoelectric phenomena. Tables, graphs, diagrams. 105 ref.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, S.; STAVRIC, S.; MILETIC, B.; DRAKULIC, M.; ZAJEC, Lj.

Correlation between the photorestorableness of the lethal effect and the biochemical effects of UV irradiation. Bul sc Youg 7 no.1/2:14 F-Ap '62.

1. Institut "R. Boskovic," Zagreb.

*

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, Slavica; MILETIC, Branimir; DRAKULIC, Marija; STAVRIC, Stanislava; BRDAR, Branko

Photorestoration of the biosynthesis of nucleic acids in irradiated bacteria. Biol glas 15 no. 4: 207-214 '62.

1. Institut" Ruder Boskovic", Radiobioloski odjel, Zagreb.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, S.; MILETIC, B.; GIGOV, A.; BOGDANOVIC, M.; DANON, J.; JANKOVIC, M.M.; CUPINA, T.; MILOSEVIC, R.; JANKOVIC, M-a; BOGOJEVIC, R.; STAVRIC, S.; DRAKULIC, M.; MATONICKIN, I.; PAVLETIC, Z.

Review of periodicals; biology. Bul sc Youg 9 no.4/5:138-139 Ag-O '64.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V. A.

Syntheses with acrylonitrile. XXI. Synthesis and properties of 1-indolepropionic acids. A. P. Terent'ev, A. N. Kost, and V. A. Smit. *J. Gen. Chem. U.S.S.R.* 25, 1905-10 (1955)(Engl. translation).—See *C.A.* 50, 4910*f*.

B. M. R.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

Smit, V.A.

Synthesis with acrylonitrile. XXI. Synthesis and properties of 1-indolepropionic acids. A. P. Terent'ev, A. N. Kost, and V. A. Smit (State Univ., Moscow). *Zhur. Obshchei Khim.* 25, 1659-60(1955); cf. *C.A.* 47, 12237*h*.—It was shown that the 2-cyanoethyl group can be cleaved from indole ring if it is located in 1-position; the mol. is stable if the group is in the 3-position. To a stirred mixt. of 11.7 g. indole, 10.6 g. CH_2:CHCN (Ia), and 50 ml. C_6H_6 was added 0.6 g. powd. KOH (exothermic reaction) and after 1-2 hrs. the mixt. was filtered and distd. yielding 95% *1-indolepropionitrile*, b_1 168-80°, m. 47°. Refluxed with 10% KOH 3 hrs. it gave 95% *1-indolepropionic acid* (I), m. 85-6° (crude), m. 90-1° (from aq. EtOH-HCl). Heating 11.7 g. indole, 8 g. ethylene cyanohydrin, and 6 g. solid KOH in 100 ml. 95% EtOH in autoclave 6 hrs. at 190-200° gave 62% I; NaOH gave a 41% yield; the best yield was 90% attained with KOH in 6 hrs. at 220°. Similar reaction using $EtOCH_2CH_2CN$ gave a 47% yield in 6 hrs. at 200°; in refluxing C_6H_6 only a 12% yield was obtained. The autoclave reaction as above of indole and $Me_2NCH_2CH_2CN$ with solid KOH in 95% EtOH gave 53% I; only 15% was obtained in refluxing xylene. Stirring 3.9 g. 2-methylindole, 3.4 g. Ia, 0.2 g. powd. KOH and 15 ml. C_6H_6 1 hr. at room temp. and 1 hr. at reflux gave 77% *2-methyl-1-indolepropionitrile*, m. 83°, b_2 170-80°; hydrolysis with KOH gave *2-methyl-1-indolepropionic acid*, m. 111-12°. Similar reaction of 34 g. 3-indolepropionitrile (II) and 21.2 g. Ia with powd. KOH in C_6H_6 gave 97% *1,3-indolebispropionitrile*, (III), m. 88-9° (crude), m. 96-7° (from EtOH); hydrolysis with 10% KOH gave the free *dicarboxylic acid*, m. 146° (from aq. EtOH). Similar condensation of 2-methyl-3-indolepropionitrile with Ia gave 83% *2-methyl-1,3-indolebispropionitrile*, m. 144-5° (from EtOH), which gave 100% of the *dicarboxylic acid*, m. 128° (from H_2O). Indole (5.8 g.), 10 g. EtO_2CCH:CH_2, and 0.3 g. powd. KOH stirred 1 hr. at room temp. in 25 ml. C_6H_6, then refluxed 2 hrs. gave 30% *Et 1-indolepropionate*, b_2 135-50°, which gave the free acid, m. 83-6°; this cleaves with superheated steam to indole. Similarly, 1,3-indolebispropionic acid with superheated steam at 280° gave 3-indolepropionic acid. Heating III with a little hydroquinone under N to 250° gave 92% II, m. 64°; refluxing I with 50% KOH 8 hrs. in NH_3 stream gave no indole and nearly all acid was recovered. However similar treatment of 1-indolepropionitrile gave about 10% indole and 80% I. XXII. New method of synthesis of pyrrolines. A. P. Terent'ev, A. N. Kost, and A. M. Berlin. *Ibid.* 1613-16.—To 91.2 g. iso-Pr_2CO and EtONa (0.6 g. Na in 10 ml. EtOH), heated on a steam bath, was added 21.2 g. CH_2:CHCN and, heated 4.5 hrs. longer, the mixt. after neutralization with H_2SO_4 gave 46% *γ-methyl-γ-isobutylvaleronitrile*, b_4 106-8°, b_7 116-18°, n_D^{20} 1.4132, d_{20} 0.9222; this (15 g.) in 300 ml. 3% H_2O, 3 ml. 6N NaOH and EtOH to form a clear soln. was heated 6 hrs. at 50-60°, neutralized and evapd. yielding 89% *γ-methyl-γ-isobutylvaleramide* (I), m. 90° (from C_6H_6). Similarly cyanoethylation of isobutyrophenone gave *γ-methyl-γ-benzoylvaleronitrile*, $b_{4.4}$ 159-61°, n_D^{20} 1.5200, d_{20} 1.0469, which hydrolyzed as above to 93.5% *γ-methyl-γ-benzoylvaleramide* (II), m. 145° (from H_2O). To 23 g. NaOH in 300 ml. H_2O at −3° was added 5.5 ml. Br followed by 14.2 g. I and after 2 hrs. on a steam bath and addn. of NaOH there was isolated 70% *3,3-dimethyl-2-isopropyl-2-pyrroline*, b_{14} 157-8°, n_D^{20} 1.4471, d_{20} 0.8340, which causes headaches on inhalation and eye irritation; *picrate*, decomp. 189°; *styphnate*, m. 184°; *flavianate*, an oil; *N-benzenesulfonyl deriv.*, oil; *N-phenylcarbamide deriv.*, $C_{15}H_{19}N_3O$, m. 203°. Similarly II gave 58% *3,3-dimethyl-2-phenylpyrroline*, b_{12} 119-21°, n_D^{20} 1.5440, d_{20} 0.9983; *picrate*, m. 160°; *N-phenylcarbamide*, m. 230°.

G. M. Kosolapoff

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

TERENT'YEV, A.P.; KOST, A.N.; SMIT, V.A.

Synthesis with the aid of acrylic acid nitrile. Part 25. Cyanoethylation of indole. Zhur.ob.khim. 26 no.2:557-559 F '56. (MLRA 9:8)

1. Moskovskiy gosudarstvennyy universitet.
(Cyanoethylation) (Indole) (Acrylonitrile)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.

20-2-27/60

AUTHORS: Nazarov, I. N., Member of the Academy, Yanovskaya, L. A., Gusev, B. P., Yufit, S. S., Gunar, V. I., Smit, V. A.

TITLE: The Synthesis of Methylheptenone and Methylheptadienone (Sintez metilgeptenona i metilgeptadiyenona)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp. 331-334 (USSR)

ABSTRACT: The two substances mentioned in the title of the paper under review are of importance for the synthesis of the natural scenting substances of the isoprenoid type. The authors of the present paper investigated the production of the former on basis dimethylvinylcarbinol or isoprene with the aid of three different methods :(1) by condensation of prenylhalogenids by aceto-ethylacetate; (2) by interaction between dimethylvinylcarbinol and the same ether; and (3) by pyrolysis of the same ether of dimethylvinylcarbinol. As was shown in a previously published scientific paper originating in the same laboratory, there are produced at influence by hydrogen halides on dimethylvinylcarbinol corresponding prenylhalides

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The Synthesis of Methylheptenone and Methylheptadienone

with high yields. They can be easily condensed by sodium-aceto-ethylacetate and at a subsequent saponification they yield methylheptenone. The second method of synthesis takes place at a temperature of 160 - 170° and yields 60 - 70 % methylheptenone in addition to an almost theoretical amount of ethanol and CO_2. The reaction must be carried out under pressure or by using high-boiling Vaseline oil. The remainder after distillation is aceto-ethylacetate of dimethylvinylcarbinol. At 160 - 170° this is subjected to a pyrolysis, and here methylheptenone and CO_2 are produced. This supports the reactions mechanism as illustrated in the paper under review. The pyrolysis of pure dimethylvinylcarbinol-acetoacetate was investigated further. It is produced with a yield of 90 %, when diketone affects dimethylvinylcarbinol in presence of small amounts of pyridine, best at a temperature between 145 and 160°. During this process, methylheptenone is produced (65 - 70 %). The pyrolysis has also a lateral direction and leads to isoprene, acetone and CO_2. Sometimes this lateral direction predominates. The authors of the present paper studied in detail the production methods of methylheptadienone both by interaction between dimethylethinylcar-

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

The Synthesis of Methylheptenone and Methylheptadienone 20-2-27/60

ASSOCIATION: Institute oF Organic Chemistry imeni N. D. Zelinskiy, AS USSR
(Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: January 7, 1957

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

5(3)

AUTHORS: Smit, V. A., Kucherov, V. F. (Moscow) SOV/74-28-3-4/6

TITLE: Cyclization Reactions of Isoprenoid Compounds (Reaktsii tsiklizatsii izoprenoidnykh soyedineniy)

PERIODICAL: Uspekhi khimii, 1959, Vol 28, Nr 3, pp 272-311 (USSR)

ABSTRACT: In the present paper the attempt is made to systematize the abundant material on the cyclization of isoprenoid compounds. The present paper covers all publications issued until the middle of 1958 in the field of transformations of acyclic compounds into cyclic ones in the series of the mono-, hexa-, di- and triterpenes. Furthermore the cyclization of 1,5-diene systems of the non-isoprenoid type as well as the data available on mechanism and stereochemistry of the cyclization of isoprenoids were discussed more thoroughly. It can be seen from the material available that there are three kinds of cyclization of isoprenoid systems (Ref 1): A -cyclization, where compounds of the ionone series are formed; B -cyclization, where p-menthane derivatives are formed and C -cyclization, where compounds of the allo-cyclo-geraniol series are formed. The direction of the reaction proceeding mainly depends on the nature of the compound and also on the kind of the bonds

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which take part in the reaction. Further, cyclizations of several monoterpenes are discussed the transformations of which were investigated in all three possible directions; in this class the cyclization of ketones (pseudoionone and its analogues) are best investigated because of their accessibility. The cyclization according to A is especially characteristic and essential of the ketones where ionone and its analogues are formed. Whereas the p-menthane cyclization is unusual for ketones and was discovered quite recently only, this kind of cyclization is more characteristic of monoterpene aldehydes than the ionone cyclization and the only one possible for aldehydes similar to citronellal. The ionone cyclization is less characteristic of isoprenoid alcohols than of aldehydes. The cyclization of isoprenoid acids can proceed in all 3 directions and was very thoroughly investigated. The cyclization of alicyclic terpene-hydrocarbons has been known for a long time already (Refs 153,154). Later, (Refs 155,156) it was proved that this reaction has a general character. In consequence of this reaction a hydrogen carbon mixture is formed which contains a considerable amount of β and α-isomers with an impurity of γ-isomers (Refs 157,158). This reaction

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proceeds prevalently according to the ionone scheme which distinguishes it from cases previously investigated. The formation of bi- and polycyclic systems from alicyclic terpenes proceeds so readily as the formation of monocyclic systems in the monoterpene series. The analysis of the products formed is, however, made difficult because of the formation of a large number of possible stereoisomers. It is comparatively easy to determine in the cyclization products the ratio of the isomers according to the positions of the double bond. Far more difficult is the separation of individual steric isomers from the mixture of stereoisomeric α, β- and allo-products and the determination of their structure. For this reason individual stereoisomers were separated only in a few cases until recently. The affinity of the carbon skeleton of the steroids with cyclic triterpenes and the resemblance of their steric structures have raised the interest of the scientists for some time already and suggested a common way of their biosynthesis in nature. The fact that these compounds, at least partly, can be constructed from elementary carbon groups of isoprene, allowed to seek a connection with acyclic isoprenoids for which such a structure of the molecules is common. Still in 1926 the assumption was expressed (Refs 198,242) that

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squalene might be a genetic precursor of cholesterol and over this also of other steroid compounds. The correctness of this hypothesis was confirmed experimentally only quite recently. The theoretical consideration of this problem induced Ružička and collaborators (Refs 11, 12) to establish a biogenetic formula for isoprenoids. Deriving from some well founded presuppositions for the cyclization mechanism of squalene it became possible on the basis of this formula to explain the formation of all known triptenes from squalene. Ružička's interpretations of the ways and cyclization mechanism of squalene into polycyclic systems have, however, not yet been confirmed, but there is a number of experimental data which verify their correctness. The number of papers dealing with the investigation of the mechanism and the steric orientation of the cyclization becomes larger and larger. Further investigations in this field will doubtlessly lead to an experimental foundation of the biogenetic formula of the isoprenoids. The knowledge of the conditions and the mechanism of the cyclization of isoprenoid systems will extend the synthetic possibilities and will facilitate numerous natural compounds. There are 3 tables and 282 references, 27 of which are Soviet.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

5(3) SOV/20-124-5-33/62

AUTHORS: Smit, V. A., Semenovskiy, A. V., Medvedeva, V. M., Kucherov, V. F.

TITLE: On the Cyclization Character of the Pseudo-ionon (O kharaktere tsiklizatsii psevdoionona). A New Method of Producing the α-Ionon (Novyy metod polucheniya α-ionona)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 5, pp 1080-1082 (USSR)

ABSTRACT: As has been proved in numerous publications (Refs 1-8), the pseudo-ionon is converted to a mixture of α- and β-ionon under the action of various acids. The ratio between the resulting α- and β-isomers depends on the nature of the cyclizing agent. For β-ionon concentrated sulphuric acid in ether or in acetic acid is the specific cyclizing agent whereas this role is played for α-ionon by 60 % sulphuric or phosphoric acid, preferably by boron trifluoride. The statements made in publications seem to indicate that the α-isomer forms the original reaction product almost in all cases independently of the nature of the agent (Refs 9-13) and can be converted to the stabler conjugated system of the β-isomer under the action of acid agents. Thus, the specific activity of various cyclizing agent is restricted

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On the Cyclization Character of the Pseudo-ionon. A New Method of Producing the α-Ionon SOV/20-124-5-33/62

to their greater or smaller ability of isomerizing the initially formed α isomer. In order to give experimental proof of this assumption the authors have studied the cyclization of the pseudo-ionon by 100 % H_2SO_4 between +60° and -60°. Nitromethane or nitropropane were used as solvents. The destillate obtained in a vacuum was analyzed with the aid of its ultraviolet spectrum (obtained with the assistance of T. M. Fadeyeva)(Table 2). It is apparent from the results (Table 1) that the ratio between the α- and β-ionons formed is entirely determined by the cyclization conditions, namely, the residence time, temperature, and the amount of H_2SO_4. This shows clearly that the primary process in the cyclization of the pseudo-ionon is the formation of the α-ionon. Depending on the conditions of the reaction this is more or less converted by isomerization to form the β-ionon. Thus, the reactions whereby these isomers are formed are sequential rather than parallel reactions. The specific character of the cyclizing agent is restricted to the degree of its isomerizing activity. The method described in the article makes possible a convenient preparation of both ionons and may prove

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

On the Cyclization Character of the Pseudo-ionon. SOV/20-124-5-33/62
A New Method of Producing the α-Ionon

valuable in the production of α-ionon. There are 2 tables and 15 references, 1 of which is Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: October 30, 1958, by B. A. Kazanskiy, Academician

SUBMITTED: October 24, 1958

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V. A., Cand Chem Sci — (diss) "Study of the structural and spatial alignment in the cyclization of isoprene compounds," Moscow, 1960, 17 pp, 180 cop. (Inst. of Organic Chemistry im Zelinskiy, AS USSR) (KL, 44-60, 128)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.; SEMENOVSKIY, A.V.; KUCHEROV, V.F.

Regularities and the cyclization mechanism of isoprenoids. Report No. 2: Cyclization of cis-and trans-geranylacetones. Izv. AN SSSR.Otd. khim. nauk no.12:2193-2200 D '60. (MIRA 13:12)

1. Institut organicheskoy khimii im.N.D.Zelinskogo AN SSSR.
(Undecadienone) (Cyclization)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SEMENOVSKIY, A.V.; SMIT, V.A.; KUCHEROV, V.F.

Mechanism of the cyclization of pseudoionone. Dokl.AN SSSR 132 no.5:1107-1110 Je '60. (MIRA 13:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR. Predstavleno akademikom B.A.Kazanskim.
(Pseudoionone) (Cyclization)

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SMIT, I. A., SEMENOVSK, A. V., KUCHEROV, V. F. (USSR)

"The Structural and Spatial Orientation of Cyclization Reaction of Isoprenoid Compounds."

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

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RUDENKO, B.A.; KUCHEROV, V.F.; SMIT, V.A.; SEMENOVSKIY, A.V.

Gas-liquid chromatography of isoprenoid compounds. Izv. AN SSSR Otd.khim.nauk no.2:236-243 F '62. (MIRA 15:2)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Isoprenoids)
(Gas chromatography)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.; SEMENOVSKIY, A.V.; KUCHEROV, V.F.

Cyclization of isoprenoid compounds. Report No.5: Low temperature cyclization geraniol acetate. Izv.AN SSSR.Otd.khim.-nauk no.3:470-476 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Geraniol) (Cyclization)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.; SEMENOVSKIY, A.V.; KUCHEROV, V.F.

Cyclization if isoprenoid compounds. Report No.6: Conversions of α- and β-cyclogeranic acids under the effect of sulfuric acid. Izv.AN SSSR.Otd.khim.nauk no.3:477-484 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Cyclohexenecarboxylic acid) (Lactones)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.; SEMENOVSKIY, A.V.; VLAD, P.F.; KUCHEROV, V.F.

Cyclization of isoprenoid compounds. Report No.4: Low temperature cyclization of geranic acid and its ester. Izv. AN SSSR Otd.khim.nauk no.2:312-317 F '62. (MIRA 15:2)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Geranic acid)
(Cyclization)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SEMENOVSKIY, A.V.; SMIT, V.A.; KUCHEROV, V.F.

Configuration of -lactones formed during cyclization of geranylacetic acid. Izv.AN SSSR.Otd.khim.nauk no.3:558-560 Mr '63. (MIRA 16:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Lactones) (Cyclohexenecarboxylic acid)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.; SEMENOVSKIY, A.V.; KUCHEROV, V.F.

Cyclization of isoprenoid compounds. Report No.7: Low-temperature cyclization of dihydro-α-, dihydro-β-, and dihydro-γ-ionones. Izv. AN SSSR. Ser.khim. no.9:1601-1607 S '63. (MIRA 16:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Ionone) (Cyclization)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.; SEMENOVSKIY, A.V.; KUCHEROV, V.F.

Dependence of the steric course of isoprenoid cyclization reaction on the configuration of 6,7-double bond. Izv. AN SSSR. Ser.khim. no.9:1702 S '63. (MIRA 16:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Isoprenoids) (Cyclization) (Double bonds)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMIT, V.A.; SEMENOVSKIY, A.V.; RUDENKO, B.A.; KUCHEROV, V.F.

Cyclization of isoprenoid compounds. Report No. 8: Mechanism of the stereospecific cyclization of geranylacetone. Izv. AN SSSR Ser.khim. no.10:1782-1789 O '63. (MIRA 17:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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KUCHEROV, V. F.; SEMENOVSKIY, A. V.; SMIT, V. A.

"A new route for the stereospecific cyclisation of isoprenoids."

Report presented for the 3rd Intl. Symposium on the Chemistry of Natural Products (IUPAC), Kyoto, Japan, 12-18 April 1964.

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SEMENOVSKIY, A.V.; SMIT, V.A.; KUCHEROV, V.F.

Cyclization of isoprenoid compounds. Report No.9: Stereospecific cyclization of geranylacetic acid, its methyl ester and monocyclic analogs. Izv. AN SSSR. Ser.khim. no.3:504-512 Mr '64. (MIRA 17:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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SMIT, V.A.; SEMENOVSKIY, A.V.; CHERNOVA, T.N.; KUCHEROV, V.F.

Cyclization of isoprenoid compounds. Report No.10: Dependence of the structural course of cyclization reaction of isoprenoids on the configuration of 6,7-double bond. Izv. AN SSSR. Ser. khim. no.7:1229-1236 '65. (MIRA 18:7)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SEMENOVSKIY, A.V.; SMIT, V.A.; KUCHEROV, V.F.

Cyclization of isoprenoid compounds. Report No.11: Cyclization of isomeric farnesenic esters and their monocyclic analogs. Izv. AN SSSR Ser. khim. no.8:1424-1433 '65. (MIRA 18:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

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SMIT, V.A.; [illegible], A.V.; [illegible]NSKAYA, [illegible]; [illegible], S.L.; [illegible], V.[illegible].

Nonenzymatic stereospecific cyclization of isoprenoids. Pokl. AN SSSR 160 no.4:849-85[illegible] [illegible] '65. (MIRA 18:2)

1. Submitted [illegible] 28, [illegible].

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMUTANNIKOVA, A.I.

"A Comparative Ecologic-physiological Investigation of the Medick Under the Conditions of the North-west of the U.S.S.R.
Paper submitted for the Int'l Botanical Congress, Montreal, Canada, 19-29 Aug 1959.

Komarov Botanical Institute, Academy of Sciences, U.S.S.R., Leningrad.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMITENSKIY, N.V.

A-4

USSR/General Division -Congresses. Sessions. Conferences.

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 95.

Author : N.V. Smitenskiy
Inst : All Union Academy of Agricultural Sciences imeni Lenin.

Title : Expanded Plenary Session of the Section on Fertilizers.

Orig Pub : Agrobiologiya, 1956, No 2, 150-151.

Abst : A plenary session of the fertilizer section of the All-Union Academy of Agricultural Sciences imeni Lenin was held at the end of 1956. About 300 delegates took part in the session. A number of reports on the utilization of and experimentation with mixtures of organo-mineral fertilizers (I.I. Samoylov, A.A. Avakyan, P.A. Vlasyuk, I.P. Mamchenkov, and others) were heard. Data were cited on the work done at individual kolkhozes in the utilization of organo-mineral fertilizers. In the resolution which was adopted it was recommended that organo-

Card 1/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

USSR/General Division - Congresses. Sessions. Conferences. A-4

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 95.

-mineral mixtures for various farm crops be widely utilized; that manure, humus, and peat be utilized as organic fertilizers; that the work for the preparation of composts and mixtures, and their introduction in to the soil be mechanized. Accounts of the work done by the scientific-research institutes in 1955 and the plans for scientific-research work in 1956 were heard.

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

[illegible], J.

Organization of the production of seeds and seedlings at the county seed-production center. p. 32 (Rolnicke Hlasy Vol. 11, no. 4, Apr. 1957 Praha)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMITKA, S., inz.

Seminar on waste waters. Vodni hosp 14 no. 1:7 '64.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

SMITKA, Stanislav, inz.

Purity of streams in the East Bohemia Region. Vodni hosp 13 no.9:353-354 '63.

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Smitka, V.

Technological progress in construction during the first Five-Year Plan. p. 81. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 2, no. 3, Mar. 1954.

Source: FEAL LC Vol. 5, No. 10 Oct. 1956

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001651710010-9

Smitka, V.

Use of steel pipe for bridge span trusses. (To be contd.) p. 122. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 2, no. 4, April 1954.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

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SMITKA, V.

Timbers for monolithic concrete constructions. p. 155. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 4, no. 7, Apr. 1954.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

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Proceedings and resolution of the National Conference of Activists in Construction Engineering held March 7-8, 1955. p. 133.

Construction of a drawbridge in Brest. p. 159.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955, Uncl.

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Klimes, J. Remarkable reinforced-concrete bridge construction carried out by Czechoslovak Railroads. (Tobe Contd.) p. 195.
INZANYRSKE STAVBY, Praha, Vol. 3, no. 5, May 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

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Establishment of the Czechoslovak Scientific and Technological Society for Building Construction. p.309

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Vol. 3, no. 8, Aug. 1955

East European Accessions List Vol. 5 No. 1 Jan. 1956

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Activities of the Czechoslovak Scientific Society for Civil Engineering of the Czechoslovak Academy of Sciences. p. 46. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 4, no. 1, Jan. 1956

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

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Smitka, V.

The State Plan for Development of the National Economy in Czechoslovakia for 1956. p. 53. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 4, no. 2, Feb. 1956.

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The International Conference onWinter Concreting in Copenhagen. p. 292. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 4, no. 6, June 1956.

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INZENYRSKE STAVBY.
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Praha, Czechoslovakia

So: East European Accession, Vol. 6, No. 3, March 1957

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SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

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The National Conference on the Economical Construction of Monolithic Concrete Structures. p. 388.

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SMITKA, V.

Making investment building and the building industry more profitable.

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SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

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Monthly List of East European Accessions (EEAI) LC Vol. 8, No. 5 May 1959, Unclass.

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