"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, O.S. (Ryazan')

Pathological anatomy of congenital toxoplasmosis. Arkh. pat. 27 no.5:48-52 '65. (MIRA 18:5)

1. Kafedra patologicheskoy anatomii (zav. - prof. V.K.Beletskiy) Ryazanskogo meditsinskogo instituta imeni Pavlova, kafedra infektsionnykh bolezney (zav. - prof. L.K.Korovitskiy) Odesskogo meditsinskogo instituta imeni Pirogova i 1-ya gorodskaya Odesskaya infektsionnaya bol'nitsa (glavnyy vrach L.T.Zhidovlenko).

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, P., mayor.

Field radio switchboard for 14 directions. Voen. sviaz. 16 no.5: 41-44 My '58. (MIRA 11:5)

(Radio, Shortwave)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

124-57-2-2569

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 148 (USSR)

AUTHORS: Korsakevich, N. I., Ofengenden, R. G., Kalina, P. N.

TITLE: Measuring Equipment for the Static Recording of the Stressed State of Articles (Izmeritel'nyye ustroystva dlya staticheskoy registratsii napryazhennosti detaley)

PERIODICAL: Nauch. tr. In-ta mashinoved. i s.-kh. mekhan. AN UkrSSR. 1955, Vol 5, pp 51-61

ABSTRACT: The analysis of the results of an experimental determination of the stressed state of any machine part over a sufficient prolonged period of time concludes in the sorting out of a large number of measured quantities according to their magnitudes and in the determination of the statistical distribution of the quantities that characterize the operating conditions of the part. The paper describes the operating principle of an electronic device for the automatic determination of the extremal values of the measured quantities. The input consists of an electric voltage which characterizes the measured parameter. The device automatically segregates the input voltages into six sub-ranges, which are equipped to transmit a signal to the

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124-57-2-2569

Measuring Equipment for the Static Recording of the Stressed State (cont.)

computing link, if an extremal value of the quantity will occur in the given sub-range. The computers of each sub-range count the number of values and upon completion of a test immediately provide an account of the number of the extremal values contained in the given sub-range. An example is adduced, showing the analysis of a generic curve and the determination of the maximal and minimal values thereof. The equipment described includes electromechanical computers capable of utilizing impulses lasting longer than 1/25 sec. It is possible, however, that computers be used which are capable of utilizing impulses lasting 1/200 sec and even less. A brief description is given of equipment having an analogous purpose, developed at the Institut stroitel'noy mekhaniki AN UkrSSR (Institute of Structural Mechanics, Academy of Sciences, Ukrainian SSR).

1. Recording devices--Performance 2. Stress analysis N. P. Rayevskiy

Card 2/2

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, R.

"Specializa ion in the animal production as a means to achieve a higher labor productivity." P. 124

VESTNIK. Praha, Czechoslovakia; Vol. 6, No.3, 1959

Monthly List of East European Accession Index (EEAI), Library of Congress, Vol. 8, No. 7, July, 1959

Unclas

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, T.

Algology in the Czechoslovak Socialist Republic. Ukr. bot. zhur. 20 no.4:114-117 '63. (MIRA 17:4)

1. Charles University, Prague.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KHROMOV, B.M. (Leningrad); KOZLOVA, A.V.; KALINA, V.I.; ZADGENIDZE, G.A.; FILIPPOVA, V.A.

Book reviews. Med. rad. 10 no.11:84-91 N '65.

(MIRA 19:1)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V. K.

Cand Med Sci - (diss) "Effect of general roentgen radiation on biocolloids and on the functional activity of the thyroid gland." Khar'kov, 1961. 13 pp; (Ministry of Public Health Ukrainian SSR, Khar'kov State Med Inst); 200 copies;price not given; (KL, 7-61 sup, 259)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V.K.

Change in the secretory activity of the thyroid gland following whole-body X-ray irradiation. Radiobiologiia 5 no.4:525-527 '65. (MIRA 18:9)

1. Kiyevskiy institut usovershenstvovaniya vrachey.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V.

"A Review of G. Gunning's article 'Tonsilectomy and Poliomyelitis'", Vest. Oto-rino-laringol., No. 1, 1948.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V.

"Review of E. I. Pulaski's and Ch. S. Mathews' article 'Uses of Streptomycin'," Vest. Oto-rino-laringol, No 1, 1949.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

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KALINA, V.

"Review of E. Fowler's and E. Seligman's Article 'Streptomycin;'" Vest. Oto-rino-laringol. No 1, 1949.

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KALINA, V.K.

Volumetric automatic dispenser for radioctive liquids. Med. rad. 9 no.6:51-54 Je '64. (MIRA 18:2)

1. Kafedra meditsinskoy radiologii (zav.- prof. N.F. Lipkan) Kiyevskogo instituta usovershenstvovaniya vrachey (rektor - dotsent M.N. Umovist).

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V. O.

33591. Materialy K Voprosu O Prioritete I Rolt Otechestvennykh Otolaringologov V Razrabotke Khirurgicheskikh Metodov Lecheniya Zabolevaniy Ukha, Nosa I Gorla. Vestnik Otorinolaringologii, 1949, No. 5, c. 3-16. Bibliogr: (Ukazatel' Literatury Po Khirurgii Nosa I Gorla). (Ukazatel' Literatury Po Zhirurgii Ukha), c. 13-16

SO: Letopis'nykh Statey, Vol. 45, Moskva, 1949

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V. O.

Contemporary treatment of otogenic cerebral abscesses. Vest. otorinolar. 12:4, July-Aug. 50. p. 76-83

1. Moscow.

CLML 19, 5, Nov., 1950

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

PLATONOVA, Ye.P.; KALINA, V.O.

Headache in acute, chronic paranasal sinusitis. Uchen. zapiski vtor. moskov. med. Inst. Stalina Vol 2:114-119 1951. (CIML 21:4)

1. Candidate Medical Sciences for Platonova. 2. Department of Nervous Diseases (Director--Prof. A.M. Grinshtteyn, Active Member of the Academy of Medical Sciences USSR) and Clinic for Diseases of the Ear, Nose, and Throat (Director--Prof. B.S. Preobrashenskiy).

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V. O.

USSR/Medicine - Encephalitis Nov/Dec 53

"Nonpurulent Encephalitis of Aural Origin," V. O. Kalina, Cand Med Sci, Clinic of Nose, Throat, and Ear Disease, 2nd Moscow Med Inst im I. V. Stalin

Vest Otorinolaring, No 6, pp 35-40

Describes clinical observations of otogenic encephalitis during 1940-1950. Ascribes the prevalence of nonpurulent conditions to the use of antibiotics and sulfa drugs in the treatment of otitis media and related conditions. Asserts that otogenic encephalitis is a mere stage of an inflammatory and infectious process in the

272T25

brain tissues, which, under certain unfavorable conditions, may become purulent. Names the condition of the central nervous system as an important factor in the development of purulent conditions.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V.O., kandidat meditsinskikh nauk; PREOBRAZHENSKIY, B.S., professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, direktor.

Otogenous sinus thrombosis with symptoms of cerebral abscess. Vest.oto-rin. 15 no.4:29-33 Jl-Ag '53. (MLRA 6:9)

1. Klinika bolezney ukha, gorla i nosa II Moskovskogo meditsinskogo instituta im. I.V.Stalina. 2. Akademiya meditsinskikh nauk SSSR (for Preobrazhenskiy).
(Thrombosis) (Brain--Abscess)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V.O., kandidat meditsinskikh nauk

Otogenous meningitis with symptoms of cerebral abscess. Vest. oto-rin. 16 no.2:53-57 Mr-Ap '54. (MLRA 7:6)

1. Iz kliniki bolezney ukha, gorla i nosa (dir. chlen Akademii meditsinskikh nauk SSSR prof. V.S.Preobrazhenskiy) II Moskovskogo meditsinskogo instituta imeni I.V.Stalina.

(MENINGITIS, differential diagnosis,
*brain abscess, otogenous menignitis)
(BRAIN, abscess,
*differ. diag. from otogenous meningitis)
(ABSCESS,
*brain, differ. diag. from otogenous meningitis)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALIN, V. O.

Name: KALIN, Valentin Osipovich

Dissertation: Peculiarities of the Pathogenesis and clinic of otogenous brain abscesses, nonpurulent encephalitis, and arachnoiditis

Degree: Doc Med Sci

Affiliation: [Not indicated]

Defense Date, Place: 15 Jun 56, Council of Dept of Clinical Medicine Acad Sci USSR

Certification Date: 16 Mar 57

Source: BMVO 13/57

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, Valentin Osipovich, red.; POGOSOV, V.S., red.

[Problems in theoretical and clinical otiatrics] Voprosy teoreticheskoi i klinicheskoi otiatrii. Moskva, 1960. 190 p. (MIRA 13:12)

1. Moscow. TSentral'nyy institut usovershenstvovaniya vracheY.
(EAR--DISEASES)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V. O., doktor med. nauk; SKURKOVICH, G. V.

Some problems in diagnosing cancerous tumors of the esophagus. Vest. otorin. no.2:59-62 '62. (MIRA 15:2)

1. Iz Otorinolaringologicheskoy kafedry (zav. - prof. I. I. Potapov) TSentral'nogo instituta usovershenstvovaniya vrachey i iz Gorodskoy klinicheskoy infektsionnoy bol'nitsy No. 2, Moskva.

(ESOPHAGUS--CANCER)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

POTAPOV, Ivan Ivanovich, prof.; ZBEROVSKAYA, Nina Viktorovna; KALINA, Valentin Osipovich; VOLKOV, Yu.N., red.; PARAKHINA, N.L., tekhn. red.

[Tympanoplasty] Timpanoplastika. Moskva, Medgiz, 1963. 166 p. (MIRA 16:12)

(TYMPANAL ORGAN—SURGERY)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

FEL'DMAN, Aleksandr Isidorovich [deceased]; VUL'FSON, Solomon Isaakovich; KALINA, V.O., red.

[Diseases of the ear and upper respiratory tract in children] Bolezni ukha i verkhnikh dykhatel'nykh putei v detskom vozraste. 6-3 izd. perer. i dop. Moskva, Meditsina, 1964. 399 p. (MIRA 17:5)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

GLADKOV, Aleksandr Aleksandrovich; KALINA, V.O., red.

[Diseases of the nose, throat and ear] Bolezni nosa, gorla i ukha. Moskva, Meditsina, 1965. 365 p. (MIRA 18:2)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, V.O.; KACHOROVSKAYA, I.B.; MERKOVA, M.A.; GINZBURG, M.B.

Sequelae of radiotherapy of cancer of the larynx. Med. rad. 9 no.11:3-7 N '64. (MIRA 18:9)

1. Nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut Ministerstva zdravookhraneniya RSFSR.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA, Yu.P.; BABYRIN, V.V.

Determination of indium in process solutions. Zav. lab. 31 no.8: 946 '65. (MIRA 18:9)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

MACHALSKI, Marek; KALINA, Zbigniew; POREMNY, Zbigniew; PATER, Janusz

Postbulbar duodenal spasm syndrome. Pol. tyg. lek. 20 no.38: 1422-1424 20 S '65.

1. Z I Kliniki Chorob Wewnetrznych Slaskiej AM w Katowicach (Kierownik: prof. dr. Jozef Japa) i z Zakladu Radiologii P.M.R.N. w Katowicach (Kierownik: dr. Maria Mromlinska).

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

POLAND

GALA, Jerzy and KALINA, Zbigniew, First Clinic of Internal Diseases (I Klinika Chorob Wewnetrznych), Sl. AM [Slaska Akademia Medyczna, Silesian Medical Academy] in Katowice (Director: Prof. Dr. J. JAPA)

"Acute Necrosis of the Small Intestine During Infectious Polyneuroradiculitis Treated with Encortone."

Warsaw-Krakow, Przeglad Lekarski, Vol 19, Ser II, No 3, [24 Mar] 63, pp 188-189.

Abstract: [Authors' English summary] The authors present a case of the Guillain-Barre-Strohl syndrome in a 53-year old male, in whom death ensued following administration of encortone, as a result of perforating ulceration of the small intestine and consequent diffuse peritonitis. Of the 13 references, one is French, two are English, and ten are in Polish.

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA-ZHIKHAREVA, V.I.

137-58-5-11192

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 327 (USSR)

AUTHORS: Gurevich, A.B., Kalina-Zhikhareva, V.I.

TITLE: Employment of Cationites and of Trilonometric Titration for Determination of Arsenic in High-arsenic Alloys (Opredeleniye mysh'yaka v vysokomysh'yakovistykh splavakh s primeneniyem kationitov i trilonometricheskogo titrovaniya)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii. Ukr. resp. pravl., 1956, Vol 4, pp 127-130. Comments, pp 131-137

ABSTRACT: As is separated from Fe by means of passing a solution of the alloy through an ion exchanger containing 60 g of sulfocarbon or 40 g of KU-2. The As is precipitated in the solution by a magnesia-ammonia mixture. $MgNH_4AsO_4$ is filtered out and is dissolved in HCl (1:1); after adding NH_4OH, a buffer solution, and an indicator (acidic, dark-blue Cr), the As is titrated with a solution of trilon B. Another method of titrating As with trilon B is also described. The results of determination of As in ferroarsenic are presented in a tabulated form.

1. Arsenic compounds 2. Arsenic--Determination 3. Titration--Applications 4. Ions--Applications

Card 1/1

P.K.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINA-ZAIKHAREVA, V. I.

KALINA, V.I.

137-58-5-11152

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 322 (USSR)

AUTHORS: Kalina, V.I., Leve, N.F.

TITLE: Employment of Cationites and Trilon B in the Analysis of Open-hearth Slags with a High Content of Phosphorus Pentoxide (Analiz martenovskogo shlaka s vysokim soderzhaniyem pyatiokisi fosfora s primeneniyem kationitov i trilona B)

PERIODICAL: Byul. nauchno-tekhn. inform. Ukr. n.-i. in-t metallov, 1957, Nr 3, pp 92-94

ABSTRACT: In analyzing P-slags, the separation of the PO_4^{3-} anion from the cations of the second and third analytic groups is accomplished by a chromatographic method, which utilizes the cationites "vofatite"-P and sulfocarbon. After dissolving 1 g of slag in HCl, several drops of HNO_3 are added, and siliceous acid is separated in the usual manner. The solution is transferred to a graduated cylinder and an aliquot portion, diluted with H_2O, is passed through a column containing "vofatite"-P. All cations are absorbed by the vofatite, while the P remains in the filtrate, where it is determined by the volumetric-alkalimetric method. The cations are washed out of the vofatite-P with a solution of

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137-58-5-11152

Employment of Cationites (cont.)

HCl (1:4), and are then analyzed (for Fe, Mn, Al, Mg, and Ca). Mg is determined by the complexometric method with trilon B and a dark-blue Cr indicator. The analysis employing sulfocarbon is analogous to the procedure described, but requires a more thorough purification of the sulfocarbon.

A. M.

1. Slags--Analysis 2. Ions--Applications 3. Phosphorus pentoxide--Determination
4. Magnesium--Determination

Card 2/2

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

MURADKHANYAN, L.K., kand. sel'skokhoz. nauk; DROZDOV, V.N.; KOVALEV, A.T.; KALINCHENKO, V.I.

Machines and attachments for the placement of mineral fertilizers. Zemledelie 27 no.4:32-36 Ap '65. (MIRA 18:4)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva tsentral'nykh rayonov nechernozemnoy polosy.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

Kalinachenko, V. R.

Investigation of the reactivity of aromatic compounds by the method of isotopic exchange with deuterium bromide. V. R. Kalinachenko, Yu. M. Vurshavskii, and A. I. Galevskii. *Doklady Akad. Nauk S.S.S.R.* 91, 471-80 (1953); cf. *C.A.* 46, 9305f.—Data on H-D exchange between aromatic compds. and liquid HBr contg. D_2O are summarized. Such expts. show differences in reaction velocity of nonequiv. H atoms of the aromatic compd. mech. more sharply than do expts. with NO_2 + H_2O (*C.A.* 48, 10413f). These differences might be used for prepn. of compds. partially deuterated in a specific position in the aromatic mol. Selected data follow; given are the aromatic compd., temp., time, a, and b (= no. of a atoms exchanged for D, b = unimol. rate const. in sec^{-1}), resp.: C_6H_6, room temp., 160-1550 hrs., 0.2-1.4, 4×10^{-6}; naphthalene, 25°, 30 min., 4.5, 3×10^{-4} for α-H and 7×10^{-4} for β-H; phenanthrene, 25°, 30 min., 7.8, k not given; anthracene, 25°, 30 min., 10, k not given; pyrene, 0°, 30 min., 10, k not given; biphenyl, 25°, 1 hr., 1.2 (in 2-14 days reached const. value 6), 2×10^{-4} for the para H and 2×10^{-4} for ortho H; p-terphenyl, 25°, 1 hr., 1.3 (in 2-14 days reached const. value 10), 7×10^{-4} for para H and 6×10^{-4} for ortho H; RPh (R = Me, Et, Me(CH, MeC, or Bu), 25°, 2 hrs., 1.4-1.7 (values for each H are given in the paper), 3×10^{-4} for para H and 8×10^{-4} for ortho H and 2.5×10^{-4} for meta H (R = Me); diphenylmethane, 25°, 1 hr., 0.20 (1.1 in 2.2 hrs., 7.3 in 145 hrs.), 6×10^{-4} for para H; triphenylmethane, 25°, 1 hr., 0.08 (10.0 in 1454 hrs.), 8×10^{-4} for para H; 1,2-diphenylethane, 25°, 1 hr., 0.64, k not given; 1,4-diphenylbutane, 25°, 1 hr., 1.7, k not given; fluorene, spreadsheet, 25°, 3 hrs., 5.8, k not given; 1-Naphthonitrile or B or 2-[illegible]

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINACHENKO, V. R.

"Investigating Isotopic Hydrogen Exchange in Aromatic Compounds in a Medium of Liquid Deuterium Bromide." Cand Chem Sci, Sci Res Physicochemical Instituent L. Ya. Karpov, Min Chemical Industry, Moscow, 1955. (KL, No 18, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINACHENKO, V. R.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 22 - 33/53

Authors : Shatenshteyn, A. I.; Zhdanova, K. I.; Vinogradov, L. N.; and Kalinachenko, V. R.

Title : About oxygen catalysis of isotopic hydrogen exchange in a liquid deuterium bromide medium

Periodical : Dok. AN SSSR 102/4, 779-782, Jun 1, 1955

Abstract : Experiments were carried out with twenty substances containing halide, nitro, cyan, sulfo or carboxyl groups to determine the solubility of these substances in liquid DBr in the presence of $AlBr_3$ and their stability and behavior in the solution. It was found that the isotopic hydrogen exchange observed in certain saturated hydrocarbons mixed with D_2SO_4, DBr - $AlBr_3$, DF and DF - BF_3 is evidently connected with the exclusively high acidity of the medium. The results of the experiments carried out at room temperature are tabulated. Twenty-two references: 12 USA, 9 USSR and 1 German (1935-1954). Table.

Institution : The L. Ya. Karpov Sc. Res. Physicochemical Inst.

Presented by : Academician V. A. Kargin, February 24, 1955

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINACHENKO, V.

USSR/Organic Chemistry. Theoretical and General Questions of Organic Chemistry. E-1

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26613.

Author : Kololev, A.; Shatenshteyn, A., Yurygina, Ye.; Kalinachenko, V., Alikhanov, P.

Inst :

Title : Isomerization of Monodeuteronaphthalenes.

Orig Pub : Zh. obshch. khimii, 1956, 26, No. 6, 1666 - 1672.

Abstract : The question of the possibility of transposition of α-H and β-H in the naphthalene molecule was investigated by the method of deuterium interchange. It is shown that if vapors of α-deuteronaphthalene, as well of β-deuteronaphthalene (I and II) in a flow of nitrogen are passing above silica gel at 420°,

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KALINACHENKO, V.R.

SHATENSHTEYN, A.I.; KALINACHENKO, V.R.; VARSHAVSKIY, Ya.M.

Hydrogen exchange between benzene and haphthalene derivatives and liquid deuterium bromide [with English summary in insert]. Zhur. fiz.khim. 30 no.9:2098-2105 S '56. (MIRA 9:12)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova, Moskva.
(Hydrocarbons) (Hydrobromic acid-d)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINACHENKO, V. R.

76-1-22/32

AUTHORS: Shatenshteyn, A. I., Peregudov, G. V., Izrailevich, Ye. A., Kalinachenko, V. R.

TITLE: Preparation of Some Deuterated Aromatic Hydrocarbons and Their Raman Spectra (Polucheniye nekotorykh deyterirovannykh aromaticheskikh uglevodorodov i ikh spektry kombinatsionnogo rasseyaniya)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 1, pp.146-151 (USSR)

ABSTRACT: Some known preparations, as well as some ones of deuterated aromatic hydrocarbons still not being mentioned in literature were obtained, and their Raman spectra were measured by means of isotope exchange of hydrogen with ND_3 + KND_2 or with liquid DBr. A comparison between the Raman spectra of hexadeuterobenzene- and octadeuteronaphthalene preparations and those from the references 11, 12, 14 and 15 proves the identity of all preparations and fully confirms the approbation of the new methods of preparation of deuterated hydrocarbons. The advantages of these new methods in relation to those of other authors are enumerated: rapid reaction, the solvent is easily to be removed, possibility of a complete deuteration of various aromatic-, aliphatic-aromatic- and ethylene-hydrocarbons, as well as many other organic compounds. The advantage on occasion of the deuteration by means of liquid DBr in relation

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to that one by means of liquid ND_3 is the higher coefficient of the deuteration distribution between the Cu- and NBr bonds (α =3,0) in comparison to α = 0,9 in CH- and NH bonds (see reference 18 and 21). In the presence of an equal quantity of heavy water, 25 times more of DBr than of ND_3 is obtained, besides. The pure benzene- and toluene preparations placed at the disposal by A. L. Libernab served as initial substances. The liquid ND_3 was prepared by the action of D_2O (99,6 atm.% D) upon Mg_3N_2 (reference 2), whilst the liquid DBr was produced synthetically from the elements (reference 24). The technique of the experiment has been described in these references. Presently, the representation of the deutero--ammonia is simplified: Mg_3N_2 and an ampule with heavy water are put into a steel balloon. A valve is screwed in into the latter one. By means of destroying the ampule the reaction between Mg_3N_2 and D_2O is liberated. On occasion of the hydrogen exchange the substances exist in the solution. As a rule the potassium amide concentration is not great (0,02 N). The exchange reaction was carried out once more with new solvent portions at room temperature during a period, which guarantees the obtaining of the equilibrium in the exchange reaction. On occasion of the experiments with $C_{10}H_8$ the number of the ND_3 mols amounted to 50-150 per mol of substance, whilst on occasion of the experiment with benzene

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76-1-22/32

Preparation of Some Deuterated Aromatic Hydrocarbons and Their Raman Spectra

and toluene per mol of substance only 20-40 mol of the solvent was taken, because these hydrocarbons (especially benzene) on occasion of distilling after the experiment are easily entrained by ammonia. In order to obtain preparations by means of isotope exchange with liquid DBr 1 g of the substance was dissolved in 15 - 22 g of liquid DBr. After evaporation of the solvent the liquid substances were distilled (above $CuSO_4$, in order to remove the ND_3 traces, or above Na, in order to bind DBr). Solid substances were distilled 2 - 3 times.

The spectra of the combined scattering (Raman spectra) were measured by means of a two-prism-spectrograph "Huet" with relative aperture 1 : 4,7 and a dispersion of 100 cm^{-1} in the range of 4358 Å. In the following work the computations, and the interpretation of the spectra are given, and the values of the frequencies are precised. The Raman spectra of following substances were measured: C_6D_6, $C_{10}D_8$, $C_{12}D_{10}$, $C_6D_5CD_3$, 1,4,5,8-$C_{10}D_4H_4$, 2,3,6,7-$C_{10}D_4H_4$, 2,4,6,2',4',6'-$C_{12}D_6H_4$ and 3,5,3',5'-$C_{12}D_4H_6$.

The authors were advised by G. S. Landsberg, Academician, and Professor P. A. Bazhulin. P. N. Manochkina assisted. The density of

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76-1-22/32

Preparation of Some Deuterated Hydrocarbons and Their Raman Spectra

the preparations was measured by Yu. I. Antonchik. The preparations were placed at disposal by A. L. Liberman. There are 2 tables, and 24 references, 9 of which are Slavic.

ASSOCIATION: Physical-Chemical Institute imeni L. Ya. Karpov. AS USSR. Institute for Physics imeni P. N. Lebedev, Moscow (Fiziko-khimicheskiy institut im. L. Ya. Karpova. Akademiya nauk SSSR. Fizicheskiy institut im. P. N. Lebedeva. Moskva)

SUBMITTED: October 31, 1956

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

5 (2,3)

SOV/79-29-3-21/61

AUTHORS: Shatenshteyn, A. I., Kalinachenko, V. R., Yurygina, Ye. N., Basmanova, V. M.

TITLE: Deuteron Exchange Between Liquid DBr and Phenylated Alkanes (Deyteroobmen mezhdu zhidkim DBr i fenilirovannymi alkanami)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 849-855 (USSR)

ABSTRACT: The reaction rate of the electrophilic substitution of hydrogen in alkyl benzenes [(of the chlorination (Refs 1,2), bromination (Ref 3), nitration (Ref 4) and alkylation according to Friedel-Crafts (Ref 5)] decreases in the following order: $C_6H_5CH_3 > C_6H_5C_2H_5 > C_6H_5CH(CH_3)_2 > C_6H_5C(CH_3)_3$. This is explained (Refs 6,7) by the effect of "superconjugation" ($\sigma\pi$-conjugation). It may be assumed in an analogous way that the rate of the corresponding reactions, under participation of the polyphenylated alkanes, also depends on the ratio of the number of the α-CH-bonds to the number of the aromatic rings. If it is, however, taken into account that the bromination rate of the alkyl benzenes depends on the ramification of the carbon chain not only on the α-, but also on the β-carbon atom of the alkyl

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SOV/79-29-3-21/61

Deuteron Exchange Between Liquid DBr and Phenylated Alkanes

group (Ref 3) it is not impossible that in the reactions of the electrophilic substitution of hydrogen in other phenylated alkanes the ratio between the number of rings and the number of the more remote CH-bonds is of importance. In order to prove the correctness of these assumptions the authors investigated the deuteron exchange between the polyphenylated alkanes and liquid DBr (Refs 8,9). Its mechanism is closely related with the mechanism of the chemical reactions of the electrophilic substitution of hydrogen (Ref 10). Some results were already earlier published (Ref 11). Experiments of this kind were carried out with the following hydrocarbons: diphenyl, triphenyl, tetraphenyl methane, fluorene, dibenzyl, sym.-tetraphenyl ethane, 1,1,1-triphenyl ethane, 1,3-diphenyl propane, 1,4-diphenyl butane and 1,5-diphenyl pentane. Thus it was demonstrated that the phenyl rings separated by the carbon atom (in tetraphenyl methane) are of mutual influence as regards the reactivity. It is compared with the influence exerted by the effect of the $\pi\pi$- and σ,π-conjugation upon the reactivity of the aromatic ring. There are 2 tables and 36 references, 16 of which are Soviet.

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SOV/79-29-3-21/61

Deuteron Exchange Between Liquid DBr and Phenylated Alkanes

ASSOCIATION: Fiziko-khimicheskiy institut imeni L. Ya. Karpova i Nauchno-issledovatel'skiy institut poluproduktov i krasiteley (Physico-Chemical Institute imeni L. Ya. Karpov and Scientific Research Institute of Semiproducts and Dyes)

SUBMITTED: February 10, 1958

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KUZ'MIN, N.M.; BELYAYEV, V.P.; KALINACHENKO, V.R.; YAKIMENKO, L.M.

Chemical-spectral method of the analysis of high-purity alkalies. Zav. lab. 29 no.6:691-692 '63. (MIRA 16:6)

(Alkalies) (Spectrochemistry)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINAK, Iosif, novator

Device for feeding mortars to vertical and horizontal joints of masonry walls and seams of reinforced concrete wall elements. Suggested by Iosif Kalinak. Rats.i izobr.predl.v stroi. no.13: 96-98 '59. (MIRA 13:6)

1. Po materialam Instituta tekhnicheskoy dokumentatsii Rumynskoy Narodnoy Respubliki.
(Mortar)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

YANKAUSKAS, M. M.[Jankauskas, M.]; KALINAUSKAS, A. T.[Kalinauskas, A.]

Maximum percentage of reinforced steel in bar-reinforced concrete beams. Liet ak darbai B no.1:243-255 '61. (EEAI 10:9)

1. Institut stroitel'stva i arkhitektury Akademii nauk Litovskoy SSR.

(Reinforced concrete)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

YANKAUSKAS, M.M. [Jankauskas, M.]; KALINAUSKAS, A.T.

Crack resistance analysis of prestressed reinforced concrete elements subjected to bending. Trudy AN Lit. SSR. Ser.B. no.1:235-242 '62 (MIRA 17:8)

1. Institut stroitel'stva i arkhitektury AN Litovskoy SSR.

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

YANKAUSKAS, M.M. [Jankauskas, M.]; KALINAUSKAS, A.T.

Experimental study of the effect of prestressing on the carrying capacity of a reinforced concrete component having a rectangular cross section and subjected to bending. Trudy AN Lit. SSR. Ser.B no.1:193-210 '65. (MIRA 18:7)

1. Institut stroitel'stva i arkhitektury AN Litovskoy SSR.

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KALINAUSKENS, B. I.

23(4) 23 (5) SOV/77-4-2-15/18

AUTHOR: Lyalikov, K.S.

TITLE: Successes of Soviet Electrophotography (Uspekhi sovetskoy elektrofotografii) A Scientific and Technical Conference on Questions of Electrography (Nauchno-tekhnicheskaya konferentsiya po voprosam elektrografii)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 2, pp 149-152 (USSR)

ABSTRACT: This is an account of a scientific and technical conference on electrography, the first to be held in the Soviet Union and evidently in the world. It was organized in Vil'nyus on December 16-19, 1958 by the Soviet narodnogo khozyaystva Litovskoy SSR (Council for National Economy of the Lithuanian SSR), the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta ministrov Litovskoy SSR (State Scientific and Technical Committee of the Council of Ministers of the Lithuanian SSR) and the Nauchno-issledovatel'skiy institut elektrografii (Scientific Research Institute of Electrography). The conference, attended by over 300 scientific workers, was opened by the Deputy Chairman of the Council for National Economy of the Lithuanian SSR P.A. Kul'vets, after which the director of the Institute for Electrography, I.I.Zhilevich, reviewed the state and prospects for development of electrography in the USSR. He stated that research in this field should be carried out along the following lines: a) a search for new photo-active materials with high dark resitance; b) physical research into the internal photoeffect; c) development of photosemiconductor layers; d) development of the theory of the electrophotographic process. K.S. Lyalikov (speaking also for O.G. Popova) gave a report in which he suggested determining the light sensitivity of electrophotographic layers in GOST units. N.Z. Plavina (speaking also for I.I.Zhilevich, L.I.Syun'ko, N.N.Markevich, B.I. Kalinauskens and O.M. Suveyzdis) reported on some research on the sensitization of a semiconductor in electrophotographic layers. V.M. Fridkin gave a report on highly sensitive electrophotographic layers and an electrophotocopying device, and reviewed the formation process of the latent electrophotographic image on the basis of the zonal theory. He also described the design of an electrosensitometer for determining sensitivity by the relaxation period of a charge on the surface of the layer, and the circuit of an electrophotographic copying device. Anfilov finished describing the latter and then spoke on the mechanics and kinetics of the development of the latent electrophotographic image in liquid developers.

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SOV/77-4-2-15/18

Successes of Soviet Electrophotography; A Scientific and Technical Conference on Questions of Electrography

K.M. Vinogradov described some of the features of the cascade and liquid methods of electrophotographic development. Yu.Ye. Karpeshko devoted his report to the criterion of light sensitivity of the electrophotographic process. After the reports, a discussion took place on methods of determining the light sensitivity of electrophotographic layers. A.N. Chernyshev spoke on the prospects of developing polygraphic processes using electric and magnetic forces. O.V. Gromov (speaking also for I.I. Zhilevich, A.A. Sukhiy, V.A. Gordeyeva, A.S. Pauzha and Yu. I. Kevalaytis) reported on the development of electrophotographic reproducing equipment. A.S. Pauzha (speaking also for I.I. Zhilevich, A.S. Borisovich, N.M. Gal'vidiks and M.I.Rautkauskas) reported on the use of electrographic methods in recording oscillographs and other recording instruments. V.P. Yurchenko (speaking also for L.N.Balin) spoke on the possibility of electrophotographically recording images from electron-beam tubes. L.S. Korol' (speaking also for M.M. Markevich, T.I. Kozlovskaya, B.I. Kalinauskene, M.K. Naynens, I.I. Zhilevich and K.A. Montrimas) gave a detailed description of laboratory and machine methods of producing photosemiconductor papers (zinc oxide was used). A.A. Sukhiy (speaking also for I.I. Zhilevich, O.V. Gromov, V.A. Gordeyev , N.V. Fedotov and T.N. Ger) described a laboratory and industrial machine for producing photosemiconductor papers. T.A. Shishkina (speaking also for Ya.A. Oksman) reported on a method of examining electrophotographic materials using an a/c bridge. S.I. Khotyanovich (speaking also for A.I. Gikens and I.S. Shleykens) spoke on developing materials for electrophotography and ferromagnitography, including developers giving a "reverse" image. B.I. Tikhonov reviewed methods of measuring the electrostatic potentials of electrophotographic layers, stressing that the oscillating electrode should not be placed above a layer with varying potential as this causes self-discharge. E.V. Krukovskis (speaking also for B.G.Gorevoy, A.V.Osipov and Ye. S. Kheyfets) spoke on the practice of producing velveteen papers in an electrostatic field, and showed samples produced by the Grigishskaya paper factory. Ye.L. Nezirovskiy then gave a historical review of the development of electrographic methods in which he paid tribute to the work of the Scientific Research Institute of Electrography in Vil'nyus and the Institut poligraficheskogo mashinostroyeniya (Moskva)-(Polygraphic Machine-Building Institute (Moscow)). Debates were then held

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on methods of measuring the potential of charged electrophotographic layers; the vibration pick-up most-used was shown in B.I. Tikhonov's report to be not always accurate. S.G.Grenishin stated that the bad influence of the oscillating electrode can be eliminated if the electrode probe above its surface is fixed and the pick-up is connected to it by a shielded cable. In the debate on Ye.L. Nemirovskiy's report it was stated that the research of Academicians A.N. Terenin and Ye.K. Putseyko should be considered as the basis of all work on electrophotographic papers with ZnO, as they were the first to show the possibility of optical sensitization of the internal photoeffect in ZnO. N.M.Gol'vidis then gave a report on the depositing of charges by a corona discharge. A.I. Kaminskas and A.P. Yanulis reviewed some of the results of the use of electrographic methods in radiography. L.I. Nyun'ko (speaking also for I.I. Zhilevich, I.Z. Plavin, Yu.K. Vishchakas and Yu.A.Zibuts) reported on relaxation processes in semiconductor layers, using a vibration electrometer. Yu.K.Vishakas gave a report on research on some physical properties of the polycrystalline layers of selenious cadmium. M.P. Mikalkyavichyus spoke on some of the photoelectric properties of Sb_2S_3 and Sb_2Se_3: the absorption maximum of the latter is about 900 a μ. S.M. Keyman reported on methods of obtaining selenium light-sensitive layers, including sublimation and thermal treatment; it was also found that the sensitivity of the layers increased after storage for 1.5 to 2 months at room temperature. P.M. Podvigalkin (speaking also for S.G.Grenishin) spoke on research into the electrical properties of electrophotographic layers of amorphous selenium and powdered zinc oxide. N.K. Shiktorov (speaking also for A.S. Tauraytis) discussed the production of selenium layers and some of their properties. Finally the following reports on ferromagnetography were delivered; 1) B.Ya. Kaznacheyev, V.M.Zhogina, "Electrodeposition of Magneto-hard Alloys with Given Magnetic Characteristics" 2) M.T.Arutyunov, "Visualization of Magnetic Oscillograms by the Ferrographic Method" 3) V.T.Patrunov, "Ferrographic Recording of Facsimile Images" 4) I.I.Zhilevich, I.I. Gikis, B. Ye. Buchek, I.I. Kaynise, A.K.Eizhis, "Mock Experiments in Non-Pressure Ferromagnetic Printing". There was also an exhibition showing the work of the Electrographic Institute. The most important conclusion of the conference was that a solid approach had been made to the possibility of wide technical use of the methods of electrography. It was considered that although work in this field actually started only in 1955-56 it has covered as much ground as the USA in 10 years. While admitting that it was easier to reproduce results already achieved than to be the first to arrive at them, the conference observed that the Americans took good care that no important information appeared in the literature available.

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KALINCHENKO, A.

KALINCHENKO, A.

Electric Coils

Elimination of breaks in coils. Radio 29 No. 3, 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

AUTHORS: Kalinchenko, L.P., Strakhov, N.P., Kalinichenko, I.I. 32-1-7/55

TITLE: New Color Reaction for the Ascertainment and Determination of Beryllium With Chrome-Blue K (Novaya tsvetnaya reaktsiya dlya otkrytiya i opredeleniya berilliya s khromsinim K).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 22-23 (USSR)

ABSTRACT: Beryllium ions form a well soluble compound of bright-blue color with the acid chrome-blue K in the ammonia medium at pH=9-10. The effect produced by other ions (as e.g. Cu, Ni, Al, Co, Ba, Mg, Ca, Cd, Zn and others), which might produce colors with K, is eliminated by their addition to trilon. In this way it is possible to ascertain and quantitatively to determine beryllium. For the determination of beryllium a drop of the solution to be investigated is dropped onto filter paper; this is followed by a drop of ammonia buffer solution (20%), a drop of 0,1-n trilon B, and a drop of a 25% aqueous solution of acid chrome-blue K. If, after drying, a small blue or sky-blue spot forms in the center of the pink or violet-red spot, this indicates the presence of beryllium in the solution investigated. Otherwise, the same reaction may be observed in the test tube. If the beryllium content is not less than 10^{-7} g/ml, a pinkish

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

New Color Reaction for the Ascertainment and Determination of Beryllium With Chrome-Blue K 32-1-7/55

sky-blue color is obtained, and with a beryllium content of from 3.10^{-8} to 10^{-7} g/ml the color will be bluish-violet. Within the range of 2.10^{-6} g/ml this color is in accordance with the Lambert-Beer law. The maximum of light absorption in a pure reagent amounts to 580-590 mμ and with the beryllium complex - 600-610 mμ. Results are given in a table; a second table deals with ascertaining the presence of beryllium in bronze. There are 2 tables.

ASSOCIATION: **Sverdlovsk Medical Institute and Ural Polytechnical Institute im. S. M. Kirov** (Sverdlovskiy meditsinskiy institut i Ural'skiy politekhnicheskiy institut im. S.M.Kirova).

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Card 2/2 1. Beryllium-Determination

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINCHENKO, L.P.; KALINCHENKO, I.I.

Complexometric determination of beryllium in copper alloys. Trudy Ural.politekh.inst. no.130: 70-73 '63. (MIRA 17:10)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINCHENKO, L.P.; KALINICHENKO, I.I.

Titrimetric determination of beryllium by means of sulfosalicylic acid. Zhur.anal.khim. 17 no.7:840-843 O '62. (MIRA 15:12)

1. Sverdlovsk Medical Institute and S.M.Kirov Ural Polytechnical Institute, Sverdlovsk.
(Beryllium—Analysis) (Salicylic acid)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINCHEV E.L.

82109
S/184/60/000/02/01/006

15.D110

AUTHORS: Kalinchev, E.L., Engineer, Rips, S.M., Candidate of Technical Sciences

TITLE: The Determination of the Cooling Time of Parts in the Mold in Injection-Molding of Plastics

PERIODICAL: Khimicheskoye mashinostroyeniye, 1960, No 2, pp 22 - 26

TEXT: The article deals with the dynamics of the cooling process of parts in the mold, which has a direct effect on the efficiency of an injection molding machine. The determination of the full time of the injection cycle is complicated by the unsteady character of thermal conditions during the cooling process. The industrial experience accumulated and the authors' experiments show that the temperature of the mold does not change much during casting. The temperature of the mold changes within 1.5 - 5°C at a temperature of the injected mass within 295 - 200°C. An ample cooling water supply results in a drop of the mold temperature. The existing injection molding machines complete the injection within a short time (4.5 sec for pieces of 12 kg and 1.5 - 3 sec for lighter pieces) which is too short to record more or less sub-

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82109
S/184/60/000/02/01/006

The Determination of the Cooling Time of Parts in the Mold in Injection-Molding of Plastics

stantial temperature changes in the center of the injected mass. For this reason it is assumed that the temperature in the center is constant and equal to the temperature of the injected mass. Experiments were carried out to determine the rate of cooling (M.A. Bochtarev and O.G. Baglayevskaya participated). A long polystyrene spiral, 20 mm wide and 5 mm thick, was used (coefficient of temperature conductivity $a = 2.5 \cdot 10^{-4}$ m^2/hour). One Chromel-Copel thermocouple was fixed in the center of the mass and another one was located 1 mm closer to the surface. The changes of temperature in time were recorded by an "ОТ24-51" (OT24-51) tensometric device. Temperatures of both mold sections were recorded by "ПСР1-01" (PSR1-01) electronic potentiometers. The temperature of the injected mass was determined in a nozzle of a special design, where the thermocouple could be fixed in the center of the mass to be injected (Figure 3). The experimental results agreed with theoretical calculations. The degree of divergence between calculation results obtained by the Fourier method and by the method of elementary heat balances and by the experimental investigation is shown by graphs (Figure 6) and Table 2. Besides temperature and pressure of the injected mass, the decisive factor in injection

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

SAGALAYEV, G.V.; KALINCHEV, E.L.

New molding machines. Plast.massy no.6:48-54 '61. (MIRA 14:5)
(Plastics—Molding)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

RABINOVICH, I.M.; KRICHEVER, I.S.; KALINCHEV, E.L.

New injection molding machine model TP-65. Plast.massy no.4:43-45 '61. (MIRA 14:4)

(Plastics--Molding)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

RABINOVICH, I.M.; KRICHEVER, I.S.; KALINCHEV, E.L.; MARAM, Ye.I.

New "TP-32" model molding machine. Plast.massy no.8:50-51 '62. (MIRA 15:7)

(Plastics machinery)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINCHEV, E.L., inzh.; LEVIN, A.N., doktor tekhn.nauk, prof.

Calculating the force necessary for closing the molds of molding machines. Khim.mashinostr. no.2:8-10 Mr-Ap '63. (MIRA 16:4)
(Plastics—Molding)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

BEDILO, V.Ye.; KALINCHUK, I.G.; LISHBERGOV, V.D.; NIKOLAYEV, G.P.; TSOY, D.; SHCHUKINA, G.F. Prinimali uchastiye: KOLESNIKOV, V.F.; OSTAPENKO, P.V.; SEDOVA, M.P.; TKACHEV, M.V. DUGIN, Ye.V., otv.red.; RABINKOVA, L.K., red.izd-va; KOROVENKOVA, Z.A., tekhn.red.; SABITOV, A., tekhn.red.

[Types of mine cross section] Tipovye secheniia gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.6. [Cross section of mines lined with steel arches and anchor bolting for 1-, 2- and 3-ton railroad cars] Secheniia vyrabotok, zakreplennykh stal'noi arochnoi i shtangovoi krep'iu, dlia 1-, 2- i 3-tonnykh vagonetok. 1960. 503 p. (MIRA 13:12)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.
(Mine timbering)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

PRIYEMCHENKO, A., polkovnik; KALINCHUK, M., podpolkovnik

Cadets learn to fight a battle. Voen.vest. 42 no.5:66-69 My '62. (MIRA 15:11)

(Attack and defense (Military science))

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINCHUK, P., podpolkovnik; SOLOV'YEV, A., podpolkovnik

Topography in the interests of tactics. Voen. vest 43 no.1:63-65 Ja '64. (MIRA 17:1)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINCHUK, P., podpolkovnik

Dissemination of technical information. Tyl i snab.Sov.Voor.Sil 21 no.1:30-32 Ja '61. (MIRA 14:5)
(Military education)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, I. G.

"The Controlled Change of Common Winter Wheat Into Ramose Wheat by Means of Training." Cand Biol Sci, All-Union Order of Labor Red Banner Selection and Genetics Inst imeni T. D. Lysenko, Odessa, 1955. (KL, No 12, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, I.G., kand.biolog.nauk; CHORBA, L.N.

Harvesting time and the quality of strong wheats. Zemledelie 25 no.7:39-41 Jl '63. (MIRA 16:9)
(Caucasus, Northern--Wheat--Harvesting)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, I.G.

A case of prolification of spikelets in wheat. Bot.zhur. 47 no.3:419-420 Mr '62. (MIRA 15:3)

1. Gosudarstvennaya selektsionnaya stantsiya, g. Zernograd.
(Wheat)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, I.G., kand.biologicheskikh nauk; CHORBA, L.N.; GORYACHEV, N.P.

Strong winter wheats in Rostov Province. Zemledelie 24 no.8:38-41 Ag '62. (MIRA 15:9)

1. Zernogradskaya gosudarstvennaya selektsionnaya stantsiya Donskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva.
(Rostov Province—Wheat—Varieties)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, I.G., kand. biolog. nauk; CHORBA, L.N.

Producing high-grade grain of strong winter wheat and its breeding for quality. Agrobiologia 5:774-784 S-O '64. (MIRA 17:11)

1. Zernogradskaya gosudarstvennaya selektsionnaya stantsiya.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, L.G.; LITVAK, I.M.

Effect of certain factors on the extent of sucrose precipitation by barium hydroxide. Trudy KTIPP no.22:7-15 '60. (MIRA 14:3)
(Sucrose) (Barium hydroxide)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

LITVAK, I.M.; KALINENKO, L.G.

Studying the technological conditions of the settling of the feed molasse sucrose with barium hydroxide. Trudy KTIPP no.24:3-7 '61. (MIRA 15:6)

(Sugar manufacture) (Sucrose)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

BRODSKIY, A.M.; KALINENKO, R.A.; LAVROVSKIY, K.P.

Adsorptive analysis and separation of hydrocarbon gases. Khim. i tekh. topl. no.8:18-22 Ag '56. (MLRA 9:10)

1.Institut nefti Akademii nauk SSSR.
(Hydrocarbons)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, R.A.

USSR/Physical Chemistry - Kinetics. Combustion. Explosives. Topochemistry. Catalysis B-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3866

Author : Lavrovskiy K.P., Kalinenko R.A., Rozental' A.L.
Inst : Institute of Petroleum, Academy of Sciences USSR
Title : On Conversion of Hydrocarbon Gases with Steam over Aluminum-Molybdenum Catalyst.

Orig Pub : Tr. In-ta nefti AN SSSR, 1956, 8, 131-133

Abstract : A study was made of the reaction of conversion of methane, ethane and propane with steam over an aluminum-molybdenum catalyst, in a flow system at 570-620°, space velocities of 12-100 hour^{-1}, and molar ratio H_2O/initial hydrocarbon of 4-19.4. Degree of conversion of CH_4 at a pressure of 1-32 atmospheres does not exceed 2.0%, the degree of conversion of C_2H_6 and of C_3H_8 at a pressure of 1 atmosphere does not exceed, respectively, 14.2 and 27.4%

Card 1/1 - 153 -

Card 1/2 - 157 - Inst. Chem. Moscow State Univ.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

BRODSKIY, A. I., KALINENKO, R. A., LAVROVSKIY, K. P.

"Application of Adsorption Methods to the Analysis and Separation of Gaseous Hydrocarbons in the Study of Kinetics with the Aid of Tracers."

p. 389-404,

Problemy Kinetiki i Kataliza, v. 9, Isotopes in Catalysis, Moscow, Izd-vo AN SSSR, 1957. 440p.

Most of the papers in this collection were presented at the Conf on Isotopes in Catalysis which took place in Moscow, Mar 31- Apr 5, 1956.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, R.A.

20-5-19/48

AUTHORS: Brodskiy, A. M., Kalinenko, R. A., Lavrovskiy, K. P., Corresponding Member AN USSR, and Titov, V. B.

TITLE: Kinetic Laws in the High-Temperature Cracking of Ethane (O kineticheskick zakonomernostyakh vysokotemperaturnogo krekinga etana)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 789 - 792 (USSR)

ABSTRACT: In this paper the investigation of the total kinetics of this cracking between 800 and 900° is described. The increase of temperature and the corresponding rapid shortening of the reaction period from 0,5 to 0,005 seconds demand a special experimental method. The experiment was divided into 2 parts: 1.) the cracking itslef and 2.) analysis of the products. In the case of the latter a chromatographical method worked out by the authors was used (reference 3), where this method failed because of the small quantity of the single gases (e.g. isobutane), the method of radioactive indicators was used. In addition to that, a small quantity of methane, marked with C^{14}, was added to the initial ethane. Figure 1 gives the arrangement of the basic elements of the experimental device. During the experiments a "boiling layer" (reference 2) was produced in the reactor. After a quick cooling of the cracking products after the output from the boiling layer CO_2 of room temperature and in

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20-5-19/48

Kinetic Laws in the High-Temperature Cracking of Ethane

measured in the previous paper (reference 6). By means of the authors' method it was found that in the ethane cracking products in tenth % quantities divinyl, butylene, and only traces of isobutane, finally propylene and propane, a fact which was never defined exactly in the references. Figure 2 furthermore shows that the known self-inhibition effect is not expressed up to high degrees of transformation. This can be explained by the connection between the self-inhibition at lower temperature and the influence of the walls. There are 3 figures, 1 table, and 7 references, 4 of which are Slavic.

ASSOCIATION: Petroleum Institute AN USSR (Institut nefti Akademii nauk SSSR)

SUBMITTED: May 25, 1957

AVAILABLE: Library of Congress

Card 3/3

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

The Significance of Chain Reactions in the High-Temperature Cracking of Ethane 20-6-26/47

to the solution of a system of algebraic equations. The author additionally includes 5 elementary processes in the examination. Then the expressions for the dependence of the concentrations of the various active products on time, obtained due to a special analysis, are given. A provisional estimation already shows that the portion of chain reactions in the total process of cracking within the frame of the generally used scheme in the case investigated here is very small. Detailed numerical data on this are given. There are 1 table, and 9 references, 5 of which are Slavic.

ASSOCIATION: Petroleum Institute AN USSR (Institut nefti Akademii nauk SSSR)

SUBMITTED: July 18, 1957

AVAILABLE: Library of Congress

Card 2/2

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

KALINENKO, R. A., Cand Chem Sci -- (diss) "Study of the mechanism of ethane cracking at high temperatures ~~with use~~ by means of ~~labeled isotopes~~ tagged atoms." Mos, 1958. 10 pp (Acad Sci USSR, Inst of Petroleum), 120 copies (KL, 16-58, 116)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

66856

~~5(4)~~ 5.3200 SOV/76-33-11-13/47

AUTHORS: Brodskiy, A. M., Kalinenko, R. A., Lavrovskiy, K. P., Titov, V. B.

TITLE: On the Mechanism of High-temperature Cracking of Ethane

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 11, pp 2457-2466 (USSR)

ABSTRACT: The reaction mechanism of the cracking of hydrocarbon gases at 770-890° was studied, as in general the industrial pyrolysis of these gases takes place at these high temperatures. A special experimental method was developed by which tracer atoms and ethane are used to which approximately 2% of marked $C^{14}H_4$ methane was added. The experiments were made in a continuously working apparatus (Fig 1) at approximately 90 mm Hg. The quartz reactor was filled with corundum acting as heat carrier, and the temperature was recorded by means of an EPP-09 electronic potentiometer. The results obtained (Tables 1-3) showed that at these temperatures the maximum participation of the chain-reaction process in the conversion of ethane into ethylene is 5%, and that the inherent inhibition

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

66858

SOV/76-33-11-13/47

On the Mechanism of High-temperature Cracking of Ethane

characteristic of cracking at 500-650°C does not occur. The reaction proceeds according to the first order, and the activation energy is 82±2 kcal/mol. The reaction-rate constant of $CH_3 + C_2H_6 \rightarrow CH_4 + C_2H_5$ points to a steric factor of the order of 10^{-3} for this reaction, while the activation energy obtained from 12±2 kcal is in agreement with data from other publications. The recombination constant, obtained both by experiment and by calculation using thermodynamic data, is approximately $5 \cdot 10^2$ times smaller than that obtained at lower temperatures. The decomposition rate constant of the ethyl radical is 10^3 times smaller than it would be according to the elementary kinetic gas theory. There are 4 figures, 3 tables, and 14 references, 8 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut neftekhimicheskogo sinteza (Academy of Sciences, USSR, Institute of Petroleum-chemical Synthesis)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

(accuracy ~ 1 %). The activity of methane is not equal to A/2 (as it would have to be in the case of lacking isotopic effect) but much lower. Here A is the activity of the ethane mixture existing when measurements were begun. A table contains the values of ethane activity in % of A/2 as function of the ethylene content in the cracked gas. Methane activity is lower by ~10 % than A/2 and varies relatively little with progressing reaction. The value of the isotopic effect found is near that found previously (Refs 1,2) for propane. The data mentioned above all confirm (on the basis of ethane) the abnormally high value of the isotopic effect in the reaction of methane formation. The equality of the order of magnitude of the isotopic effect (with respect to methane) for C_2H_6 and C_3H_8 indicates the existence of similar ethanes in the formation of CH_4 in the two above-mentioned cases. Correction note: The provisional experiments carried out by the authors concerning the cracking of the ethane mixture $C^{12}H_3 - C^{12}H_3$ and $C^{14}H_3 - C^{14}H_3$ showed that in this case the isotopic effect (with respect to methane) is considerably

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

On the Isotope Effect in the Cracking of Ethane SOV/20-124-2-28/71

lower than in the cracking of $C^{12}H_3 - C^{14}H_3$. This confirms the above assumption that the abnormally high value of the isotopic effect in the cracking of ethane $C^{12}H_3 - C^{14}H_3$ is due to a quantum effect connected with the disturbance of symmetry. There are 1 table and 7 references, 4 of which are Soviet.

SUBMITTED: September 24, 1958

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

5(4) 307/20-126-6-41/67

AUTHORS: Brodskiy, A. M., Kalinenko, R. A., Lavrovskiy, K. P., Corresponding Member, AS USSR

TITLE: On the Relation Between the Kinetic Isotopic Effects During C^{12}-C^{14} and C^{14}-C^{14} Bond Rupture (O sootnoshenii kineticheskikh izotopnykh effektov pri razryve svyazey C^{12}-C^{14} i C^{14}-C^{14})

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1293-1295 (USSR)

ABSTRACT: The effects mentioned in the title were investigated under conditions of high temperature cracking by means of a mixture of $C^{12}H_3$-$C^{12}H_3$ with $C^{14}H_3$-$C^{14}H_3$. The results were compared with the cracking of $C^{14}H_3$-$C^{12}H_3$ as described in reference 1. This experiment was made for the reason that hydrocarbons with only partly marked C-atoms yielded higher values for the isotopic effect (Refs 1-3) than could be expected according to the present theoretical opinions (Refs 4, 5). The following is given as a possible explanation of this phenomenon:

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hydrocarbon molecules exhibit a plane of symmetry vertical to the chain or a corresponding alternating axis. The introduction of a marked C-atom has a disturbing effect upon this symmetry, and the transition from the symmetrical to the asymmetrical molecule might entail a considerable kinetic effect. Herefrom it resulted that the symmetrical ethanes $C^{12}H_3$-$C^{12}H_3$ and $C^{14}H_3$-$C^{14}H_3$ had to differ from asymmetrical $C^{12}H_3$-$C^{14}H_3$ in their effect. The experimental data (Table 1) shows that the kinetic isotopic effect amounts to $5\pm1\%$ in the formation of methane from $C^{14}H_3$-$C^{14}H_3$; it is, therefore, considerably lower than the value of $12\pm2\%$ of reference 1 found for asymmetrical ethane. Measurements were made under entirely equal conditions. This result shows that there is no direct proportion between the kinetic isotopic effect and the reduced mass, and confirms the assumption that the disturbance of the

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

5(4) S/076/60/034/01/031/044
B004/B007

AUTHORS: Brodskiy, A. M., Kalinenko, R. A., Lavrovskiy, K. P.

TITLE: A Method of Investigating the Mechanism of Fast Reactions in a Turbulent Reactor by Means of Tagged Atoms

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 1, pp 192 - 195 (USSR)

ABSTRACT: The term turbulent reactor is applied by the authors to a reactor vessel with an intense intermixing device. After giving a survey of the methods of investigating the kinetics of reactions and mentioning the isotopic method by M.B.Neyman, the authors explain the simplification of kinetic equations attained when using tagged atoms and by intensively intermixing the reagents as a result of the falling away of concentration- and temperature gradients. The method makes it possible to deal with both single processes in the reaction and also with the total process, and may therefore be used for the purpose of judging the correctness of the scheme upon which the reaction is based. By the example of the cracking of

Card 1/2

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

A Method of Investigating the Mechanism of Fast Reactions in a Turbulent Reactor by Means of Tagged Atoms

S/076/60/034/01/031/044
B004/B007

C_2H_6 at 800 - 900° it is shown that by thoroughly intermixing, linear dependence was obtained for the function y = f(t) (Figs 1, 2). There are 2 figures and 6 Soviet references.

SUBMITTED: April 10, 1959

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

31091
S/195/61/002/004/007/008
E030/E585

5.4300

AUTHORS: Brodskiy, A. M., Kalinenko, R. A., Lavrovskiy, K. P. and Shevel'kova, L. V.

TITLE: Principles of the decomposition of methanol at high temperatures

PERIODICAL: Kinetika i kataliz, v.2, no.4, 1961, 555-561

TEXT: Previous investigations of the decomposition of alcohols from C_2 to C_4 postulated an approximately first-order reaction, involving rupture of C-C or C-H bonds but the yields and mass balances of C, H, and O have disagreed by about 50% and the activation energy for reaction velocity has been many times smaller than that for pressure decrease in the system. Decomposition of methanol was considered by C. J. M. Fletcher (Ref.6: Proc. Roy. Soc., A147, 119, 1934) to be two-stage:

$$CH_3OH \rightarrow CH_2O + H_2$$

$$CH_2O \rightarrow CO + H_2$$

with similar discrepancies. The present work studied the reaction

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31091

Principles of the decomposition ... S/195/61/002/004/007/008
E030/E585

gases twofold. In all cases the reaction products had significant concentration of C_2H_6, CH_3OCH_3, $C_2H_5OCH_3$, $C_2H_5OC_2H_5$, CH_3CHO, CH_3COCH_3 etc., signifying extensive free radical formation. Moreover, thermodynamic data on the decomposition of methanol predict reaction velocities some two or three orders of magnitude less than observed, so one must be dealing in practice with the formation of free radicals by a highly developed chain reaction. To support this, high concentrations of ethylene were found (20-50% of ethane) and it is known that in the 634-734°C region there is insignificant cracking of methane; the only alternative plausible source is from recombination of CH_3 radicals. V.V.Voyevodskiy is mentioned in the article for his contribution in this field. Acknowledgments are expressed to N.N.Naymushin for his assistance. There are 3 figures, 6 tables and 16 references: 5 Soviet-bloc and 11 non-Soviet-bloc. The four latest English-language references read as follows: Ref.1: J.A.Barnard, H.W.D. Hughes; Trans.Faraday Soc., 56, 55, 1960; Ref.2: Ibid, 56, 64, 1960; Ref.3: J.A.Barnard, Ibid, 56, 72, 1960; Ref.5: Ibid, 55, 947, 1959.

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

S/020/62/144/004/018/024
B101/B138

AUTHORS: Brodskiy, A. M., Kalinenko, R. A., Lavrovskiy, K. P., Corresponding Member AS USSR, and Shevel'kova, L. V.

TITLE: Mechanism of by-product formation in high-temperature cracking of ethane

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 4, 1962, 817-820

TEXT: Following previous papers and using techniques described therein (ZhFKh, 33, no. 11 (1959); ibid., 34, no. 1 (1960)) the formation of CH_4, C_2H_2, C_3H_8, C_3H_6, C_4H_{10}, C_4H_8, and C_4H_6 during the cracking of ethane at 800-880°C and 90 ± 3 mm Hg with additional 0.45% of ethylene tagged by C^{14} was examined. Corundum or ground quartz was used as a heat carrier. The reaction products were separated by chromatography and their radioactivity was measured. Results: (1) CH_4 showed low activity, indicating that it is formed mainly from C_2H_4 of low activity and from transformation products thereof. About one-half of the CH_4 is formed without the participation of

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CH_3^* by the decay of high-molecular products. (2) The equal degree of activity exhibited by C_2H_2 and C_2H_4 indicates that C_2H_2 is formed with the participation of a C_2H_4 molecule. (3) C_3H_8 and C_4H_{10} had a low content of C^{14}. They are formed by recombination of weakly active CH_3 and C_2H_5 radicals. (4) C_3H_6 and C_4H_8 showed the same activity as C_2H_4. They are not formed from C_3H_8 and C_4H_{10}, respectively, but mainly by the disintegration of C_4H_9 and, at temperatures < 880°C, also by C_2H_3 recombining with CH_3 or C_2H_5. (5) The fact that C_4H_6 (divinyl) is twice as active as C_2H_4 justifies the supposition that it is formed with the participation of 2 molecules of C_2H_4. As $[C_4H_6]$ is larger than corresponds to the equilibrium concentration in the reaction $C_4H_6 \rightleftharpoons C_2H_2 + C_2H_4$, a complex reaction involving free radicals is assumed. (6) The specific activity of the coke at 880°C amounted to one-half the activity of C_2H_4. At this

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L 36482-65 EPF(c)/EPR/EWP(j)/EWT(m) Pe-4/Pr-4/Ps-4 RM/ WW

ACCESSION NR: AP5010561 UR/0204/64/004/005/0691/0699

AUTHOR: Yampol'skiy, Yu. P.; Dvedskiy, A. M.; Kalinenko, R. A.; Lavrovskiy, K. P.

TITLE: Transformations of ethylene at high temperatures

SOURCE: Neftekhimiya, v. 4, no. 5, 1964, 691-699

TOPIC TAGS: ethylene, high temperature phenomenon, reaction mechanism, chemical kinetics

Abstract: The kinetics and mechanism of the thermal transformations of ethylene [illegible] reactor within the temperature range [illegible]

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ACCESSION NR: AP5010561

carrying out the experiments, and to N. Ya. Chernyak for the assistance in the identification of vinyl-acetylene and cyclopentadiene by the method of mass-spectroscopy. Orig. art. has: 1 figure, 8 formulas, 5 graphs, 4 tables.

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

SUBMITTED: 12Mar64 ENCL: 00 SUB CODE: GP, GC

NO REF SOV: 005 OTHER: 012 JPRS

Card 2/2

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000620030005-5

SHEVELEVA, L.V.; BRODSKIY, A.M.; KALIHENKO, R.A.; LAVROVSKIY, K.P.

Mechanism of the formation of some secondary products in the high-temperature cracking of ethane. Kin. i kat. 6 no.4:592-600 Jl-Ag '65. (MIRA 18:9)

1. Institut neftekhimicheskogo sinteza imeni A.V.Topchiyeva AN SSSR.

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KALINENKO, R.A.; BRODSKIY, A.M.

Kinetic scheme of ethane pyrolysis for optimization of ethylene production processes. Kin.i kat. 6 no.5:916-921 S-O '65. (MIRA 18:11)

1. Institut neftekhimicheskogo sinteza imeni Topchiyeva AN SSSR.

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