LENGYEL, SANDOR

24(8) PHASE I BOOK EXPLOITATION SOV/2859

Akademiya nauk SSSR. Obshchestvo khimicheskikh nauk

Termodinamika i stroyentye rastvorov; trudy soveshchaniya... (Thermodynamics and Structure of Solutions; Transactions of the Conference Held January 27-30, 1958) Moscow, Izd-vo AN SSSR, 1959. 295 p. 3,000 copies printed.

Ed.: M. I. Shakhparonov, Doctor of Chemical Sciences; Ed. of Publishing House: N. G. Yegorov; Tech. Ed.: T. V. Polyakova.

PURPOSE: This book is intended for physicists, chemists, and chemical engineers.

COVERAGE: This collection of papers was originally presented at the Conference on Thermodynamics and Structure of Solutions sponsored by the Section of Chemical Sciences of the Academy of Sciences, U.S.S.R, and the Department of Chemistry of Moscow State University, and held in January 27-30, 1958. Officers of the conference were [illegible] the [illegible] included in this book, also read at the conference, but the problems treated in this work are: [illegible] electrolytic solutions, ultrasonic measurements, spectroscopic analysis, etc. References accompany individual articles.

LENGYEL, S.

A survey of the up-to-date research work on the structure of strong electrolyte solutions. p. 45.

KOZLEMENYEI. Budapest, Hungary. Vol. 12, no. 1, 1959

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

Uncl.

LENGYEL, Sandor, a kemiaia tudomanyok kandidatusa (Budapest)

An account of the International Symposium on Electrolytes held in Trieste, June 4-9, 1959. Kem.tud.kozl.MTA 12 no.3:351-361 '59. (EEAI 9:4)

1. Budapesti Eotvos Lorand Tudomanyegyetem, Fizikai-Kemiai es Radiologiai Tanszek.

(Electrolytes)

KOVACS, Andras, dr.; VARGA, Katalin, dr.; LENGYEL, Sandor, dr.

Developmental anomalies. 10-year observations on data of an obstetric clinic. Magy.noorv.lap. 23 no.5:257-266 S '60.

1. Budapesti Orvostudomanyi Egyetem II. sz. Noi Klinikajanak kozlemenye (igazgato: Zoltan Imre dr. egyetemi tanar).
(ABNORMALITIES statist)

LENGYEL, Sandor; GIBER, Janos; TAMAS, Jozsef

Transference number and the conductivity of aqueous lithium chloride solutions. Magy kem folyoir 66 no.5:161-169 My '60.

1. Eotvos Lorand Tudomanyegyetem Fizikai Kemiai es Radiologiai Tanszeke, Budapest.

2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi tagja (for Lenbyel).

GIBER, Janos; LENGYEL, Sandor; TAMAS, Jozsef; TAHI, Peter

Data on the mechanism of ion conduction in concentrated hydrochloric-acid solution; concentration and temperature dependence of transference numbers and ion mobilities. Magy kem folyoir 66 no.5: 170-174 My '60.

1. Eotvos Lorand Tudomanyegyetem Fizikai Kemiai es Radiologiai Tanszeke, Budapest.

2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi tagja (for Lengyel).

LENGYEL, Sandor, a kemiai tudomanyok doktora, egy.tanar (Budapest)

Activity of the World Federation of Scientific Workers. Magy tud 68 no.2:109-113 F '61. (EEAI 10:6)

1. Eotvos Lorand Tudomanyegyetem, Budapest.
(World Federation of Scientific Workers)

VARGA, Kalman, dr.; VARGA, Katalin, dr.; LENGYEL, Sandor, dr.

Evaluation of anesthesia based on the results of 1004 cesarean sections. Magy noorv. lap. 25 no.1:1-9 Ja '62.

1. A Budapesti Orvostudomanyi Egyetem II sz. Noi Klinikajanak kozlemenye (Igazgato: Zoltan Imre dr. egyetemi tanar)

(CESAREAN SECTION anesth. & analgesia)
(ANESTHESIA, OBSTETRICAL)

LENGYEL, Sandor, prof., dr. (Budapest, VIII., Puskin u. 11-13); GIBER, Janos, dr. (Budapest, VIII., Puskin u. 11-13)

Theory of the influence of silver halide on the electromotive force of galvanic concentration cells with silver halide second class electrodes. Acta chimica Hung 32 no.2:235-252 '62.

1. Department of Physical Chemistry and Radiology, Lorand Eotvos University, Budapest. 2. Editorial Board member, "Acta Chimica Academiae Scientiarum Hungaricae" (for Lengyel).

LENGYEL, Sandor, prof., dr. (Budapest, VIII., Muzeum korut 6-8);
FEZLER, Gyula (Budapest, VIII., Muzeum korut 6-8)

Studies on the structure of aqueous solutions containing two electrolytes by density determinations. Acta chimica Hung 37 no.3:319-327 '63.

1. Department of Physical Chemistry and Radiology, Lorand Eotvos University, Budapest. 2. Editorial board member, "Acta Chimca Academiae Scientiarum Hungaricae" (for Lengyel).

KOVACS, Andras, dr.; VARGA, Katalin, dr.; LENGYEL, Sandor, dr.

Threatened pregnancy. Nepegeszsegugy 43 no.1:19-23 Ja '62.

1. Kozlemeny a Budapesti Orvostudomanyi Egyetem II sz. noi klinikajarol (igazgato: Zoltan Imre dr. egyetemi tanar)

(PREGNANCY compl)

INZELTNE GERBER, Edit; LENGYEL, Sandor

Measuring ion mobility in sodium-iodide solutions by means of trace indicator. Magy kem folyoir 68 no.4:151-156 Ap '62

1. Eotvos Lorand Tudomanyegyetem Fizikai-Kemiai es Radiologiai Tanszeke, es Magyer Tudomanyos Akademiai Elektrokemiai Kutato Csoportja, Budapest. "Magyar Kemiai Folyoirat" szerleszto bizottsagi tagja (for Lengyel).

LENGYEL, Sandor; GIBER, Janos; BEKE, Gyula; VERTES, Attila

Transference number of aqueous sodium hydroxide and potassium hydroxide solutions. Magy kem folyoir 68 no.8:335-338 Ag '62.

1. Eotvos Lorand Tudomanyegyetem Fizikai-Kemiai es Radiologiai Tanszeke, es Magyar Tudomanyos Akademia Elektrokemiai Kutato Csoportja.

SZABO, Zoltan, egyetemi tanar; POLINSZKY, Karoly, a kemiai tudomanyok doktora; MATOLCSY, Kalman, a kemiai tudomanyok kandidatusa; LEVAY, Gyula; NAGY, Ferenc, a kemiai tudomanyok doktora; BERECZ, Endre, a kemiai tudomanyok kandidatusa docens; KORACH, Mor, akademikus; LENGYEL, Sandor, a kemiai tudomanyok doktora; SCHAY, Geza, akademikus, egyetemi tanar; ERDEY-GRUZ, Tibor, akademikus

1. Problems of and experiences with coordinating the main task of the long-range research entitled "Investigation of the mechanism of chemical processes as well as the regularities of chemical industrial operations." Kem tud kozl MTA 20 no.2: 199-229 '63.

1. Magyar Tudomanyos Akademia levelezo tagja; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagha (for Szabo). 2. Veszpremi Vegyipari Egyetem rektora; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Polinszky). 3. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete igazgatohelyettese (for Nagy). 4. Eotvos Lorand Tudomanyegyetem Fizikai Kemiai es Radiologiai Tanszeke. 5. Magyar Tudomanyos Akademia Muszaki Kemiai Kutato Intezetenek igazgatoja; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Korach). 6. Akademia Elektrokemiai Kutato Csoport vezetoje; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Lengyel). (cont. on next card.)

LENGYEL, Sandor; TAMAS, Jozsef; VERTES, Attila

Self-diffusion study of iodine ions. Magy kem folyoir 69 no.1: 1-4 Ja '63.

1. Eotvos Lorand Tudomanyegyetem Fizikai-Kemiai es Radiologiai tanszeke, Budapest; A Magyar Tudomanyos Akademia Elektrokemiai Kutato Csoportja. 2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi tagja (for Lengyel).

H/005/63/000/001/001/003
D249/D307

AUTHOR: Lengyel, Sándor

TITLE: Studies of the structure of aqueous ionic solutions by the analysis of the density/molarity curves

PERIODICAL: Magyar Kémiai Folyóirat, no. 1, 1963, 4-17

TEXT: The following empirical relation was found between the density s and the concentration c of aqueous strong electrolytes where the ions do not form complexes:

$$s = \rho_0 + \alpha + \gamma c - \beta c \ln c, \quad (c_A \leqslant c \leqslant c_B) \qquad (1)$$

where ρ_0 is the density of water at a temperature identical to that of the solution, α, β, γ are constants depending on the electrolyte and temperature, and c_A, c_B are concentrations representing the limits of validity of the above relation. For monovalent elec-

Card 1/4

Studies of the structure ...

trolytes $c_A \approx 2$ moles/liter and $c_B \approx 4-5$ moles/liter, depending on the solubility. The numerical values α, β, and γ are tabulated for aq. HCl, HBr and HI, alkali halides, NaOH and KOH, at 0, 25 and 50°C. Deviations of densities calculated according to Eq. (1) from actual values are listed. The physical meaning of α, β, and γ is discussed. It is assumed that in a dilute solution of a monovalent electrolyte water molecules assume a definite configuration around every ion, extending over 10 - 12 water molecules. This configuration is different from that in pure water and depends only on temperature. If the concentration of the solution is so high that there are less than 10 - 12 water molecules surrounding each ion, their configuration will be identical to that of the primary shell of hydration. The following model is assumed to describe the space requirements of the components of a concentrated monovalent electrolyte solution. The volume of an ionic crystal is resolved into those of the two ions. The space requirements of each type of ion are considered. The same method is applicable to aqueous solutions in which the water molecules are considered as spheres of 1.38 Å

Card 2/4

Studies of the structure)... H/005/63/000/001/001/003
D249/D307

Lorand University of Science, Electrochemistry Research Group of the Hungarian Academy of Sciences)

SUBMITTED: April 16, 1962

Card 4/4

LENGYEL, Sandor, prof., dr. (Budapest, VIII., Puskin u.11-13)

Studies on the structure of aqueous ionic solutions by analysis of the density against molarity curves. Acta chimica Hung 37 no.1:87-116 '63.

1. Department of Physical Chemistry and Radiology, Lorand Eotvos University, Budapest; Editorial board member, "Acta Chimica Academiae Scientiarum Hungaricae".

LENGYEL, Sandor; FEZLER, Gyula

Density determination of aqueous solutions containing two electrolytes for structural studies. Magy kem folyoir 69 no.3:128-131 Mr '63.

1. Eotvos Lorand Tudomanyegyetem Fizikai-Kemiai es Radiologiai Tanszeke; Elektrokemiai Akademiai Kutato Csoport. 2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi tagja (for Lengyel).

LENGYEL, Sandor, prof., dr. (Budapest, VIII., Puskin u.11-13);
TAMAS, Jozsef (Budapest, VIII., Puskin u.11-13);
VERTES, Attila (Budapest, VIII., Puskin u.11-13)

Study of the diffusion of iodide ions. Acta chimica Hung 37 no.3:279-286 '63.

1. Department of Physical Chemistry and Radiology, Lorand Eotvos University, Budapest. 2. Editorial board member, "Acta Chimica Academiae Scientiarum Hungaricae" (for Lengyel).

INZELT-GERBER, Edit (Mrs) (Budapest, VIII., Puskin u. 11-13);
LENGYEL, Sandor, prof., dr. (Budapest, VIII., Puskin u. 11-13)

Measuring ionic mobilities in sodium iodide solutions by applying radioactive isotopes. Acta chimica Hung 35 no.4: 407-417 '63.

1. Lehrstuhl fur Physikalische Chemie und Radiologie der Lorand Eotvos Universitat, Budapest und Elektrochemische Forschungsgruppe der Ungarischen Akademie der Wissenschaften, Budapest.
2. Mitglied, Redaktionskollegium, "Acta Chimica Academiae Scientiarum Hungaricae," (for Lengyel).

LENGYEL, Sandor, egyetemi tanar

Structure of molecules. Term tud kozl 8 no.5:222-223 My'64.

1. Chair of Physicochemistry and Radiology, Lorand Eotvos University, Budapest.

LENGYEL, Sandor, prof., dr. (Budapest, VIII.,Puskin u. 11/13);
TAMAS, Jozsef (Budapest, VIII.,Puskin u.11/13); GIBER, Janos, dr. (Budapest,VIII.,Puskin u.11/13); HOLDERITH, Jozsef (Budapest, VIII.,Puskin u.11/13)

Study on the viscosity of aqueous alkali halide solutions. Acta chimica Hung 40 no. 2:125-143 '64.

1. Department of Physical Chemistry and Radiology, Lorand Eotvos University, Budapest. 2. Editorial Board member, "Acta Chimica Academiae Scientiarum Hungaricae" (for Lengyel).

GERGELY, Jozsef; TAMAS, Jozsef; VERTES, Attila; LENGYEL, Sandor

Mathematical examination of a problem of the measurement of the open-end capillary diffusion. Magy kem folyoir 70 no. 2: 55-60 F '64.

1. Eotvos Lorand Tudomanyegyetem Fizikai-Kemiai es Radiologiai Tanszeke, Budapest; Elektrokemiai Akademiai Kutato Csoport.
2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi tagja (for Lengyel).

LENGYEL, Sandor, a kemiai tudomanyok doktora; KISS, Laszlo, a kemiai tudomanyok kandidatusa

An account of the 14th Conference of the International Committee of Elector-Chemical Thermodynamics and Kinetics. Kem tud kozl MTA 21 no.3:339-341 '64.

1. Department of Physicochemistry and Radiology, Lorand Eotvos University, Budapest. 2. Editorial board member, "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" (for Lengyel).

LENGYEL, Tamas, a kemiai tudomanyok kandidatusa

Possibilities of ion exchange and selective adsorption for preparing some carrier-free isotopes. Kem tud kozl MTA 20 no.4:433-439 '63.

1. Orszagos Atomenergia Bizottsag Izotop Intezete, Budapest.

LENGYEL,Tamas, dr. (Budapest, XII., Konkoly Thege ut)

Research on ion-exchange equilibria with radioactive tracer method. Pt.7. Acta chimica Hung 38 no.4:367-371 '63.

1. National Atomic Energy Commission, Institute of Isotopes, Budapest.

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ACC NR: AP6008582 SOURCE CODE: HU/0005/65/071/002/0054/0056

25 B

AUTHOR: Lengyel, Tamas; Pavlicsek, Istvan

ORG: Institute for Isotopes, National Atomic Energy Commission, Budapest (Orszagos Atomenergia Bizottsag Izotop Intezete)

TITLE: Studies in the field of I-125 preparation

SOURCE: Magyar kemiai folyoirat, v. 71, no. 2, 1965, 54-56

TOPIC TAGS: radioisotope, iodine, xenon 19,55

ABSTRACT: The radioactive iodine isotope I-125 was prepared in a nuclear reactor for the first time in Hungary by employing the following process: Xe-124(n,γ)Xe-125 K I-125. The 99.9% pure xenon gas was sealed in a glass capsule during irradiation. The neutron flux during the operation was 1.1×10^{12} n cm.$^{-2}$ sec.$^{-1}$. The product had an activity of 258 μC and was entirely carrier-free. Experiments are in progress to assess the potential therapeutical applications of the isotope. The authors thank the Reactor Enterprise for taking upon themselves the extra problems of the gas irradiation and preparations as well as for numerous recommendations. Orig. art. has: 3 figures, 3 formulas, and 2 tables. [JPRS]

2

Card 1/2

L 16485-66
ACC NR: AP6008582

SUB CODE: 07, 18 / SUBM DATE: 04Jun64 / OTH REF: 014

Card 2/2 vmb

Lengyel, Tamas

5

4E32
4E2c Gj
2 May

The effects of x-rays and radioactive radiations on the chlorination of paraffins / László Vajta, Hanna Topercer, and Tamás Lengyel (VEM Kísolajipari Igazgatóság, Budapest). *Magyar Kem. Folyóirat* 62, 100–12(1956).—The effects upon the reaction velocity of the chlorination of *n*-heptane (I) and paraffin (m.p. 51.5°) (II) of x-rays (170 k.v., 10 ma., 0.5 mm. thick Cu filter of 200 cm. focal length), and γ-rays (Ra compd. contg. 351 mg. Ra; Pt encased), was studied. Cl was introduced at a rate of 8300 ml./hr. into a flask with reflux, thermometer, Cl intake, and exhaust pipe. A higher rate of Cl introduction would cause activation of the still unattached Cl, while a lower rate would cause a break in the reaction chain. Reaction was carried out at 20° for I and at 100° for II, at atm. pressures. Samples were taken at 20 min. intervals and the degree of chlorination was detd. by measuring n^{20} (a linear relation, cf. Tumarkina, *et al.*, *C.A.* 46, 10697*a*). The reaction velocity increased by approx. 100% with γ-radiation and approx. 150% with x-rays, while an approx. 25% increase was evident when illuminated with a 500-w. incandescent bulb from a distance of 0.5 m. G. J. Ernyei

LENGYEL, T.

HUNGARY / Physical Chemistry. Thermodynamics. Thermochemistry. Physico-Chemical Analysis. Phase Transition. B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35368

Author : Hollo Janos, Ember Gyergy, Lengyel Tamas, Wieg Andras

Inst : Magyar Tud. Akad.

Title : Investigation of the Equilibrium of Vaporous and Liquid Phases of the Quaternary System Ethanol-Heptane-Toluene-Aniline.

Orig Pub: Kem. Tud, Oszt. Kozl., 1957, 8, No 4, 449-475

Abstract: The equilibrium of the quaternary system ethanol (I) -heptane (II)-toluene (III)-aniline (IV) has been experimentally and theoretically investigated. A device for the determination of the liquid-vapor equilibrium is described. The Margules and Van Laar

Card 1/3

HUNGARY / Physical Chemistry. Thermodynamics. Thermochemistry. Physico-Chemical Analysis. Phase Transition. B

Abs Jour: Ref Zhur-Khimiya; No 11, 1958, 35368

Abstract: equation constants have been determined for the systems I-II, I-III, II-IV. These equations are not applicable to the highly asymetric systems I-IV, III-IV and II-IV. The complete equilibrium curve for the systems I-IV, III-IV has been plotted in accordance with the experimental data with the aid of the Sketcherd-Hamer equation. Only the Margules equation can be applied in calculating the quaternary system. The Margules constant for the II-IV system has been determined by the indirect Carlson-Coburn method (according to the satu-

Card 2/3

LENGYEL, T.; ARKOSI, I.

Lubricants with lead and mixed basis. p. 29. (Magyar Kemikusok Lapja, Vol. 12, No. 1, Jan 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

LENGYEL, T.

Distr: 4E3d/4E2c(1)h 7

11
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The vapor-liquid equilibrium of the quaternary system, ethanol-heptane-toluene-aniline. J. Holló, Gy. Ember, T. Lengyel, and A. Wieg (Tech. Univ., Budapest, Hung.). *Acta Chim. Acad. Sci.* 13, 307-33(1957)(in English).—Liquid and vapor compns. at 2 or more temps. were measured of all the possible binary, ternary, and quaternary systems selected from the components EtOH (I), heptane (II), toluene (III), and $PhNH_2$ (IV). The results were used to calc. the consts. for the Margules equations applicable to binary, ternary, and quaternary systems (cf. *C.A.* 45, 939*i*; Wohl, *C.A.* 40, 4930[1]). The van Laar consts. also were calcd. for the systems I-II, I-III, and II-III. In binary systems, the following values were obtained for the quantity A_{ij}, the log of the activity coeff., where the subscript i denotes the substance, the log of whose activity coeff. is given, the subscript j denotes the 2nd component of the mixt., and the numerals 1–4 refer to the substances I–IV, resp.: $A_{12} = 0.83$, $A_{13} = 0.37$, $A_{14} = 2.19$, $A_{23} = 0.17$, $A_{24} = 1.29$, $A_{34} = 0.45$, $A_{21} = 0.83$, $A_{31} = 0.96$, $A_{41} = 0.95$, $A_{32} = 0.12$, $A_{42} = 0.81$, and $A_{43} = 1.50$. Values presented for the ternary systems were not concordant. For the quaternary system, equations in terms of binary and ternary consts. were used, the values of the ternary consts. being derived from measurements on the quaternary system. Agreement was fair between measured and calcd. values of the compns. of the vapor at given liquid compns. in the quaternary system. An *app. for measurement of vapor-liquid equil.* is described. Patricia H. Moyer

CC
4

Distr: 4E3d/4E2c(j) 7

/Vapor-liquid equilibrium of binary homoazeotropes. J. Hollo and T. Lengyel (Polytech. Univ., Budapest, Hung.).

Periodica Polytech. 2, 173-82(1958).—Experimentally detd. vapor-liquid equil. curves are shown for the pos. azeotrope binary systems (*a*) heptane-BuOH, (*b*) toluene-pyridine, (*c*) toluene-BuOH, (*d*) heptane-pyridine and for the neg. azeotrope (*e*) pyridine-BuOH. Equil. data tables are given for systems *a* and *b*. The Margules equation satisfactorily describes systems *a*, *b*, *c*, and *e* but fails for *d*.

Roland E. Kreibich

1

5

2-May

2

LENGYEL, T.

Distr: 4E2c(j)

19. Investigations on the vapour-liquid equilibrium of the quaternary system ethanol-heptane-toluene-aniline. (In English) J. Hollo, Gy. Ember, T. Lengyel, A. Vieg. *Acta Chimica Academiae Scientiarum Hungaricae*. Vol. 13, 1958, No. 3—4, pp. 307—333, 7 figs., 11 tabs.

A method has been elaborated for the reliable analysis of the quaternary system, subsequently the vapour-liquid equilibria of the corresponding binary and ternary systems and that of the quaternary system were examined in detail. The probable binary and ternary systems were investigated in respect to the application of theoretical calculations, the values of the corresponding Margules constants and in certain cases those of the van Laar constants were established. On the basis of the binary constants a new method of calculation was evolved for the determination of quaternary equilibria using the three-index Margules equation.

B-3

COUNTRY : Hungary
CATEGORY :

17593

ABS. JOUR. : RZKhim., No. 5 1960, No.

AUTHOR : Hollo, J., Lengyel, T., and Uzonyi, G.
INST. : Not given
TITLE : The Analysis of the System Heptane-Toluene-Pyridine-n-Butanol

ORIG. PUB. : Magyar Kem Lapja, 15, No 10-12, 440-445 (1960)

ABSTRACT : A method is described for the determination of the content of the individual components in the system heptane (I)-toluene (II)-pyridine (III)-n-butanol (IV) from diagrams giving the dependence of the index of refraction (IR) on the concentration for the binary systems I-III, III-IV, and II-IV, and the dependence of the density on the concentration for the system I-IV, as well as from diagrams giving the dependence of the surface tension on the concentration for the system I-III and from

CARD: 1/3

E-3

COUNTRY : Hungary
CATEGORY :

ABS. JOURN. : RZKhim., No. 5 1960, No. 17593

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : constant-IR curves for the ternary systems I-III-IV and II-III-IV; in the last-indicated ternary systems, an auxiliary titrimetric determination of the concentration of III by a method described earlier (RZhKhim, 1954, No 12, 31133) is also carried out. The four-component mixture is separated by trice-repeated extraction with water into a phase containing I and II (A), and a phase containing the system water-III-IV (B). The I : II ratio is determined in phase A from IR measure-

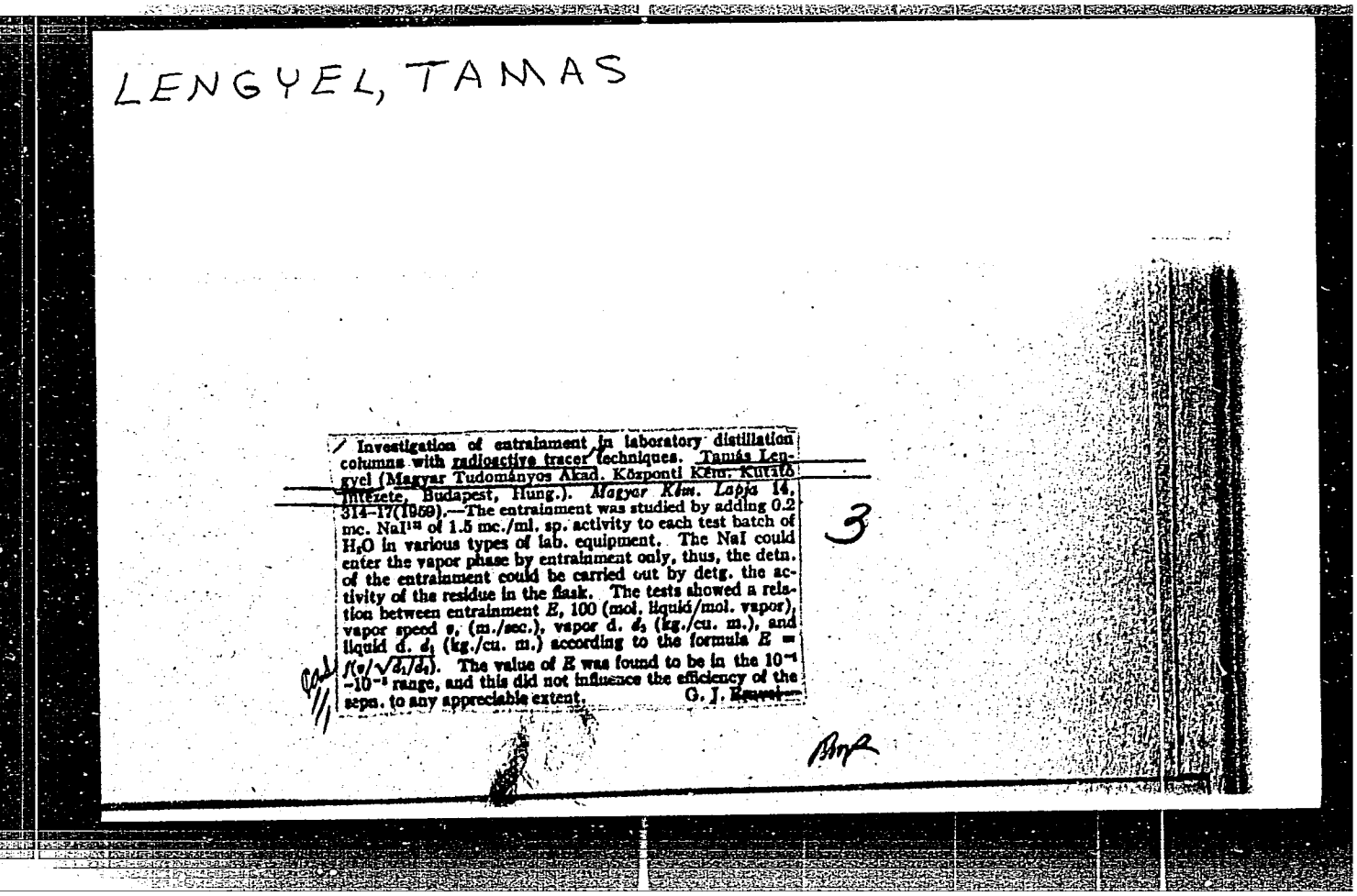
CARD: 2/3

135

LENGYEL, T.

Vapor-liquid equilibrium of quaternary systems. I. Hollo and T. Lengyel (Tech. Univ., Budapest, Hung.). *Collection (Section) Chem. Communs.* 23, 1735–42(1958) (in German).—Vapor-liquid equil. were studied in the 3 following nonideal quaternary systems: (1) EtOH–C_6H_6–n-C_7H_{16}–H_2O, (2) Me_2CO–EtOH–H_2O–BuOH, and (3) EtOH-heptane–toluene–aniline. The app. for detg. the equil. functioned according to the recirculation principle and was a modification of the Othmer app. Methods were developed for semimicro analysis of the quaternary systems and for the binary and ternary systems that belong to them. H_2O was detd. by the Karl Fischer method, alc. was detd. by oxidn. with $K_2Cr_2O_7$ followed by ferrous sulfate titration, acetone was detd. acidimetrically by hydroxylamine-HCl soln., and aniline was detd. as N_2 by the Kjeldahl method. For the 4-component system the relative anal. error did not exceed 2%. The time required for each analysis was 1–3 hrs. The behavior of the systems from the point of view of state was presented graphically, and a method of algebraic characteristics based on activity coeffs. of the components expressed by means of the Margules 3rd-order equation was proposed. —Gladys S. Macy

LENGYEL, TAMAS



Investigation of entrainment in laboratory distillation columns with radioactive tracer techniques. Tamás Lengyel (Magyar Tudományos Akad. Központi Kém. Kutató Intézete, Budapest, Hung.). *Magyar Kém. Lapja* 14, 314–17(1959).—The entrainment was studied by adding 0.2 mc. NaI^{128} of 1.5 mc./ml. sp. activity to each test batch of H_2O in various types of lab. equipment. The NaI could enter the vapor phase by entrainment only, thus, the detn. of the entrainment could be carried out by detg. the activity of the residue in the flask. The tests showed a relation between entrainment E, 100 (mol. liquid/mol. vapor), vapor speed v_1 (m./sec.), vapor d. d_2 (kg./cu. m.), and liquid d. d_1 (kg./cu. m.) according to the formula $E = f(v/\sqrt{d_1/d_2})$. The value of E was found to be in the 10^{-1}–10^{-3} range, and this did not influence the efficiency of the sepn. to any appreciable extent. G. J. Reuvel

LENGYEL, T.

19

12. Experiences made during investigations on the radioactivity of atmospheric precipitations. (In English) L. Ádám, T. Lengyel. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. 19, 1959, No. 1, pp. 111—116, 2 figs.

4

One of the most important investigations of atmospheric radioactive contamination at present is the determination of the radioactivity of precipitations. Experiments were carried out in order to find the best procedure for eliminating the interfering action of suspended soot from town atmosphere. A simple and rapid method consists of filtering the sample of atmospheric precipitation through black-striped *Macherey* filter paper and washing the residue with 50 ml 1-*N* hydrochloric acid. The combined aqueous and hydrochloric acid filtrates are evaporated to 100 ml volume and the determination is then carried out in homogeneous phase. A number of proof tests showed that this method brought the activity quantitatively into the liquid phase and no activity was contained in the solid residue. The rapidity and accuracy of the evolved measuring method surpass those of other methods known so far. Data observed by this method between September, 1957 and June, 1958 are presented in graphs.

LENGYEL, T.

Energy dependence of the back-scattering factor of absolute β counting. T. Lengyel (Hungarian Acad. Sci., Budapest). *Acta Chim. Acad. Sci. Hung.* 21, 51-[illegible](1959)(in English).—Data were obtained with a Geiger-Müller tube. Source thickness was <0.1 mg./sq. cm., which is <1% of range. Sources were mounted on Zapon film 0.01 mg./sq. cm. Assembly and tube were shielded in Pb 5 cm. thick, with a max. internal space 5 × 5 × 10 cm., lined with 5 mm. Plexiglas. C^{14}, S^{35}, Ca^{45}, Sr^{90}, Cl^{36}, Tl^{204}, P^{32}, and Y^{90} were used, with half-lives and energies based on Strominger, *et al.* (*CA* 52, 16047g). Activities were 0.01 to 0.1 μc. to yield 1000 counts/min. Half-thicknesses for the above isotopes were, resp.: for Al, 2.74, 2.84, 5.83, 20.0, 37.0, 32.0, 114.0, 190.0; for Cu, 2.35, 2.63, 5.25, 16.8, 30.0, 28.0, 95.0, 144.0; for Sn, 2.10, 2.40, 4.79, 15.0, 26.0, 23.6, 80.0, 130.0 mg./sq. cm. The logarithm of the half-thickness, d, mg./sq. cm., *vs.* the logarithm of the max. β-energy, E, m.e.v., was linear: for Al, $d_{1/2} = 52\ E^{1.55}$; for Cu, $42\ E^{1.61}$; for Sn, $38\ E^{1.49}$. The satn. back-scattering factor, f_β, as a function of E = 0.1, 0.2, 0.4, 0.6, ≥0.8 was: for Al, 1.075, 1.11, 1.18, 1.25, 1.27; for Cu, 1.12, 1.24, 1.39, 1.46, 1.48; for Sn, 1.25, 1.39, 1.56, 1.64, 1.66; for Pb, 1.29, 1.46, 1.69, 1.79, 1.81. The thickness of the back-scatterer beyond which there is no increase in f_β (i.e., the min. thickness for f_β) was, in units of the half-thickness, (approx.): for Al, $2.25\ E^{-0.251}$; for Cu, $2.05\ E^{-0.412}$; for Sn, $1.85\ E^{-0.463}$. For $E > 0.7$, $f_\beta = 0.29\ Z^{1/3} + 0.58$, where Z is the at. no. of the back-scatterer. James J. Barker

LENGYEL, JAMAS

Vapor-liquid equilibrium of the system toluene-pyridine-butanol. János Holló and Tamás Lengyel (Tech. Univ., Budapest, Hung.). *Ind. Eng. Chem.* 51, 957-60(1959).—Min. b.p., max. b.p., and saddle point azeotropes are the principal types of distinguishable ternary homoazeotropes. With saddle point azeotropes there is no extreme value considered in the abs. sense, and b.p. and dew-point surfaces are contiguous only at local extreme values. On an equil. diagram represented by plane coördinates, isotherms in the vicinity of the saddle point are similar to hyperbolas. For the analysis of the ternary system the characteristics used were *n* and concn. of pyridine. Vapor-liquid equil. were measured with a modified Othmer-type app. and ebulliometric data were obtained with a modified Swietoslawski app. Binary and ternary Margules consts. were used in calcg. azeotropic compn. During differential ebulliometric studies the azeotrope appeared at the compn. pyridine 22.6 mole %, toluene 63.4, BuOH 14 and had a b.p. of 108.7° which corresponded well with the computed value.

H. Iserson

HOLLO, J., prof. (Budapest XI, Gellert ter 4); LENGYEL, T. (Budapest XI, Gellert ter 4)

Some problems in projecting industrial distillation equipment; purification of 1,1,2,2-tetrachloroethane and 1,1,2-trichloroethylene. Periodica polytechn chem 4 no.2:125-140 '60. (EEAI 10:4)

1. ~~Institute~~ DEPT. for Agricultural Chemical Technology, Polytechnical University, Budapest.

(Distillation) (Tetrachloroethane)
(Trichloroethylene) (Systems (Chemistry))

HOLLO, J., Prof. (Budapest); LENGYEL, T. (Budapest); UZONYI, H.M. (Budapest)

Investigation on the system triethyl amine-acetic acid. Periodica polytechn chem 4 no.3:173-182 '60. (EEAI 10:5)

1. ~~Institute~~ Dept. for Agricultural Chemical Technology, Polytechnical University, Budapest.

(Systems (Chemistry)) (Triethylamine)
(Acetic acid) (Carboxylic acids)

LENGYEL, TAMÁS

Distr: 4E2b(e)/4E3d

The determination of lubricating properties with radioactive tracers. Tamás Lengyel (Hung. Acad. Sci., Budapest). *Magyar Kém. Lapja* 15, 381–9(1960).—Ag^{110} was electroplated on one moving surface and its migration through the lubricant to a 2nd moving surface (bronze) was measured by a Geiger-Müller counter and autoradiography. Exptl. runs were made for 0.5–11 min. at various speeds. During the runs, metal-to-metal contact was made and the bronze surface tore the Ag^{110} atoms away from the other surface. Low radioactivity found on the bronze surface indicates good lubrication. Fourteen lubricants were tested, of which a silicone grease (Badische Anilin und Sodafabrik) was the best, followed closely by Hypoid PC-II (1). I was prepd. from 83% of a base oil, 15% chlorinated paraffin (av. formula $C_{24}H_{33}Cl_{15}$), and 2% additive with the formula $(C_{14}H_9C_4H_4O)_3PO$. Other lubricants tested were white petrolatum (poorest lubricant); the Li compds Liton C-12-II and Liton C-12-IV (better than petrolatum, but with a tendency to thixotropy); Hydromatic Oil (lubrication decreases only slightly with increasing speed); Avton-10 motor oil (inferior); heat- and cold-resistant ball-bearing grease (inferior); special ball-bearing grease (inferior); general machine grease (inferior); Ca grease (medium); Hypoid CK Oil (good); Hypoid O oil (good); PbNa grease (good). In general, oils and greases contg. additives provided better lubrication than those without additives. 54 references.

Peter Marcel Barna

1.16, 1.5

LENGYEL, Tamas

Vapor-liquid equilibrium investigation of nonideal ternary systems. Veszprem vegyip egy kozl 4 no.4:353-354 '60

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

LENGYEL, Tamas

Lubrication capacity examination by means of radioactive tracing technique. Magy kem lap 15 no.9:381-389 '60

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete.

23890
H/005/61/000/008/003/004
D232/D304

21,3230

AUTHORS: Jász, Árpád and Lengyel, Tamás

TITLE: Investigation of binary ion exchange equilibriums with radioisotopes

PERIODICAL: Magyar Kémiai folyóirat, no. 8, 1961, 351-360

TEXT: The artical deals with thermodynamic investigations of ion exchange processes in aqueous solutions, including determination of the equilibrium concentration value and the removal factor of ion-exchange resins used for decontamination of radioactive solutions. For the experiments, the authors used the Dowex 50 WX 8 resin and Na22, Ca45, Fe55, Co60, Ag110, Cs134 and Tl204 isotopes imported by the Országos atomenergia bizottság (National Atomic Energy Committee). The activity coefficient of the resin phase and the equilibrium constant of the ion-exchange process were determined in Tl-Na, Cs-Na and Ag-Na binary electrolyte systems by an integrated version of the Gibbs-Duhem equation. The removal factor is expressed by the equation

$$RF = 1 - [(e^{\alpha + \beta \log p_e + \gamma \log^2 p_e})(1' - e^{2.3 p_e - a})] \qquad (26)$$

Card 1/6

Investigation of binary...

where p_c is the negative logarithm of the val-concentration and from which equation the maximum removal factor, as plotted against the ion concentration, is computed. The relation between the removal factor and the resin phase was investigated in Tl-Na and Ag-Na systems at optimum concentration; the data of the removal factor in Fig. 15 are plotted against the values of the ion val-quotient resulted in the resin phase. This figure also shows that the useful capacity of the resin in decontamination of dilute solutions is only 20-30% of its rated capacity. Above this, the value of the removal factor is so low that the required quantity of the resin and the decontamination rise significantly, thus being disadvantageous for practical purposes. Graphical data of the investigation on binary multivalent cation systems with Th-Cs, Fe-Cs, Co-Cs, and Tl-Cs systems is given. Experiments revealed that a relation exists between the ion valency ratio and the ionic strength of the maximum removal factor; this relation is shown in Fig. 18. Fig. 20 shows the relation between the negative logarithm of the mass action quotient and the negative logarithm of the ionic strength, measured

in the Th-Fe, Th-Co, Fe-Al, Co-Ca and Fe-Co systems. The theoretical data and relations obtained by experiments enabled the determining of optimum conditions of decontamination of radioactive waste in dilute solutions. The authors express their thanks to Academician Géza Schay, Director of the Magyar tudományos akadémia központi kémiai kutató intézet (Central Chemical Research Institute of the Hungarian Academy of Sciences) and to technician Rezsö Kerepes for their help with the experiments. There are 20 figures and 8 non-Soviet-bloc references. The references to the English-language publications read as follows: S.M. Walas: Chem. Engl. Progr., 56. 8. 63. 1960; F. C. Nachod and J. Schubert: Ion Exchange Technology, New York, Academic Press, 1956; H. Levin, W. J. Diamond and E. J. Brown: Ind. Eng. Chem., 51. 313. 1959.

ASSOCIATION: Magyar tudományos akadémia központi kémiai kutató intézet (Central Chemical Research Institute of the Hungarian Academy of Sciences) Budapest.

SUBMITTED: December 28, 1960

Card 3/6

HOLLO, J., prof., dr. (Budapest XI., Gellert ter 4); LENGYEL, T., dr. (Budapest XI., Gellert ter 4); MESZAROS, A. (Budapest XI.,Gellert ter 4)

Conditions for executing computations on binary vapour-liquid equilibria. Periodica polytechn chem 5 no.1:35-39 '61.

1. Department of Agricultural Chemical Technology, Polytechnical University, Budapest.

3[527

S/081/62/000/006/026/117
B171/B101

V.V700

AUTHORS: Jász, Á., Lengyel, T. (II); Jász, Á., Lengyel, T., Schay, G. (III)

TITLE: Investigations of radioactive equilibria by the radioactive tracer method. II. Investigations concerning the deactivation factor in binary monovalent cationic systems. III. Investigations relating to the deactivation factor in binary multivalent cationic systems

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 82-83, abstract 6B574 (Acta chim. Acad. scient. hung., v. 27, no. 1-4, 1961, 247-252; 253-260)

TEXT: II. The deactivation factor (DF) is defined by the authors as the ratio of the initial concentration of the ion to be extracted to the equilibrium concentration of the same ion in the presence of an ion-exchange resin. In Tl-Na, Tl-K, Tl-Cs, Tl-Ag, Cs-H, Cs-Na, Cs-K, Ag-H, Ag-Na, and Ag-K systems, the DF varies with the exponent (i.e., with the negative logarithm) of the ionic force, and the curve representing these

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Card 1/3

variations shows a maximum (Mx). The abscissa of the Mx corresponds to the optimal dilution for extraction of the given ion, with the help of ionite. The values of the DF maxima increase when the atomic weights of the alkali metal, reacting with the selectively adsorbed ion, decrease. The authors explain the high selectivity relative to Tl and Ag by the high polarizability of these ions. If the investigated ions are arranged in the order of increasing maximum values of DF, this sequence will correspond to some order of relative selectivities. The selectivity of ion adsorption depends not only on the nature of ions but also on the concentration of the solution. If a dilute solution is deactivated, only 20 to 30 % of the exchange capacity of the ionite are utilized. Further use of the resin is not expedient because the DF becomes too low and the duration of deactivation shows a considerable increase.

III. In Th—Cs, Fe—Cs, Co-Cs systems, the DF varied also with pC and the curve representing these variations shows a Mx, the position of which, for multivalent-monovalent ion pairs, is displaced proportionally to the ratio between the respective valencies. For the multivalent ion pairs this relationship is not fulfilled. For Fe-Al and Co-Ca pairs, a monotonic increase of DF with pC has been established. For some

JASZ,Arpad; LENGYEL,Tamas

Examination of the multicomponent ion-exchanging equilibriums by radioisotopes. Magy kem folyoir 68 no.4:167-171 Ap '62

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

JASZ, Arpad; LENGYEL, Tamas

Investigation of binary ion-exchange equilibria by means of radioisotopes. Magy kem folyoir 67 no.8:351-369 Ag '61.

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

HOLLO, J., prof. (Budapest XI., Gellert ter 4); LENGYEL, T. (Budapest XI., Gellert ter 4)

Development and use of a three-suffix Scatchard-Hamer equation for quaternary systems. Periodica polytechn chem 5 no.4:305-311 '61.

1. Department of Agricultural Chemical Technology, Polytechnical University.

JASZ, Arpad (Budapest, XII.,Konkoly Thege ut); LENGYEL, Tamas, dr. (Budapest,XII.,Konkoly Thege ut)

Studies on ion-exchange equilibria with radioactive tracer method.Pt. 8. Acta chimica Hung 40 no. 2:167-173 '64.

1. National Atomic Energy Commission, Institute of Isotopes, Budapest.

LENGYEL, Tamas; SOMOGYI, Gyorgy

Synthesis and uses of ^{99m}Tc. Magy kem lap 19 no.8:428-432 Ag '64.

1. Isotope Institute, National Atomic Energy Commission, Budapest (for Lengyel). 2. No.2. Clinic of Internal Medicine, Budapest Medical University (for Somogyi).

LENGYEL, Tamas, kandidatus

Report of the debate on the dissertation presented by Dezso Gal for obtaining the title of Doctor of Chemical Sciences. Kem tud kozl MTA 21 no.3:348-350 '64.

LENGYEL, Tamas; PAVLICSEK, Istvan

Tests in connection with the preparation of ^{125}I. Magy kem folyoir 71 no.2:54-56 F '65.

1. Isotope Institute of the National Atomic Energy Commission, Budapest. Submitted June 4, 1964.

STATICESCU, P., ing.; DIACONU, T., ing.; ZAMFIRESCU, M., ing.; SABADUS, M., ing.; LENGYEL, V., tehn.; JIANU, V.

Dynamics of sugar-beet growing and sugar accumulation in 1964. Ind alim 16 no.3:134-137 Mr '65.

1. Food Research Institute, Bucharest (for Staticescu, Diaconu, Zamfirescu). 2. Central Meteorological Institute (for Jianu). 3. Timisoara Sugar Plant (for Sabadus). 4. Tirgu Mures Sugar Plant (for Lengyel).

[illegible], Z.

"Recuperators Used with Cupola Furnaces", P. 479, (MAGYAR [illegible], Vol. 7, No. 10, October 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 7, No. 3, March 1958, Uncl.

L'NGYEL, T.

"Remarks at the Meeting on Power Economy in the Textile Industry", p. 474, (MAGYAR ENERGIAGAZDALKODAS, Vol. 7, No. 10, October 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.

LENGYEL, Z.

"Report on Labor Competition of Workers", p. 452, (MUNKA, Budapest, Hungary, Vol. 7, No. 10, October 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.

LENGYEL, Z.

Mapping piping for carrying power. p. 357. Magyar Energiagazdasag. Vol. 8, no. 9, Sept. 1955

Source: East European Accessions List (EEAL), Lc, Vol. 5, No. 2, Feb. 1956

LENGYEL, Z.

"Humidity intake of various species of coke."

p. 297 (Energia Es Atomtechnika) Vol. 10, no. 5/6, Aug. 1957
Budapest, Hungary

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

LENGYEL, Z.

COUNTRY : Hungary H-22
CATEGORY :

ABS. JOUR. : RZKhim., No. 20 1959, No. 72593

AUTHOR : Lengyel, Z.
INST. :
TITLE : Measurement of Amounts of Generator Gas

ORIG. PUB. : Energia es Atomtechn., 1958, 11, No 6, 380-382

ABSTRACT : The author reports a number of improvements which increase accuracy, sensitivity, and operation reliability of gas meters. -- S. Rozenfel'd.

CARD:

60

LENGYEL, Zoltan, okleveles kohomernok

Water tests in factories by an UVIFOT photometer. Energia es atom 16 no.1:33-35 Ja '63.

1. Kobanyai Sorgyar.

LENGYEL, Zoltan

Analyzing the pulverization conditions of residual oil burners.
Energia es atom 17 no.10:466-470 O '64.

1. Civil Engineering Designing Enterprise, Budapest.

EAST GERMANY/HUNGARY

ERDELYI, Anne, NYIRI, Laszlo, and LENGYEL, Zoltan L., Biogal Pharmaceutical Works, Debrecen, Hungary (Original-language version not given).

"The Change of Peroxidase and Catalase Enzyme Activity in Submerged Cultures of Penicillium Chrysogenum"

Berlin, Zeitschrift fuer Allgemeine Mikrobiologie, Vol 6, No 4, 1966; pp 329-334.

Abstract [Article in English; authors' English summary]: The effect of phenylacetic acid (PAA) on peroxidase and catalase activity in Penicillium chrysogenum culture broth and in hyphae was investigated. Peroxidase enzyme activity was not influenced significantly by the addition of PAA during cultivation. On the other hand, presence of PAA in the culture broth resulted in an enhancement of catalase activity. After the addition of PAA, the concentration of o-hydroxyphenylacetic acid (o-HPAA) increased in the filtered broth. The rate of formation of o-HPAA was inversely proportional to the rate of biosynthesis of benzylpenicillin. 7 References, all but 1 Western. (Manuscript received 20 Jan 66).

1/1

EAST GERMANY/HUNGARY

NYIRI, L., ERDELYI, Anne, and LENGYEL, Z. L., of Biogal Pharmaceutical Works [original-language version not given] in Debrecen, Hungary.

"Non-Enzymatic and Enzymatic Hydroxylation of Phenylacetic Acid in Penicillium Chrysogenum Cultures"

Berlin, Zeitschrift fur Allgemeine Mikrobiologie, Vol 6, No 5, 1966, pp 379-386.

Abstract: [English article] o-Hydroxyphenylacetic acid forms non-enzymatically in the presence of phenylacetic acid, hydrogen peroxide, and bivalent iron ions in submerged cultures. It forms enzymatically if phenylacetic acid is added to the culture broth. Both processes consume hydrogen peroxide. Enzymatic hydroxylation is inducible. The decrease of the rate of non-enzymatic hydoxylation depended on the catalase activity of cell-free extract. The hydrogen peroxide consuming enzyme activity apperas to compete for hydrogen peroxide and/or free OH radicals which are necessary for the hydroxylation. 20 references, including 4 Hungarian, 2 German, 2 Japanese, i Indian, 1 Russian, and 10 Western. (Manuscript received 20 Jan 1966).
1/1

EXCERPTA MEDICA Sec. 6 Vol. 11/6 June 57

LENGYEL Z.

3593. FÖLDES J., SZÉKELY A. and LENGYEL Z. *Úti Állami Kórház, Beloszt-tályának, Közl., Kutvolgy. *Thyreotrophorinon-terhelés vizsgálatok pajzsmirigy-betegségekben. Load tests with thyroid stimulating hormone (TSH) in thyroid affections ORV. HETIL. 1956, 97/21 (573-577) Graphs 2 Tables 1

For differentiation of affections associated with various functional conditions of the thyroid load tests were carried out with TSH. In cases of thyrogenic hypothyroidism the protein bound iodine (PBI) value remained completely or almost unaltered after administration of TSH, whereas this value showed a marked increase following administration in cases of hypothyroidism of central origin. Whereas the PBI showed a marked increase in euthyroid subjects treated with TSH, there was only a slight increase in hyperthyroid subjects. This phenomenon was attributed to the decreased iodine content of the gland in hyperthyroidism. The results obtained led to the conclusion that this pathophysiological phenomenon was to be used as an aid in the differential diagnosis of mild hyperthyroidism.

(VI, 3)

POLICZER, Miklos, dr.; SZEKELY, Arpad, dr.; FOLDES, Janos, dr.; LENGYEL, Zoltan

Data on the diagnostics of autonomic regulation disorders and hyperthyroidism. Orv. hetil. 97 no.31:846-849 29 July 56.

1. A Kutvolgyi uti Allami Korhaz (igaz. :Hancsok, Mariusz dr.) Belosztalyanak (foorvos: Policzer, Miklos dr., as orvostud. kandidatusa) kozl.

(AUTONOMIC NERVOUS SYSTEM, dis.
regulation disord., diag., blood protein bound iodine determ. (Hun))
(HYPERTHYROIDISM, diag.
blood protein bound iodine determ. (Hun))
(BLOOD PROTEINS, in various dis.
protein bound iodine determ. in diag. of autonomic NS regulation disord. & hyperthyroidism. (Hun))
(IODINE, in blood
protein bound iodine determ. in diag. of autonomic NS regulation disord. & hyperthyroidism. (Hun))

FOLDES, Janos, Dr.; SZEKELY, Arpad, Dr. Lengyel, Zoltan

Iodine clearance tests; relationship between the blood levels of inorganic and protein-bound iodine. Orv. hetil. 98 no.32:370-372 11 Aug 57.

1. A Kutvolgyi uti Allami Korhaz (igazgato foorvos: Hancsok Mariusz, dr.) Belosztalyanak (foorvos: Policzer Miklos dr. az Orvostudomanyok kandidatusa) kozlemenye.

(THYROID GLAND, dis.
diag., iodine clearance tests, significance of relation between blood levels of inorganic & protein-bound iodine (Hun))
(IODINE
clearance tests in thyroid dis., significance of relation between blood levels of inorganic & protein-bound iodine (Hun))

LENGYEL Z

FOLDES, Janos; LENGYEL, Zoltan

Clinical examinations with serum protein-bound iodine. Orv. hetil. 99 no.4:115-121 26 Jan 58.

1. A Kutvolgyi uti Allami Korhaz (igazgato-foorvos: Fenyvesi Jozsef) Belosztalyanak (foorvos: Policzer Miklos, as orvostudomanyak kandidatusa)
(IODINE, in blood
protein-bound, determ. methods & clin. aspects (Hun))

FOLDES, Janos, Dr.; LENGYEI, Zoltan, Dr.

Thyroxan-loading studies in liver, kidney and thyroid diseases. Orv. hetil. 99 no.52:1824-1828 28 Dec 58.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Belklinikajanak (igazgato: Rusznyak Istvan dr. egyet. tanar, akademikus) es a Kutvolgyi uti Allami Korhaz (igazgato: Fenyvesi Jzsef dr.) Belasztalyanak (foorvos: Policzer Miklos dr. az orvostudomanyok kandidatusa) kozlemenye.

(THYROXIN, metab.
disappearance rate of oral thyroxin in kidney, liver & thyroid dis. (Hun))
(KIDNEY DISEASES, metab.
thyroxin disappearance rate after oral admin. (Hun))
(LIVER DISEASES, metab.
same)
(THYROID GLAND, dis.
thyroxin disappearance rate after oral admin. in thyroid dis. (Hun))

NYIRI, L.; LENGYEL, Z.

The use of reducing dyes for the rapid determination of the development of streptomyces rimosus in submerged culture. Acta microb. hung. 6 no.3:171-177 1959.

1. Biological Research Laboratory of the "Hajdusag" Pharmaceutical Works, Debrecen.
(STREPTOMYCES, culture) (DYES)

ROHNY, Bela; LENGYEL, Zoltan

Determination of the protein-bound serum iodine by means of the stable brucine-cerium color reaction. Kiserl. orvostud. 16 no.2:143-148 Ap'64

1. Kozponti Allami Korhaz laboratoriuma, Budapest.

LENGYEL, Zoltan, okleveles kohmernok

Smelting experiments with different types of cokes carried out in cupola furnaces. Ipari energia 4 no.10:226-238 O '63.

1. MELYEPTERV.

NYIRI, Laszlo, dr.; LENGYEL, Zoltan

Significance of microbiological syntheses. Pt. 1. Term tud kozl 7 no.10:435-438 O '63.

1. BIOGAL Gyogyszergyar, Debrecen.

NYIRI, Laszlo, dr.; LENGYEL, Zoltan

Importance of microbiological syntheses.Pt.2. Term kud kozl 7 no.12:541-545 D '63.

1. BIOGAL Gyogyszergyar, Debrecen.

KUCSAK, Geza J.; LENGYEL-[illegible]BO, Gyorgyi

Study of the sulfur dioxide-aniline system. Pt. 3.
Studia Univ B-B S. nom 9 no. 1:77-83 '64.

STEFANESCU, D.; TUCHEL, N.; NECULA, Lucia; ANTONESCU, Vasilica; LENHARDT, E.

Contributions to the study of the stability of PAS sodium injectable solutions. Rumanian M Rev. no.3:80-83 '61.
(PARA-AMINOSALICYLIC ACID chemistry) (CHEMISTRY, PHARMACEUTICAL)

Lenhardt, E.

TUCHEL, N.
SURNAME (in caps); Given Names

Country: Rumania

Academic Degrees: Chemist Pharmacist

Affiliation: --

Source: Bucharest, Farmacia, No 6, 1961, pp 351-356.

Data: "Contributions to the Study of the Stability of Chloral Hydrate Solutions. II."

Co-author:
LENHARDT, E., Pharmacist.

LENHART, V., inz.

The new standards. Elektroprivreda 15 no.11/12:558-559 N-D '62.

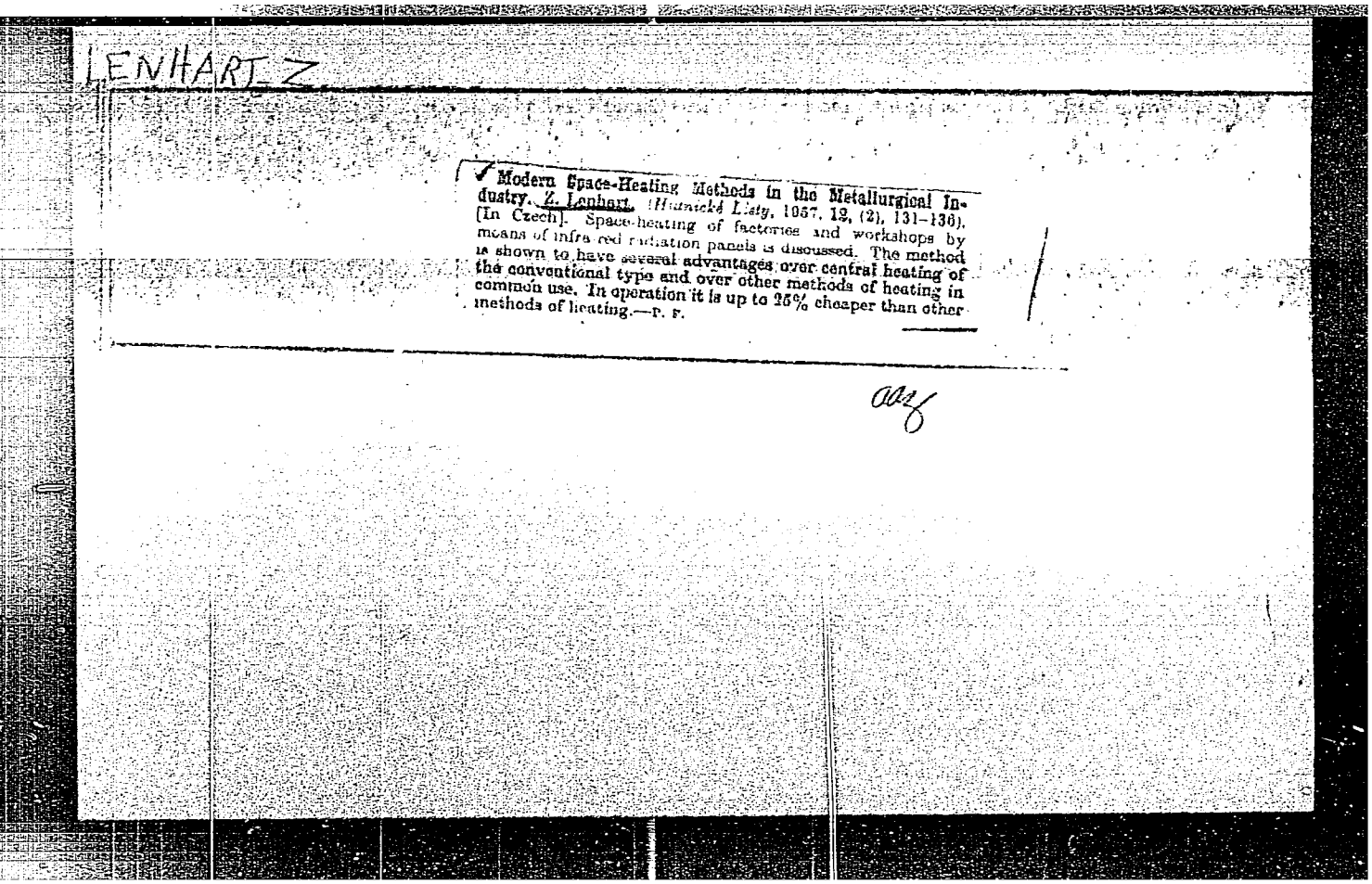
LENHART, Valter, ing.

Automatization of hydroelectric-power stations under our present conditions. Automatika 2 no.3:166-168 Ag '61.

(Automation) (Hydroelectric-power stations)

LENHART, Valter, inz. (Ljubljana)

Automation of the devices for the preparation of foundry sand.
Avtomatika 3 no.4:254-257 Ag '62.



LENHARTZ

Modern Space-Heating Methods in the Metallurgical Industry. Z. Lenhart. *Hutnické Listy*, 1957, 12, (2), 131–136). [In Czech]. Space-heating of factories and workshops by means of infra-red radiation panels is discussed. The method is shown to have several advantages over central heating of the conventional type and over other methods of heating in common use. In operation it is up to 25% cheaper than other methods of heating.—P. F.

LENHERT, K.

Tasks and prospects of the communications industry. p. 280
SLABOPROUDY OBZOR, Vol. 15, no. 6, June 1954, Prague.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956 Uncl.

LENI, Zh.F. [Le Ny, J.F. (Frantsiya)]

Materialistic social psychology. Vop. psikhol. 9 no.1:146-150 Ja-F '63. (MIRA 16:4)

(Social psychology)

LEPIOKIN, A. I.

Arithemtic - Problems, Exercises, Etc.

Solution of certain arithmetical problems. Mat. v sakole No. 3, 1952.

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

LENICHKIN, A.I. (pos. Zelenogradskaya Moskovskoy obl.)

Formulas for abridged multiplication in a course for class 6.
Mat. v shkole no.1:61-69 Ja-F '55. (MLRA 8:2)
(Multiplication)

LENICHKIN, A.I. (Moskovskaya obl.)

Preventing some arithmetical mistakes. Mat.v shkole no.4:49-52 Jl-Ag '62. (MIRA 15:11)
(Arithmetics--Study and teaching)

POLAND / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 82008

Author : Rusiecki, Wladyslaw; Bidzinski, Zygmunt; Lonicka, Joanna

Inst : Not given

Title : The Use of Thio Compounds for the Detection of Metals in Forensic Chemical Analysis

Orig Pub : Farmac. polska, 1959, 15, No 7, 113-115

Abstract : The possibility of using thioacetamide and Na_2CS_3 instead of H_2S in forensic chemical analysis for the detection of Hg and As was studied. For the detection of Hg by precipitation from solutions obtained, following the mineralization of the biological material to be analyzed, Na_2CS_3 was found to be most useful; thioacetamide behaves similarly to H_2S. The

Card 1/2

Card 2/2

05292
SOV/170-59-8-3/18

24(8)

AUTHOR: Leniger, Kh. A.

TITLE: Convective Drying of Solid Food Products

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 8, pp 23 - 34 (USSR)

ABSTRACT: This paper represents a translation from the English and is provided with an extensive English text a part of which is reproduced below. At the beginning of the drying process evaporation takes place at the solid air interface. The process can be described by Equation 4. The rate of drying depends on the ratio between the surface mass transfer coefficient k and the unsteady state interior diffusion with diffusivity D'. When $kR/D' \gg 1$, the situation of Figure 2a arises, when $D'/kR \gg 1$ one has the case of Figure 2b, whereas the normal case is shown in Figure 2c. The diffusivity D' decreases with decreasing moisture content. During drying liquid water and vapor diffusion exist side by side. In general liquid diffusion predominates at high moisture contents and vapor diffusion is more important at lower water contents. D' has to be considered as a coefficient in which the combined effects of liquid and vapor diffusion find expression. During drying from a high moisture content to a very low one successively the cases of Figure 2b, 2c and finally 2a are passed through. The drying rate falls

Card 1/2

Convective Drying of Solid Food Products

05292
SOV/170-59-8-3/18

steadily because of the continuously decreasing vapor pressure at the interface and the shrinkage of the material. There are several indications that the internal diffusion is the main controlling factor. As a first approximation it may be supposed that the course of drying is logarithmic. Strong deviations from the logarithmic course and strong changes in the direction of rate curves point to considerable changes in D'. When a rate curve is known the moisture distribution during drying can be derived; from data on moisture distribution or temperature of the material during drying one can deduce the rate curve. Depending on the initial and final moisture contents, drying conditions, variation in D' and thickness of the material, all types of drying rate curves can be expected. Qualitatively the whole drying process can be described quite clearly and logically, but for obtaining quantitative data one depends entirely on experiments.
There are: 4 graphs and 4 references, 2 of which are American and 2 German.

ASSOCIATION: Sel'skokhozyaystvennyy universitet (Agricultural University), Wageningen, Netherlands

Card 2/2

LENIN. Yu. K.

Report Presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

168. A. D. Lotin (Dnepropetrovsk): On space buckling of columns in the elastic-plastic range.

169. V. A. Lomakin (Moscow): Fibre-creep at room temperature.

170. V. S. Lensky (Moscow): Plasticity of metals under combined loading.

171. A. I. Leonov (Moscow): Some problems of non-stationary flow of an incompressible visco-elastic (Maxwellian) liquid.

172. A. I. Leonov, M. D. Rainer (Moscow): Some problems of unsteady flow of an incompressible visco-elastic (Maxwellian) liquid.

173. M. Ia. Leonov (Lvov): The generalization of the torsion theory of thin-walled bars.

174. M. Ia. Leonov, V. V. Panasyuk (Lvov): The development of microcracks.

175. The N. Smith (Tartu): Plastic flow of circular plates under tension and bending or compression and bending.

176. G. I. Petrashenko (Leningrad): Torsion of an anisotropic curved bar.

177. A. D. Sidorov (Perchorsk): Free vibrations and stability of ordinary and prestressed elastic reinforced beams.

178. A Sirenko (Krakow): Displacement of rocks due to excavation of coaling layers.

179. R. V. Sirkhov (Kiev): On the application of matrix transformation to the solution of large sets of linear equations of elasticity theory.

180. I. Letnik (Tomsk): The selection of optimal parameters for structures of equal stability consisting of plates and stringers.

181. D. A. Sobolevskii (Moscow): Large deflections of shallow shells of curvilinear elastic materials.

182. A. A. Ilyushin (Moscow): Methods for the solution of the problems of antisymmetric stress of thin shells of revolution.

183. A. Malkiewicz (Gdansk): Analysis of an orthotropic circular conical shell under an arbitrary load applied to a ring.

184. A. V. Malkovich (Kiev): On the experimental study of strains in plates and shells.

185. P. I. Malinin (Novosibirsk): Creep strains and ruptures of high polymers.

186. B. I. Malkin (Sverdlovsk): Vibrations of non circular cylindrical shells.

187. A. K. Malmeister (Riga): Some problems of combined loading of quasi-isotropic bodies.

188. K. A. Malyar (Leningrad): The influence of structural discontinuity in concrete on its strength.

189. S. G. Mamedov (Baku): Investigation of the state of stress in a square plate with conical cylindrical hole under internal pressure.

190. G. F. Manandzhidze (Tbilisi): Solving the plane elastic problem for anisotropic bodies by reduction to the problem of linear coupling with displacements.

191. I. I. Markish, Th. A. Shatilaev (Dnepropetrovsk): The rigidity of a cylindrical shell in bending.

192. V. M. Marguerre (Moscow): Stress and strain in naturally twisted bars.

193. V. I. Maslennikov (Tomsk): The problem of conformal transformation and plane elasticity for the exterior of an infinite number of holes.

194. Sai. A. Matchitt (Moscow): The design of finite and infinite beams on elastic foundation including time effects and without adopting the hypothesis of Zimmerman and Winkler.

195. A. D. Matsenyukii (Stalino): Vibrations of a curved bar in an elastic medium and on elastic supports.

196. A. R. Meridian (Erevan): An experimental study of basic creep law for soils.

197. G. S. Mikhasiv (Novosibirsk): On statically equivalent loadings.

198. M. Sh. Mikeladze (Tbilisi): Contribution to the theory of plastic shells of uniform strength.

199. A. S. Minaeiia (Erevan): On the bending of a simply supported parallelogram plate.

200. A. V. Mikhailov (Moscow): Evaluation of the rheological properties of plastic materials and creep in homogeneous stress-state under constant shearing stress.

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AUTHOR: Lenik, Z.Kh.

TITLE: On the second method of Lyapunov with quadratic forms depending on parameters, for the application to a non-linear system of autonomous differential equations with a linear part

PERIODICAL: Referativnyy zhurnal. Matematika, no. 4, 1961, 39, abstract 4 B 205. (Mezhdunar. federatsiya po avtomat. upr. 1-y Mezhdunar. kongress po avtomat. upr M., An SSSR 1960, 11 p.)

TEXT: The author expresses his dissatisfaction about the insufficient practical value of the second method of Lyapunov and proposes to construct the Lyapunov function as a function of certain parameters ; the mentioned parameter are given as coefficients of a quadratic form which (after the substitution of the linear part of the investigated system) shall be the derivative of the sought function. The proposed method is used in order to investigate the stability of a guided missile . It must be remarked that the proposed method is not new (cf.e.g. M.A. Ayzerman,Teoriya avtomaticheskogo regulirovaniya dvigateley, GITTL (G ITTL) 1952, Chapter 13). [Abstracter's note : Complete translation.]

Card 1/1

LENIN, A.E.

KHARITONOV, Yu. G., tokar'; LENIN, A.E., redaktor; LEVONEVSKAYA, L.G., tekhnicheskiy redaktor,

[In search of new methods] V poiskakh novogo. [Leningrad] Lenizdat, 1956. 55 p. (MLRA 10:4)

1. Leningradskiy metallicheskiy zavod (for Kharitonov).
(Turning)