

ACC NR: AP7005853

SOURCE CODE: UR/0181/66/008/012/3617/3620

AUTHOR: Dutchak, Ya. I.; Stets'kiv, O. P.; Osypenko, V. P.

ORG: L'vov State University im. I. Franko (L'vovskiy gosudarstvennyy universitet)

TITLE: Thermal emf of certain metals and alloys in the liquid state

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3617-3620

TOPIC TAGS: thermal emf, liquid metal, indium base alloy, crystallization, electric conductivity

ABSTRACT: Inasmuch as this subject has not been thoroughly investigated in the past, the authors studied the thermal emf of six metals (Sn, Pb, Zn, In, Bi, Sb) as they go to the crystallization point, and of several liquid alloys of the In-Sn and In-Pb systems. The thermal emf was measured in a temperature range of 100° above and below the crystallization point. The samples were molten in an oven with two heaters, to permit exact control of the temperature differential. The thermal emf was measured with a photorecorder pyrometer and with mirror galvanometers, and the temperature was measured with thermocouples. The results were plotted in such a way that it was possible to obtain continuously the values of the emf coefficients, starting with the instant when both ends of the sample were liquid, to the instant when both solidified. Plots of the absolute thermal emfs of the metals and alloys tested and a table listing the change in the coordination number, the electric conductivity, and the thermal emf of the metals on going from the liquid to the solid state is presented. It is

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concluded tentatively that a definite connection exists between the electric properties and the structure of the indicated alloys in the liquid state. Orig. art. has: 3 figures, 3 formulas, and 1 table.

SUB CODE: 20, 11/    SUBM DATE: 20Jun66/    ORIG REF: 004/    OTH REF: 006

Cont 2/2

S/185/60/005/001/010/018  
A151/A029

AUTHOR: Dutchak, Ya.Y.

TITLE: On the Temperature Dependence of Near Order in Liquid Lead

PERIODICAL: Ukrayins'kyy Fizychnyy Zhurnal, 1960, Vol. 5, No. 1, pp. 94 - 99

TEXT: The paper presents results of a roentgenographic investigation of liquid lead at various temperatures, as well as the results on the "blurring" of the crystal lattice with the determination of the temperature dependence of the structural diffusion coefficient. The roentgenograms were obtained in a vacuum chamber in the copper emission. This emission was subjected to a monochromatic treatment effected with the aid of differential filters. The sample intended for the investigation was placed in a ceramic cup, in which a nickel-chromium heating spiral was installed. A simple device helped to dislocate the cup with the melt in it into vertical direction, which made it possible to keep the surface of the melt in a fixed state. The temperature of the melt was measured by means of a chromel-alumel thermocouple. The body of the chamber and the cassette were cooled by running water. It was possible to replace the cassette containing the film, in consequence of which a series of roentgenograms could be ob-

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## On the Temperature Dependence of Near Order in Liquid Lead

tained on one film. The roentgenograms were then micro-photometered on a MF-2 (MF-2) visual micro-photometer. The investigation of the liquid lead was conducted at temperatures of 330, 360, 380, 405, 425 and 450°C. The intensity of the dispersion of X-rays by liquid lead were obtained which are characterized by three maxima. The shape of these maxima changes with a temperature increase. A determination was also made of the radial distribution curves which are characterized by maxima in the case of  $r = 3.44 \text{ \AA}$  and  $r = 4.94 \text{ \AA}$ . With a temperature rise these maxima descend and become wider. Both the intensity and radial distribution curves were determined for liquid lead at various temperatures. It has also been ascertained that, close to the melting temperature, the coordination number of liquid lead is 11.4 and the radius of the coordination sphere  $3.44 \text{ \AA}$ . A rise in the temperature of liquid lead causes a decrease in the coordination number. Following from the results of the "blurring" of the lattice, it can be said that the structure of liquid lead is characterized by a cubic tightly-packed lattice. It can be seen that the structural diffusion coefficient increases with a temperature increase. This increase agrees with the decrease in the coordination number. In closing, the author expresses his gratitude to Professor A.Yu. Glauberman and Docent O.M. Muzychuk for their valuable instruc-

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S/185/60/005/001/010/018  
A151/A029

On the Temperature Dependence of Near Order in Liquid Lead

tions and advice, as well as to the student I.I. Marchak for the assistance rendered in the course of this experiment. There are 4 figures and 12 references: 4 Soviet, 5 English, 2 German and 1 unidentified.

ASSOCIATION: L'vivs'kyy derzhavnyy universytet im. Iv. Franka (L'viv State University imeni Iv. Franko)

SUBMITTED: June 20, 1959

Card 3/3

DUTCHENKO, P.N., gornyy inzh.

Efficient use of the capacities of 167A-SE-PE separators at the  
Krivoy Rog Southern Mining and Ore Dressing Combine. Gor. zhur.  
no.6:71-73 Je '63. (MIRA 16:7)

1. Yuzhnyy gornoobogatitel'nyy kombinat, Krivoy Rog.  
(Krivoy Rog Basin--Separators (Machines))

GHELERTER, Iuliu, conf.; DUTESCU, B. dr.

Humanism and medicine. Med. intern. 15 no.3:257-261 Mr '63.  
(PHILOSOPHY, MEDICAL)

ROMANIA

DUTESCU, B., MD.

Bucharest, Viata Medicala, No 19, 1 Oct 63, pp 1357-1359

"The Social and Political Attitude of Gh. Marinescu."



DRAGOMIRESCU, D.; DUTESCU, Gh.; MARINESCU, L.; NEAGU, D.; RADULESCU, C.

Establishing optimum conditions for the work with a Wilson chamber. Studii cerc fiz 13 no.3:479-483 '62.

1. Institutul de fizica atomica, Bucuresti.

DUTESCU, N.

RUMANIA/General Problems of Pathology - Tumors.

T-5

Abs Jour : Ref Zhur - Biol., No 1, 1958, 3182  
Author : Dutescu, N., Timosca, Gl., Mrma, I.  
Inst :  
Title : Mixed Tumors of the Hard and Soft Palate.  
Orig Pub : Stomatologia, 1956, 3, No 3, 230-238  
Abstract : No abstract.

Card 1/1

MATEESCU, N.; DUTESCU, N.

A device for measuring diffusion length of the neutrons in liquids.  
Studii cerc fiz 12 no.3:661-666 '61.

1. Institutul de fizica atomica, Bucuresti.

(Neutrons) (Diffusion) (Liquids)

RUMANIA / Human and Animal Morphology, Normal and Pathological. S  
Digestive System.

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 35917

Author : Dutescu, N.; rusu, M.

Inst : ~~Not given~~

Title : Statistical Data Concerning Odontogenetic Cysts of the  
Jaws.

Orig Pub : Stomatologia, 1957, 4, No. 3, 257-262

Abstract : Not given

Card 1/1

EXCERPTA MEDICA Sec 9 Vol 13/6 Surgery June 59

3153. CONSIDERATIONS ON THE TREATMENT OF FISTULAE OF THE  
PAROTID GLAND - Considerații asupra tratamentului fistulelor glandei  
parotide - Dutescu N., Rusu M., Timosca Gh. and Haimovici  
A. Clin. Stomatol., Inst. de Med., Iasi - REV. MED. CHIR. IAȘI 1958, 62/2  
(305-309)

In three cases recovery was obtained by using atropine, cauterizations and X-ray  
therapy, in small doses.

ILIESCU, C.C.; IANOVICI, M.; DUTESCU, N.; IONESCU, V. Th.

Laboratory electromagnet for intense fields. Studii cerc fiz 14,  
no.1:57-72 '63.

1. Institutul de fizica atomica Bucuresti.

DUTIKOV, A. P.

Brigade cost accounting in the shaped steelcasting shop. Lit. proiz.,  
No 5, 1952.

DUTIKOV, A.P.

Reducing losses in steel smelting. Lit.proizv. no.8:l-2 H '54.  
(Steel castings) (MIRA 8:1)



DUTIKOV, N. I.

AUTHOR: Dutikov, N.I., Engineer

128-58-4-1/18

TITLE: Foundries in the Gor'kiy Economic Administrative Region  
(Liteynnye Tsakhi Gor'kovskogo ekonomicheskogo administrativ-  
nogo rayona)

PERIODICAL: Liteynoye Proizvodstvo, 1958, No. 4, pp 1-2 (USSR)

ABSTRACT: General information is given on the present state of the foundries in the Gor'kiy Administrative Region and activities of the Gor'kiy Sovnarkhoz, which administers about 400 industrial and construction enterprises. The Sovnarkhoz-organized inspections of the 65 foundries revealed lack of mechanization, poor utilization of equipment, delayed reconstruction, a wages system giving no incentive to skilled workers such as molders, gas and dust polluting the air in the foundries and impairing health. The yearly production per square meter of floor space is on an average 0.6-0.8 t, and per worker 15-25 t (17.2 t at the Plant imeni Sverdlov, 20 t at the Plant imeni Vorob'yev, 16 t at the "Dvigatel' Revolyutsii"). Only 27% of molding work is mechanized at the "Teplokhod" and only 10% at the "Vtorchermet", etc. In numerous foundries net production cost per ton of cast iron amounted to

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Foundries in the Gor'kiy Economic Administrative Region

128-58-4-1/18

60 to 120 man/hrs, or 1,800 to 2,500 rubles. Measures planned by the Sovnarkhoz include improvement of working conditions and offering incentives through bonuses. Special designer groups are being employed to promote mechanization, and modernization. It is planned to use chemically-hardening mixtures for water glass for molds and cores, to use sand blasting and sand-jet methods for ramming molds and cores, to utilize experiences gained by leading Soviet and foreign foundries. The planned production increase for the next 3 years is: 36% in cast iron, 30% in malleable cast iron, 15% in steel, 40% in non-ferrous metal castings. Pre-heated cupola blast will be introduced this year at many foundries.

AVAILABLE: Library of Congress

Card 2/2

1. Industrial engineering 2. Economic conditions-USSR

DUTIKOV, S. S.

AUTHORS: Dutikov, S.S.; Shevelev, A.A.; Vaytaman, V.M., Engineers  
and Vnukov, A.K., Candidate of Technical Sciences 91-58-7-6/27

TITLE: Exchange of Experience (Obmen opytom). The Automated Operation of Mills (Avtomatizatsiya raboty mel'nits).

PERIODICAL: Energetik, 1958, Nr 7, pp 19-20 (USSR).

ABSTRACT: In 1957, 5 drum ball mills (4 mills of "Sh-16" type and 1 biconical mill of "ShK-25" type) were automated according to the design suggested by Yuzhnoye otdeleniye ORGRES (the "ORGRES" South Branch Office). The following equipment was utilized: electronic controllers of "ER-III" type on 2 mills and electromechanical direct feedback columns of the "Energodetal' " plant on 3 mills. Their structural details and operation are described. The first experimental service of this automated system proved its operational stability and wide control range, as well as easy maintenance. The various requirements to be met for automating mills, such as good dust system, continuous aeration etc. are

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Exchange of Experience

91-58-7-6/27

outlined. The "dust level" automation of mills must guarantee a decrease in consumption of electric energy for the preparation of pulverized coal by 3 to 4 kwh per ton of milling. There are 2 diagrams.

1. Ball mills--Operation
2. Ball mills--Electronic controls

Card 2/2

BARANOVA, S.I.; DUTIKOVA, N.A.

They reached the threshold of 1965. Tekst.prom. 20 no.6:89  
Je '60. (MIRA 13:7)  
(Vladimir Province--Textile industry)

SKERLAK, Tibor; SKUNDRIC, B.; DUTINA, P.

Electromotive forces of concentration cells in dimethylsulfoxide. Glasnik hemicara BiH 11:53-57 '62.

1. Laboratory of Physical Chemistry, Chemical Institute, University of Sarajevo.
2. Membre du Comite de redaction, "Glasnik Drustva hemicara i tehnologa SR Bosne i Hercegovine" (for Skerlak).

1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025

*(The following text is heavily obscured and largely illegible due to significant noise and scanning artifacts.)*

DUTKA, F.

Hungarian Technical Abstr.  
Vol. 6 No. 1  
1954

13. The chemistry of benzene sulfonic acids -- Adatok a benzolsulfonát-kémiaiához -- L. Szekeres and F. Dutka. (Journal of the Hungarian Chemical Society -- Állagys Kémikusok Lapja -- Vol. 8, 1953, No. 3, pp. 92-93, 4 tabs.)

The authors established that the redox potential values of the benzene sulfonic-benzene sulfonic ion system and of the iodine-iodide ion system are very close to each other. Statements in literature also verify that benzene sulfonic acid can be oxidized with iodine at 95°C. Bromine oxidizes benzene sulfonic acid quantitatively into benzene sulfonic acid and this reaction was found suitable at the same time for the determination of benzene sulfonic acid. It was established, moreover,

that the sodium salt of benzene sulfonic acid is stable on air, however, oxidation and disproportionation occur in an acid solution. It was proven that not only bromine solutions but bromic acid, potassium permanganate and potassium carbonate solutions can also be measured volumetrically directly with a solution of the sodium salt of benzene sulfonic acid in acid media.

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Derived

HUNGARY

N-phenyl-2-aminopyridine XI. Single preparation  
 of the *racemic* form of 1-octadecanamide,  $C_{18}H_{37}NO_2$ ,  
 (m.p. 41-42°C, b.p. 170-171°C,  $n_D^{20} 1.461$ )  
 (lit. m.p. 47-48°C, b.p. 170-171°C,  $n_D^{20} 1.461$ )  
 (17.5 g, 0.1 mole) was dissolved in 100 ml. of  $CH_2Cl_2$ .  
 The solution was cooled to 0°C and 10 ml. of  
 concentrated sulfuric acid was added. The mixture was  
 stirred for 24 hrs. and then poured into 500 ml. of  
 water. The mixture was stirred for 24 hrs. and  
 then filtered. The residue was washed with 100 ml. of  
 water and then dried *in vacuo* at 40°C. The residue  
 was slowly reprecipitated from  $CH_2Cl_2$  (5 hrs.), and a solution of the residue  
 in 500 ml. of  $CH_2Cl_2$  (at -15°C) washed with three 100 ml.  
 portions of ice H<sub>2</sub>O. Attempted distn. at 0.5 mm. and  
 700 gm. dried ( $MgSO_4$ ) and C treated, crude  $C_{18}H_{37}NO_2$   
 (II) caused decomposition. II (515.2 g.) was added (3-5  
 hrs.) to 527 g.  $N_2CHCO_2Et$  (III) and the mixt. kept over-  
 night at 20°C, then warmed at 30-5°C until  $N_2$  evolution ceased  
 (4-5 hrs.), giving 615 g. crude  $C_{18}H_{37}NO_2CO_2Et$  (IV),  
 m. 43-52°C, crystd. from EtOH, m. 58-9°C. Crude IV in  
 1500 ml. alc. treated with 36.5 (sic) ml. 8.98% alc. HCl  
 (0.9 moles) was hydrogenated with 40 g. 11.1% Pd-C pre-  
 reduced in 600 ml. alc., coned. 1/3, and chilled, giving 77.5 g.  
 ppt.; further concn. gave an addnl. 32.3 g. Two crystals  
 from EtOAc (10 g./30 ml.) gave *rac*- $C_{18}H_{37}COCH(NH_2)$   
 $CO_2Et$  (V) HCl salt, m. 114-16°C (from alc.); V.HBr, m.  
 111-12.5°C. IV in hexane with Pd-C was hydrogenated to  
 Et 2,6-dipentadecylidihydro-3,5-pyrazinedicarboxylate (VI),  
 m. 73-4°C (from alc.). V.HBr (0.84 g.) and 0.16 g. NaOAc  
 in 15 ml. H<sub>2</sub>O treated 10 min. with 2.64 g.  $Ac_2O$  gave VI.  
 A mixt. of 27 ml.  $Ac_2O$ , 35 g. AgOAc, 75.57 g. V.HCl, and  
 600 ml. MeOH shaken 5 hrs. in the dark, boiled 5-10 min.,  
 filtered hot, and the filtrate chilled gave 62.2 g. crude *rac*-  
 $C_{18}H_{37}CO_2Et$  (VII), m. 63-8°C, crystn. from

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... ml. hexane yielded 83 g. of crude  
V HCl gave 71.5% crude VII  
phenylhydrazine in 50 ml. of  
NaBH<sub>4</sub> in 50 ml. cold Me<sub>2</sub>SO  
added (15-20°) 7.5 g. IV  
the mixt. treated after 12 hrs. at  
extd. with five 50-ml. portions of Me<sub>2</sub>SO  
ext. gave fac 5.10 g. with 10-15% of  
three- and four-membered rings  
CO<sub>2</sub>H VIII HCl ext. in Me<sub>2</sub>SO  
larly VII with NaOH, gave 10% of IX  
VIII in 50 ml. Me<sub>2</sub>SO  
AgOAc gave IX IX  
A mixture of VIII  
NaOH, 50 ml. Me<sub>2</sub>SO  
H<sub>2</sub>O, dried Me<sub>2</sub>SO  
in 50 ml. Me<sub>2</sub>SO  
C<sub>6</sub>H<sub>5</sub>CH(OH)Cl  
The dried Me<sub>2</sub>SO  
IX  
IX  
IX

added (10-15°) to 45.6 g. III in 40 ml. petr. ether, and the mixt. kept 1 day at 0° and 2 days at 20°, then treated with 19.7 g. pyridine in 50 ml. petr. ether, the 1-carbethoxy-4-methylpyridinium bromide (41.3 g.) which pptd. m. 112-15° (from  $\text{CHCl}_3$ ). The filtrate, washed with three 30-ml. portions of  $\text{H}_2\text{O}$ , five 30-ml. portions of 10%  $\text{HCl}$ , and three 30-ml. portions of  $N \text{ KOH}$ , dried ( $\text{MgSO}_4$ ), concd. *in vacuo*, and the residue (65.5 g.) crystd. at 0° and dried on a cold clay plate gave 44.8 g.  $\text{C}_{12}\text{H}_{16}\text{COCH}_2\text{CO}_2\text{Et}$  (XIII), m. 35-8° (from  $\text{EtOH}$ ). XIII hydrogenated in  $\text{HBr-EtOH}$  gave V.HBr.  
George L. Sutherland.

DOTRA, F.

14. Stereochemical and synthetic studies in the sphingosine  
field. XIII. Preparation of DL-threo-2-acetamido-1,3-di-  
acetoxy-octadecane (in English) I. S. ALIYEV  
Dokl. Akad. Nauk Azerb. SSR Ser. Khim. Nauk  
1974, Vol. 5, No. 3, 149-150  
The authors prepared and studied  
the DL-threo-2-acetamido-1,3-di-  
acetoxy-octadecane and its  
derivatives.

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#1  
WAT

DUTKA, F.

HUNGARY/Organic Chemistry - Natural Substances and Their  
Synthetic Analogues.

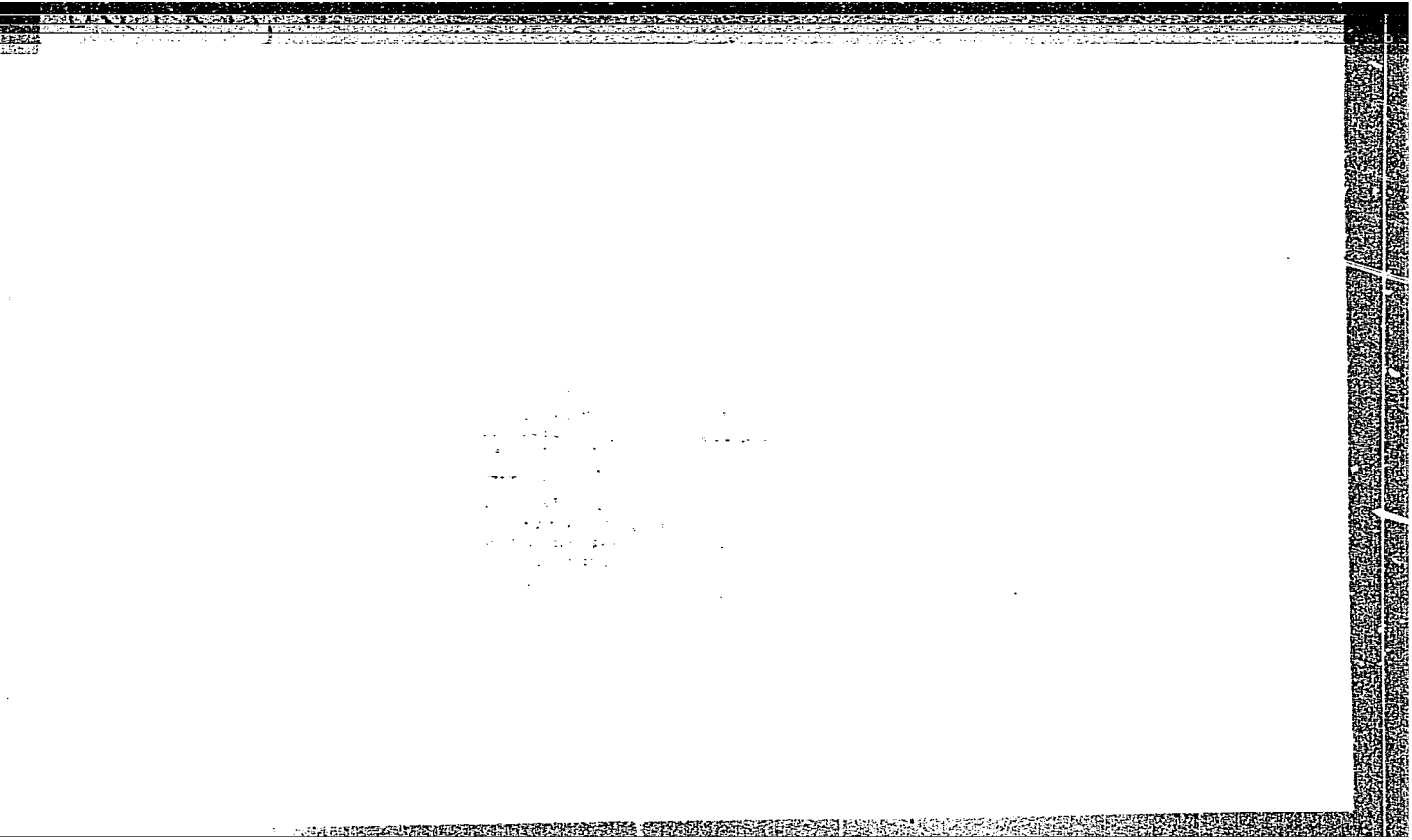
G-3

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 21601  
Author : G. Fodor, I. Sallay, F. Dutka  
Inst : -  
Title : Quaternary Ammonium Salts Derived of (-)-Lupinine.  
Orig Pub : Acta phys. et chem. Szeged, 1956, 2, No 1 -4, 77-79

Abstract : The configuration of the oxymethyl group with respect to the N atom in (-)-lupinine (I) was studied. Epimer iodides were prepared by the action of  $\text{CH}_2\text{ICOOCH}_2\text{H}_5$  (II) on I.

The epimer (III), melting point  $154^\circ$ ,  $[\alpha]_D^{24} = -49.06^\circ$  ( $c = 1.591$ ), was prepared at about  $20^\circ$  of 1.07 g of I and 1.284 g of II in 3 mlit of absolute  $\text{C}_6\text{H}_6$ . The epimer (IV), melting point  $148$  to  $150^\circ$ ,  $[\alpha]_D^{24} = -84.76^\circ$  ( $c = 1.05$ ), was obtained of 0.354 g of I and 0.428 g of II in

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Distr: 4E3d/4E3c

6  
2-may  
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Kinetics of isotopic exchange reactions of alkyl iodides.  
D. Gál and F. Dútska (Agrochem. Research Inst., Buda-  
pest, Hung.). Naturwissenschaften 45, 183 (1958) (in Eng-  
lish).—Preliminary note. The kinetics of the isotopic ex-  
change was measured between EtI, BuI, and PrI and KI,  
labeled with  $^{131}\text{I}$ . The presence of aniline inhibited the ex-  
change process. The rate consts., and energies of activa-  
tion were: EtI  $46.7 \times 10^{11}$  l./mol. sec., 0 cal./mole; PrI  
/ 25.7, 391; BuI 14.6, 757. F. Schossberger

DUTKA, F

✓ Study of organic reactivity by <sup>131</sup>I radioactive isotopes.  
Derso Gál, Ferenc Dutka, László Guczi, Imre Kende, and  
László Koch. *Magyar Kém. Folyóirat* 64, 191-6 (1968).—  
Isotope exchange reactions between <sup>131</sup>I labeled KI and Et,  
Pr, Bu, phenethyl, 3-phenylpropyl, and 4-phenylbutyl io-  
dides were followed by detn. of the sp. activity of the org.  
iodide. Concns. of org. iodide were 0.2 mole/l. and of  
KI, 0.105 mole/l., in abs. alc. soln. The addn. of aniline  
to the mixt. inhibited isotope exchange; this was attributed  
to reaction with the org. radical resulting in splitting of the  
iodine atom from the structure. Desorption of the org. io-  
dides from red P and active C was studied with a differential  
manometer and a counter. Graphs of the data showed that  
there was a const. value of activation energy for a given sur-  
face at a given temp. On the surface of red P there were at  
least 3 adsorption zones of different heats of adsorption. At  
the highest energy-level, there was rupture of the C—I bond,  
the liberated iodine atom forming P iodides with the adsorb-  
ent. At an intermediate energy-level, the C—I rupture  
still occurred with the iodine atom moving to the lowest  
energy level, at which the C—I bond remained stable and an  
alkyl iodide polymer formed and inhibited sp. activity of the  
adsorbent. Desorption from active C also started from  
zones of min. adsorption heat but sp. activities fluctuated  
considerably and desorption was reversible. An abs. alc.  
soln. of the org. iodides was shaken with a known amt. of  
active C for a few days until adsorption equil. was attained,  
the adsorbent filtered off and mixed with alc. soln. of KI,  
measuring the increase of <sup>131</sup>I activity of the soln. The  
extent of isotope exchange between org. iodides adsorbed on  
C and KI was the same. With red P, however, no exchange  
was observed. Chem. reaction took place during adsorp-  
tion on red P. Relevant kinetic data were tabulated and  
shown graphically. J. S. Cook



DUTKA, F.

Distr: 4E2c(j)

Kinetics of styrene oxidation in the presence of labeled benzaldehyde. F. Dutka and D. Cál (Hungarian Acad. Sci., Budapest). *Atompraxis* 5, 445(1959)(in English).— The mechanism of styrene oxidn. by O at 70° and 760 mm. Hg was investigated. The role of BzH, the main intermediate, was examd. using a kinetic isotope method, by adding C<sup>14</sup>-labeled BzH to the system. The rate of formation of BzH was much larger than that of its further oxidn. Addn. of pyridine increased the amt. of BzH produced.

R. S. Kahaw

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1- pag (1/2)  
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zlw

DUTKA, F.

✓ Application of radioactive isotopes in studying the mechanism of oxidation processes. I. Reactions in the gas phase. <sup>9</sup> <sub>6</sub>  
Dezso Gál, Imre Kende, Ferenc Dutka, and László Guzi  
(Magyar Tudományos Akad., Budapest). *Magyar Kém. Folyóirat* 65, 249-52 (1959).—The oxidn. of hexane in the gas phase was studied by inhibiting the reaction with styrene-1-<sup>14</sup>C. The products were frozen out, at various stages of the reaction. From the intermediate compds., the aldehydes were pptd. as dimedon derivs. and CO<sub>2</sub> was absorbed in Ba(OH)<sub>2</sub>. The concn. and sp. activity of the individual products were detd. The C atom of styrene, adjoining the benzene ring, was found to detach during the reaction and was observed to enter into the reaction products indicating that the inhibitor decompd. in the course of its function. The oxidn. of gaseous <sup>14</sup>C-labeled AcH was studied in a similar manner and it was established that the <sup>14</sup>C<sub>2</sub>H<sub>5</sub> part of the AcOH formed, further oxidized into CO<sub>2</sub>. This finding explained the function of AcOH as catalyst in the oxidn. of AcH. <sub>11</sub>  
G. J. Brycki

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/ The use of radioactive isotopes for studying the mechanism of some oxidation processes. II. Dezso Gál, Ferenc Dutka, László Guzzi, and Imre Kende (Magyar Tudományos Akad. Talajtani és Agrokémiai Kutató Intézet, Budapest, Hung.). Magyar Kém. Folyóirat 65, 294-8 (1959); cf. C.A. 54, 6525g.—The mechanism of oxidn. of styrene (I) and of mercaptoacetic acid (II) was investigated. The kinetic isotopic method was applied in both cases. Use of isotopic-labeled BzII showed that during the oxidn. of I by O (at 70°, in the absence of light) the accumulation of BzII is considerable but the further oxidn. of BzII is negligible. An early intermediate oxidn. product probably is the inhibitor. The formation of BzII is strongly catalyzed and the further oxidn. inhibited by pyridine. The 1st action is the stronger one. The oxidn. of II was studied at 50°, pH 8, in solns. contg. 0.1867M II and 0.001M Complexon IV for the elimination of heavy metal salts. The rate of the sulfide formation increases parallel to the increase in the rate of O uptake. As the process is strongly catalyzed by sulfide (contg. S<sup>2-</sup>), the rate-detg. step of the O uptake probably is the sulfide formation. Presumably the oxidn. proceeds to thiosulfate. The oxidn. of sulfide is of 1st order. B. Kasztreiner

4p  
4  
1  
Caa

Baro

7  
✓ Measurement of radioactive carbon ( $C^{14}$ ) with a gas counter. Ferenc Dutka, Otto Orient, and Dezso Gál (Izotóp Lab., Budapest, Hung.). *Magyar Kém. Folyóirat* 65, 328-9(1959).—A method is described for the measurement of

radioactive  $C^{14}$  in a Geiger counter. The  $C^{14}$  is introduced into the counter in the form of  $CO_2$  after liberation from  $BaCO_3$ . The discharge is quenched by addn. of EtOH and by use of an external quenching circuit (Neher-Harper). The plateau obtained is 240 v. long and the slope is less than 0.5%. The background of the unprotected counting tube is of the order of 50 counts/min. and the memory effect is negligible. Ernest J. Breda

4  
Breda

GAL, Dezso; KENDE, Imre; DUTKA, Ferenc; GUCZI, Laszlo

Application of radioactive isotopes in the examination of the mechanism of some oxidation reactions. Pt. 1. Magyar kem folyoir 65 no. 7:249-252 J1 '59.

1. Magyar Tudomanyos Adademia Talajtani es Agrokemiai Kutato Intezete Izotop Laboratoriuma, Budapest.

DUTKA, Ferenc; ORIENT, Otto; GAL, Dezso

Measuring radioactive carbon ( $C^{14}$ ) by gas counter. Magyar kem  
folyoir 65 no. 8:328-329 Ag '59.

1. Magyar Tudomanyos Akademia Talatani es Agrokemiai  
Kutato Intezete Izotop Laboratoriuma, Budapest.

GAL, Dezso; DUTKA, Ferenc; GUCZI, Laszlo; KENDE, Imre

Application of radioactive isotopes in the examination of the mechanism of some oxidation reactions. Pt. 2. Magyar kem folyoir 65 no. 8:294-298 Ag '59.

1. Magyar Tudomanyos Akademia Talajtani es Agrochemiai Kutato Intezete Izotop Laboratoriuma, Budapest.

DUTKA, F.

reports to be presented at the 2nd Intl Congress on Catalysis, Paris, France, 4-9-Jul '60.

Czechoslovakia

BERANEK, I., and BAZANT, V. - "The mechanism of the dehydration of alcohols on alumina" (Section II)

DMEK, V. - "Study of the characteristics of powder catalysts during their operation" (Section II)

DMEK, V. - "Release of active sites from inert gases from surface reactions" (Section II)

JEDLI, J., and MALINA, V. - "The influence of metal sulfates on the catalytic oxidation of sulfur dioxide" (Section II)

DMEK, O., and DMEK, V. - "Investigation of a new method of the formation of catalysts" (Section II)

KUBI, E. - "Contribution on the mechanism of chemisorption of carbon monoxide on carbon dioxide on nickel oxide" (Section II)

KRUMHOLZ, V., and MALINA, V. - "Contribution to the characteristics of systems for catalytic activity on nickel sized catalytic agents" (Section II)

RYLAND, J. - "Thermal decomposition of some catalysts" (Section II)

FRISK, V., and KUBI, E. - "Adsorption on evaporated metal films" (Section II)

MALIK, M. - "Magnetic investigations of nickel based catalysts" (Section II)

Germany

KUCHEL, E., KILBE, P., de JONGE, J. - "The oxidation of sulfur dioxide in a fluidized bed of nickel oxide" (Section II)

OML, HANS, and MALIK, M. - "Studies on catalytic styrene polymerization" (Section I)

SEIB, E. G., and KILBE, P. - "Influence of the defect structure of supporter on the activity of catalyst" (Section II)

SEIB, E. G., and MALIK, M. - "Mechanism of the influencing of nitric oxide in the thermal decomposition of propionic aldehyde" (Section I or II)



DUTKA, F.; ORIENT, O.; GAL. D.

Measuring radioactive coal (C<sup>14</sup>) by gas meter; a short communication. p. 328.

MAGYAR KÉMIAI POLYGIRAT. (Magyar Kemikusok Egyesülete) Budapest, Hungary  
Vol. 65, no. 8, Aug. 1960

Monthly List of East European Accession (EEAI), LC, Vol. 9, no. 2, Feb. 1960

Uncl.

DUTKA, Ferenc

An account of my study trip to Czechoslovakia. Kem tud kozl  
18 no.3:499-501 '62.

1. Magyar Tudomanyos Akademia Kosponti Kemiai Kutato Intezete,  
Budapest.

DUTKA, Ferenc

An account of my study trip to Poland. Kem tud kozl MTA 21  
no. 4:465-467 '64.

1. Central Research Institute of Chemistry, Hungarian Academy  
of Sciences, Budapest.

FODOR, G.; URESCH, F.; DUTKA, F.; SZELL, T.

Lactonization and ring inversion in the pyrrolizidine series.  
Coll Cz Chem 29 no.1:274-279 Ja'64

1. Stereochemical Research Laboratory, Hungarian Academy of Sciences, Budapest (for Fodor and Uresch). 2. Central Institute of Chemistry, Hungarian Academy of Sciences, Budapest (for Dutka). 3. Department of Applied Chemistry, University, Szeged (for Szell).

L 17635-66 EWP(j) RM

ACC NR: AT 6009210

SOURCE CODE: HU/2502/65/043/001/0053/0061

AUTHOR: Otvos, Laszlo--Etvosh, L.; Dutka, Ferenc; Tudos, Helga--Tyudesh, Kh. 33

ORG: Central Research Institute for Chemistry, Hungarian Academy of Sciences, Btl  
Budapest

TITLE: Investigations with radioactive acetic anhydride. Part 3: Examination of  
the acyl group exchange reactions of carboxylic acid derivatives with acetic  
anhydride

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 43, no. 1, 1965,  
53-61

TOPIC TAGS: acetic anhydride, tracer study, carbon, alcohol, acetate, amine,  
pyridine, ester, chemical reaction

ABSTRACT: Acetates of se-  
condary, primary, and tertiary alcohols and N-acetylated amines  
were treated with C-14 labeled acetic anhydride in the presence of  
pyridine or of aluminum chloride. The esters of tertiary alcohols  
and also diacyl amines were shown to undergo an acyl exchange under  
these conditions with the anhydride by incorporation of radioactive  
carbon. The mechanism of the process was discussed. Orig. art. has: 4 figures  
and 3 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 015  
Card 1/1 FW

GELEJI, Frigyes; DUTKA, Gyorgy

Fiber formation from polypropylene. Magy textil 15 no.11:  
506-507 '63.

1. Muanyagipari Kutato Intezet.

DUTKA, L.

Hydrologic Laboratory of the Breslau Polytechnic. (To be contd.)

p. 362 (Gaz, Woda I Technika Sanitarna. Vol. 31, no. 10, Oct. 1957. Warszawa, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,  
February 1958

1966 3 1966

The purpose of this study is to identify the various factors that influence the performance of the system. The study is based on a review of the literature and a series of interviews with experts in the field. The results of the study indicate that the most important factors are the quality of the input data, the accuracy of the model, and the skill of the operator. The study also identifies a number of potential areas for improvement, including the use of more sophisticated models and the training of operators.



DUTKA, St.: & WOJNAR, J.:

POLAND

"Achievements and Goals of the Petroleum Industry," Nafta, Stalinogrod, Jan 56.

DUTKA, S.

DUTKA, S. Having achieved the purpose of the 6-Year Plan we now begin the 5-Year Plan. p. 1, Vol. 12, no. 1, Jan. 1956. NAFTA Krakow, Poland.

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

L 30133-66 EWP(j)/T RM/WW/JW/WE

ACC NR: AP6020350

SOURCE CODE: RU/0003/65/016/008/0366/0371

AUTHOR: Dutkai, E.

ORG: CHIMIGAZ Institute, Medias (Institutul CHIMIGAZ)

41  
B

TITLE: Electric-arc pyrolysis of a mixture of methane and higher paraffin hydrocarbons and the utilization of the sensible heat of cracked gases

SOURCE: Revista de chimie, v. 16, no. 8, 1965, 366-371

TOPIC TAGS: acetylene, methane, butane, pyrolysis

ABSTRACT: The author reports on some tests aiming at the reduction of the electric power consumption involved in the preparation of acetylene by means of the electric-arc pyrolysis of methane. The tests concerned the introduction of a methane-butane mixture into the pyrolysis reactor and the use of the heat of cracked gases for the pyrolysis of some petroleum-type liquid hydrocarbons. Orig. art. has: 6 figures and 1 table. [Based on author's Eng. abstract] [JPRS]

SUB CODE: 07 / SUBM DATE: none / OTH REF: 011

Card 1/1 CC

UDC: 662.766.4.092.193

DUTKEVICH, I.G. (Leningrad, Vasil'yevskiy ostrov, 20-ya liniya, d.13,  
kv.56)

Morphological changes in the blood vessels in thrombo-obliterative  
diseases of the lower extremities. Vest.khir. no.4:46-52 '61.

(MIRA 14:4)

1. Iz kliniki obshchey khirurgii 1-go Leningradskogo meditsin-  
skogo instituta im. I.P. Pavlova i khirurgicheskoy kliniki Lenin-  
gradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'-  
skogo instituta perelivaniya krovi (nauchn. rukovod. - prof.  
A.N. Filatov).

(ARTERIOSCLEROSIS) (THROMBOSIS)

DUTKEVICH, I.G. (Leningrad, B. O. ~~20~~ya liniya, d.13, kv.56)

Indications for restorative operations in thrombo-obliterating arterial diseases of the lower extremities in the light of clinical and anatomical comparisons. Vest.khir. no.8:40-45 '61.  
(MIRA 15:3)

1. Iz kliniki obshchey khirurgii 1-go Leningradskogo meditsinskogo instituta im. I.P. Pavlova i khirurgicheskoj kliniki (sav. - prof. A.N. Filatov) Leningradskogo instituta perelivaniya krovi.  
(ARTERIES--DISEASES) (EXTREMITIES, LOWER--DISEASES)

GOLOVIN, G.V., prof. (Leningrad); DUTKEVICH, I.G., kand.med.nauk (Leningrad)

Review of H. Gelbke's book "Restorative and plastic surgery." Vest.  
khir. 92 no.3:148-152 Mr '64. (MIRA 17:12)

DUTKEVICH, I.G. (Leningrad, V-26, 20-ya liniya, 13, kv.56); MEDVEDEV, P.M.

Anesthesia in extensive operations for elephantiasis. Vest.  
khir. 92 no.4:97-101 Ap '64 (MIRA 18:1)

1. Iz khirurgicheskoy kliniki (zav. - prof. A.N. Filatov)  
Leningradskogo ordena Krasnogo Znameni nauchno-issledovatel'-  
skogo instituta perelivaniya krovi (direktor - dotsent A.D.  
Belyakov).

LIDSKIY, A.T., prof., zasluzhennyy deyatel' nauki; VEKSLER, G.Ya., dotsent (Sverdlovsk); NAPALKOV, P.N., prof., zasluzhennyy deyatel' nauki (Leningrad); SATIN, Petko D. (Sofiya, Bolgariya); GOLOVIN, G.V., prof.; DUTKEVICH, I.G., kand. med. nauk (Leningrad); KHROMOV, B.M., prof. (Leningrad)

Reviews. Vest. khir. 93 no.8:125-141 Ag '64.

(MIRA 18:7)

1. Ghlen-korrespondent AMN SSSR (for Lidskiy).



DUTKEVICH, Yu. G.

Representation of a surface by its support function. Vest.  
IGU 18 no.1:53-58 '63. (MIRA 16:1)

(Surfaces)

DUTKEVICH, Yu.G.

On the inclination of the chords of a curve and the inclination  
of its contingency rays. Vest. IGU 17 no.19:16-25 '62.

(MIRA 15:10)

(Curves on surfaces)

DUTKAY, L.

Experiences from compulsory delivery. p. 6.  
The piston and gas turbines. Tr. from the Russian. p. 7.  
AUTO MOTOR, Budapest, Vol. 8, no. 16, Aug. 1955.

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

LEDOCHOWSKI, Zygmunt; LEDOCHOWSKI, Andrzej; CHIMIAK, Andrzej; DUTKIEWICZ, Barbara; BOGUCKA, Maria; WYSOCKA, Barbara; SKOŁOWSKA, Teresa; WASIELEWSKI, Czesław; STEFANIAK, Lech

Research on tumor-inhibiting compounds. I. Synthesis of some N,N-dimethyl-1, n-diaminoalkanes. Roczniki chemii 33 no.6:1291-1298 '59. (EBAI 9:9)

1. Katedra Technologii Środków Leczniczych Politechniki, Gdańsk i Pracownia Nr 8 Zakładu Syntezy Organicznej Polskiej Akademii Nauk Gdańsk.

(Tumors) (Amino group) (Paraffins) (Methyl group)

CZAJKA, Wladyslaw, mgr inz.; DUTKIEWICZ, Daniel, mgr inz.

Trawling arrangements as applied in the m.t. Kastor factory  
trawler. Bud okretowe Warszawa 8 no.5:169-171 My '63.

1. Morski Instytut Rybacki, Gdynia.

WOJCIAK, Wacław; DUTKIEWICZ, Edward

Studies on changes in the properties of lyophilic substances  
by damping the polarographic maxima. Prace matem przyrod  
Poznan 10 no.2:89-97 '62.

1. Department of Physical Chemistry, Adam Mickiewicz  
University, Poznan.

DUTKIEWICZ, Edward

Influence of certain lyophile systems on the differential capacity of the electric double layer at the boundary between the phases: mercury/electrolyte. Mat chemia no. 7:43-60 '63.

1. Katedra Chemii Fizycznej, Uniwersytet im. Adama Mickiewicza, Poznan.

DUTKIEWICZ, Edward, dr. adiunkt

Certain properties of the electric double layer in the light  
of recent theoretical and experimental studies. Wiad chem  
17 no.12:739-751 D'63.

1. Katedra Chemii Fizycznej, Uniwersytet im. Adama Mickiewicza,  
Poznan.



DUTKIEWICZ, J.

"The Pearl Mussel (*Margaritifera margaritifera* L.) a vanishing species."

p.19 (Chronmy Przyrode Ojczysta, Vol. 14, No. 4, July/Aug. 1958. Kradow, Poland.)

Monthly Index of East European Accessions (EEAI) LC, Vol 8, No. 1, Jan. 59

DUTKIEWICZ, J.

"The caribou is facing extermination"

p. 19 (Chronmy Przyrode Ojczysta, Vol. 14, no. 5, Sept./Oct. 1958  
Krakow, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

**DUTKIEWICZ, J.S.**

**Vital capacity of the lungs in inhabitants of Upper Silesia.  
Med. pracy 6 no.4:209-218 1955.**

**1. Z Sekcji Fizjologii Pracy Instytutu Medycyny Pracy w  
Zabrsu-Rokitnicy; Kierownik: prof. dr. Br. Zawadski.  
(LUNGS, physiology  
vital capacity in inhabitants of Upper Silesia, Poland)**

DUNKIEWICZ, Jerzy S.

Modifications of body weight and of body temperature in man following exposure to high environmental temperature; effect of dry heat. Acta physiol. polon 6 no.4:377-385 1955.

1. Z Sekcji Fizjologii Pracy Instytutu Medycyny Pracy w Przemysle Węglowym i Hutniczym w Zabrsu-Rokitnicy. Kierownik: prof. dr. Br. Zawadzki. Prace doświadczalne wykonano w Ośrodku Badań Lekarskich Ratowników przy Stacji Ratownictwa Górniczego P.W. w Bytomiu.

(HEAT, effects,

on body temperature & body weight, dry heat (Pol))

(BODY TEMPERATURE,

eff. of dry heat (Pol))

(BODY WEIGHT,

eff. of dry heat (Pol))

DUTKIEWICZ, J.S.; GIEG, L.; ROZMUS, J.; STRZODA, L.

Changes in the circulatory system and in respiration in man exposed to increases in environmental temperature at rest; effect of dry heat. Acta physiol. polon 6 no.4:387-400 1955.

1. Z Sekcji Fizjologii Pracy Inst. med. Pracy w Przem. Węglowym i Hutniczym w Rokitnicy. Kierownik: prof. dr. Br. Zawadzki  
Z III Kliniki Chorob Wewnętrznych Śląskiej A.M. w Bytomiu  
Kierownik: prof. dr K. Gibinski. Praca doświadczalna wykonano w Ośrodku Badań Lekarskich Ratowników przy Stacji Ratownictwa Górniczego PW w Bytomiu.

(HEAT, effect,  
on blood & resp.  
on blood picture, hemodynamics & resp. (Pol))  
(BLOOD CIRCULATION,  
hemodynamics, eff. of dry heat (Pol))  
(BLOOD CELLS,  
count, eff. of dry heat)  
(RESPIRATION,  
eff. of dry heat (Pol))

DUTKIEWICZ, Jerzy S.

Hemoglobin level in the population of Upper Silesia; I. Level of hemoglobin in the blood of students of Academy of Medicine of Silesia. Polski tygod.lek. 10 no.33:1082-1084 15 Aug. '55.

1. Z Zakladu Fizjologii Sl. A.M. w Zabrsu-Rokitnicy; kierownik: Zakladu prof. dr Br. Zawadzki. Czesc I. Poziom hemoglobiny we Krwi studentow Slaskiej Akademii Medycznej. Zabrze-Rokitnica, Slaska Ak. Med.

(HEMOGLOBIN, determination,  
variations in Poland)

STARZYK, J.; DUTKIEWICZ, J. (Krakow)

Effect of DDT on *Toxoplasma gondii*. *Wiadomosci parazyt.*,  
Warsz. 2 no. 5: Suppl:61-62. 1956..

1. Zaklad Mikrobiologii Lekarskiej AM.  
(TOXOPLASMA, effect of drugs on,  
gondii, DDT (Pol))  
(DDT, effects,  
on *Toxoplasma gondii* (Pol))

Poland/Pharmacology. Toxicology. Tranquilizers

V

Abs Jour : Ref Zhur-Biol., No 8, 1958, 37508

Author : Dutkiewicz J.

Inst : Not given

Title : Effect of Largactil on Trichomonas foetus Ried  
in Vitro. (Deystviye largaktila na Trichomonas  
foetus Ried in vitro)

Orig Pub : Acta parasitol. polon., 1956, 4, No 9-19, 601-608

Abstract : Largactil in concentration of 1:7000 killed Tri-  
chomonas foetus within 62 hours; in concentration  
of 1:1300 within 20 minutes. Under the influence  
of largactil Trichomonas foetus take on a round  
form. A dilution which does not kill Trichomonas  
foetus arrests their reproduction.

Card 1/1



<sup>S.</sup>  
DUTKIEWICZ, J., AND OTHERS

"Further research on changes in bodies of people remaining still in dry heat. In German."

p. 89 (Bulletin) Vol. 4, no. 3, 1956  
Varsovie, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

POLAND/Human and Animal Physiology - Physiology of Work and Sport.

T-12

Abs Jour : Ref Zhur - Biol., No 7, 1958, 32297

Author : Dutkiewicz, J.S., Fiec, L., Drause, M., Strzoda, L.

Inst : -

Title : Further Study of Changes in the Organism of a Man Spending Time in a Ward in a Dry Hot Conditions.

Orig Pub : Acta physiol. polon., 1956, 7, No 2, 159-168

Abstract : In 62 mining rescuers placed for 2 hours in a chamber with little moisture and a temperature of 52-58°, an increase was found of the pulse rate with an increase of the environmental temperature to 55°, as well as a drop of the arterial pressure with no change of the pulse rate. Regular changes in the venal pressure and in the per-minute requirement of O<sub>2</sub> were not observed. Observation of 330 rescuers during their stay in a chamber with a temperature of 39-47° showed different, in many ways individual,

Card 1/2

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DUTKIEWICZ, J. S.; GIEC, L.; KRAUSE, M.; STRZODA, L.

Remote changes in man at rest exposed to dry heat. Acta physiol.  
polon. 7 no.2:159-168 1956.

1. Z Sekcji Fizjologii Pracy Instytutu Medycyny Pracy w P. W. i H.  
Zabrze-Rokitnica Kierownik: prof. dr. Br. Zawadzki Z III Kliniki  
Chorob Wewnętrznych Śląskiej A.M. w Bytomiu Kierownik: prof. dr.  
K. Gibinski.

(HEAT, effects,  
on man at rest (Pol))

DUPKIEWICZ, J. S.; GIEC, L.; KRAUSE, M.; STRZODA, L.; ZYGMUNT, M.

Changes in the human organism working with and without isolating apparatus in dry heat. Acta physiol. polon. 7 no.2:169-184 1956.

1. Z Sekcji Fizjologii Pracy Instytutu Medycyny Pracy w P. W. i H. i z Zakładu Fizjologii Śląskiej A.M. w Zabrze Kierownik: prof. dr. Br. Zawadzki Z III Kliniki Chorob Wewnętrznych Śląskiej A.M. w Bytomiu Kierownik: prof. dr. K. Gibinski Z Stacji Ratownictwa Gorniczego P. W. w Bytomiu Dyrektor: mgr inż. K. Cehak.

(HEAT, effects,  
on man working with & without protective devices (Pol))  
(WORK,  
eff. of heat on man working with & without protective  
devices (Pol))

POLAND/Human and Animal Physiology. Thermoregulation.

T-3

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55370.

Author : Dutkiewicz, I.S., Plonski, I., Spioch, F., Strzoda, L.

Inst

Title : Changes in the Blood Circulation System of People  
Resting in Conditions of Humid Heat.

Orig Pub: Acta physiol. polon., 1956, 7, No 4, 435-447.

Abstract: When 468 healthy, 20-45 years old life savers (from a mountain area) were placed in a restful position into a heat chamber with a 50° [C] temperature and a relative humidity of 50 percent, their maximal arterial pressure (AP) decreased considerably during the first 30 minutes. The decrease which followed then was insignificant, for the lowest AP amounted to 68 mm of the mercurial

Card : 1/3

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POLAND/Human and Animal Physiology. Thermoregulation.

T-3

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55370.

column. During the first 60 minutes of the experiment a significant decrease of the minimal AP was observed, but it remained on the same level. In 25 percent of the tested persons a decrease of the minimal AP down to zero was observed, although their wellbeing remained unchanged as compared to the other subjects. During the first 30 minutes of the experiment the blood pressure increased considerably. Subsequent increases were insignificant. After another 30 minutes they reached a constant high level, which did not change until the end of the experiment. After 30 minutes the average pulse rate increased to 115, and reached 138 beats per minute at the end of the test. In 325 workers an examination of the arterial tonus did not reveal specific changes of any kind.

Card : 2/3

POLAND/Human and Animal Physiology. Thermoregulation.

T-3

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55370.

This fact could be explained, however, by the inexactness of the oscillometric method. The average body temperature increased to  $39.5^{\circ} [^{\circ}C]$ , and it sometimes reached  $40.5^{\circ} [^{\circ}C]$ . Thus, the conclusion may be drawn that it is unadvisable to stay longer than 2 hours under the conditions described above.

Card : 3/3

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DUTKIEWICZ, Jerzy S.

Tables of standard values of vital capacity in the population  
of Upper Silesia. Polski tygod. lek. 11 no.35:1525-1528 27 Aug 56.

1. (Z sekcji Fizjologii Pracy Instytutu Medycyny Pracy w  
Przemysle Węglowym i Hutniczym w Zabrze--Rokitnicy; kierownik:  
prof. dr. Br. Zawadzki).

(RESPIRATION,

vital capacity, normal standards (Pol))



EXCERPTA MEDICA Sec.15 Vol.10/7 Chest Diseases Jul57

1637. DUTKIEWICZ J. S. Sekcji Fizjol. Pracy Inst. Med. Pracy, Przemysle Węglowym i Hutniczym, Zabrze-Rokitnicy. Oznaczanie aparatem Krogha powietrza Zalegającego w płucach *Determination with Krogh's apparatus of the residual air in the lungs* Pol. Tyg. lek. 1956, 11/40 (1703-1706) Illus. 3

An attempt was made to simplify the methods of measuring the residual air. Krogh's apparatus for determining the basal metabolism, in routine use in every hospital laboratory, was used. The method of adapting this apparatus for the measurement of the residual air in the lungs is described, and the technique employed is stated. The margin of error of a simple measurement did not exceed  $\pm 2\%$ .

Dobrowolski - Warsaw (XV, 6)

DUTKIEWICZ, JERZY

SCIENCE

DUTKIEWICZ, JERZY. Zarys fizjologii pracy człowieka. Wyd 1. Warszawa, Państwowy Zakład Wydawn. Lekarskich, 1957. 153 p.

~~HEW~~ DNLM Not in DLC

Monthly List of East European Accessions (EEAI) LC Vol. 8 no. 4,  
April 1959, Unclass.

POLAND/Chemical Technology. Chemical Products. Safety and Sanitation

H-6

Abs Jour : *Rof Zhur - Khimiya*, 1958, No 22, 74496

Author : Dutkiewicz J., Gallus H., Muzyczuk J., Olpinski W., Rozmus J.  
Inst : Not Given  
Title : Portable Apparatus for the Determination of CO<sub>2</sub>, CO, SO<sub>2</sub> and H<sub>2</sub>S.

Orig Pub : *Mod. pracy*, 1958, 9, No 2, 121-138

Abstract : Design of a portable apparatus for measuring low concentration of CO<sub>2</sub>, CO, SO<sub>2</sub> and H<sub>2</sub>S in the mines and chemical plants is described. Samples of air are collected by means of a water aspirator. The reagents employed are: solution of I<sub>2</sub>O<sub>5</sub> (for CO and CO<sub>2</sub>), Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>·5H<sub>2</sub>O in a solution with I (for SO<sub>2</sub> and H<sub>2</sub>S). Simultaneous determination of CO<sub>2</sub> and CO or H<sub>2</sub>S and SO<sub>2</sub> is possible. The maximum error is 0.0001% basis volume. Formulas for calculations and sketches of the apparatus are presented. Bibliography includes 6 names.

Card : 1/1

DUTKIEWICZ, Jerzy

Prevention of skin diseases among mining crews. Wiadom gorn  
10 no. 7/8:264 J1-Ag '59.

STARZYK, J.; LACHOWICZ, T.; DOLEZAL, M.; DUTKIEWICZ, J.

A study on the specificity of the serologic reactions of Sabin-Feldman and of complement fixation with special reference to syphilitic reagins. Wiadomosci parazyt. 7 no.2:425-427 '61.

1. Zaklad Mikrobiologii Wydz. Farm. A.M. Wojsk. Lab. San-Higieniczne i Zaklad Mikrobiol. Lek. A.M. w Krakowie.

(SYPHILIS immunol) (COMPLEMENT)

STARZYK, J.; LACHOWICZ, T.; DOLEZAL, M.; DUTKIEWICZ, J.

Correlation between the Sabin-Feldman and complement fixation tests  
in the diagnosis of toxoplasmosis. Wiadomosci parazyt. 7 no.2:  
429-430 '61.

1. Zaklad Mikrobiologii Wydz. Farm. A.M. Wojsk. Lab. San-Higieniczne  
i Zaklad Mikrobiol. Lek. A.M. w Krakowie.

(TOXOPLASMOSIS diagn) (COMPLEMENT)

STARZYK, J.; DUTKIEWICZ, J.; PISZCZ, K.

A test of the vitality of the protozoon *Toxoplasma gondii* by means of the safranine test. *Wiadomosci parazyt.* 7 no.2:431-432 '61.

1. Zaklad Mikrobiologii Wydz. Farm. A.M., Krakow.

(TOXOPLASMA pharmacol) (DYES pharmacol)

STARZYK, J.; DUTKIEWICZ, J.; TATAR, J.

Studies on the effect of lupulin on *Trichomonas vaginalis* in vitro.  
Wiadomosci parazyt. 7 no.2:457-458 '61.

1. Zaklad Mikrobiologii Wydz. Farm. A.M., Krakow.

(TRICHOMONAS pharmacol) (PLANTS extracts)



DUTKIEWICZ, Jacek

Survey of the literature concerning the role of arthropods  
in the transmission of *Toxoplasma gondii*. *Wiad. parazyt.*  
11 no. 5:443-452 ' 65.

DUTKIEWICZ, K.

Planning the pork products establishments in the Spolem Union of  
Consumers Cooperatives. p. 12

GOSPODARKA MIESNA. (Polskie Wydawnictwa Gospodarcze) Warszawa, Poland.  
Vol. 11, no. 7/8, July/Aug. 1959

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

Uncl.

DUTKIEWICZ, Marian, mgr inz.

"Stress and vibration measurements by electric means" by R. Zimmermann. Reviewed by Marian Dutkiewicz, Pomlary 8 no.1:42 Ja '62.

Dutkiewicz, T.

POLAND/Safety Engineering - Sanitary Engineering. Sanitation. I.

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 7020

Author : Brzozowski, J., Czajka, J., Dutkiewicz, T., Kesy, I.,  
Wojcik, J.

Inst :

Title : Labor Hygiene and State of Health of Workers in the  
Control of Potato Leaf Beetle by the Use of Hyxachlorocyc-  
lohexane and Dichlorethane.

Orig Pub : Med. pracy, 1954, 5, No 2, 89-98

Abst : Study of the deleterious effects on man of HCCH and di-  
chlorethane (I) used in agriculture to control potato  
leaf beetle. Various clinical symptoms of intoxication  
were found in 70% of people exposed to I and in 66% of  
those exposed to HCCH. Investigations of the ambient  
air showed that the HCCH content in the air was on the  
average of 0.12 mg/liter, and that of I 0.016 mg/liter,  
that is, below the specified hygienic norms. It is

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POLAND/Safety Engineering - Sanitary Engineering. Sanitation. L.

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 7020

recommended to mechanize the field operations, require a preliminary medical examination of the workers, ensure their outfitting with protective clothing and improve sanitary education.

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DUTKIEWICZ, T.  
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Chemical method of determination of the degree of exposure to toxic effects of aromatic nitro and amino compounds. Med.pracy 5 no.4:245-246 1954.

1. Z Działu Higieny Pracy Instytutu Medycyny Pracy w Łodzi.  
Dyrektor: prof. dr B.Paluch.

(POISONING,  
aromatic amino & nitro cpds., chem. method of determ.  
of degree of exposure)

DUTKIEWICZ, T.; KESY, I.

Determination of dichlorethane in the air and in urine. Med.  
pracy 6 no.4:235-241 1955.

1. Z Oddz. Chemii Toksykologicznej Instytutu Medycyny Prace  
w Lodzi. Dyrektor: prof. dr. E. Paluch.

(ETHYL CHLORIDE, derivatives  
dichlorethane, determ.)

(AIR  
dichlorethane determ.)

DUTKIEWICZ, T.

EXCERPTA MEDICA Sec.2 Vol.9/8 Physiology, etc. Aug56

3390. DUTKIEWICZ T. Inst. med. Pracy, Łódź. \*Prosta metoda oznaczania rtęci w moczu. A simple method for determination of mercury in urine MED. PRACY 1955, 6/6 (403-406)

An appropriate amount of urine is ashed with  $H_2SO_4$  and  $KMnO_4$ . The resulting so-

lution is adjusted to pH 1 and any remaining excess of permanganate destroyed by oxalic acid. After addition of hydroxylamine the solution is extracted several times with a solution of dithizone (I) in chloroform (II), 1 ml. of I being used for each extraction, until the green II phase no longer turns red. The adjusted I solution corresponds to 1  $\mu g.$  Hg per ml. From the number of extractions the amount of Hg in the urine is calculated.

Heyrovský - Prague



DUTKIEWICZ, T.

Factory toxicological laboratory, p. 82. (OCHRONA PRACY, Warszawa, Vol. 9, no. 3, Mar. 1955.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jun, 1955, Uncl.

DATKIEWICZ, T. dr farm.

New tasks of toxicological chemistry. Farm.polska 11 no.6:134-136 June '55.

1. Z Instytutu Medycyny Pracy w Łodzi. Dyrektor doc.dr J. Hofer.  
(CHEMISTRY,  
toxicol., tasks)

POLAND/Chemical Technology. Chemical Products. Safety Engineering.H-6  
Sanitation Engineering.

Abstr Jour : Ref Zhur - Khimiya, 1958, No 22, 74466

Author : Dutkiewicz T., Paluch J., NoughornU.

Inst : Not Given

Title : Comparison of Toxicities of Ceramic Glazings of High and  
Low Lead Contents.

Orig Pub : Mod. precy, 1957, 6, No 6, 389-398

Abstract : Experiments were conducted on 6 rabbits and consisted in the intratracheal introduction of the ceramic glazing compound containing varying amounts of Pb. The dust of  $\leq 5\mu$  particle size suspended in a 99% physiological solution was administered to the two groups of animals in the 15-16 mg/kg dosages of high Pb content (I group) and of low Pb content (II group). This corresponded respectively to 57 and 10% of Pb expressed as PbO. It was found that the Pb content of urine of animals of the first group has increased by a factor of 40, and that of animals of the second group by a

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POLAND/Chemical Technology. Chemical Products. Safety Engineering. H-6  
Sanitation Engineering.

Abs Jour : Ref Zhur - Khimiya, 1958, No 22, 74466

factor of 13. After 6 days the Fb content of urine of animals of both groups became equal. After 7 weeks, the Fb content reached the physiological normal. Coproporphyrine was found in the urine of animals of I and II groups on the third day after administering poison and it was found to be equal for both groups. Its presence in the urine continued on until the time when Fb became normalized again. The hemoglobin content of blood was not affected by poisoning. Quantity of erythrocytes declined but remained in the normal limits. Histological investigations conducted after 4 months revealed that Fb content of the internal organs of animals of groups I and II was not appreciably different. It was concluded that toxicities exhibited by groups I and II were practically identical. The deciding factor in the determination of hazard is the concentration of Fb in the air independent of the type of a glazing. Bibliography includes 6 names.

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