

FISCHER, J.; CSAKI, P.

Analysis of reaction curves by extreme values. Acta med. Hung. 18  
no.3:363-370 '62.

1. Biometrical Department, Mathematical Institute of the Hungarian  
Academy of Sciences, Budapest.  
(STATISTICS)

SZEKELY, J.I.; CSAKI, P.; DEMETER, Agnes

Mathematical analysis of the electroencephalograms of neurotic rats. Acta physiol. acad. sci. Hung. 26 no.1:117-121 '65

1. Institute of Physiology, University Medical School, Budapest, and Biometrical Division, Mathematical Research Institute, Hungarian Academy of Sciences, Budapest.

HUNGARY

SZEKELY, Jozsef, Ivan, Dr, CSAKI, Peter; Medical University of Budapest, Institute of Physiology (director: BALINT, Peter, Dr, professor) (Budapesti Orvostudományi Egyetem, Elettani Intézet), and Hungarian Academy of Sciences, Mathematical Research Institute, Department of Biometry (director: RENYI, Alfred, Dr, professor) (MTA -- Magyar Tudományos Akadémia --, Matematikai Kutató Intézet, Biometriai Osztály).

"Method for the Measurement of Synchronization of the EEG Graphs."

Budapest, Ideggyógyászati Szemle, Vol XIX, No 4, Apr 66, pages 126-128.

Abstract: A mathematical formula is presented for the measurement of synchronization of the EEG graphs. It is:  $I = \frac{T}{n s^2} \mu V/\text{millisecond}$  where I = synchronization index, T = the area limited by the isoelectric line or an approximation of it, n = frequency, s = scattering of the distance between peaks. The EEG of a 29 year old subject, taken with closed eyes and rich in  $\alpha$  waves, was desynchronized in 4 sequences with gradually weakened 1000 Hz sound stimulation. The results of the experiment, evaluated by using the method described, are presented in the article. 1 Hungarian, 3 Western references.

1/1

SZASZ, G.; CZIRBESZ, Zsuzsa; CSAKI, P.

Determination of the enzymatic activity in childhood. IV. Beta glucuronidase in the serum and urine in nephrotic syndrome. Acta paediat. Acad. sci. Hung. 5 no.3:349-365 '64

1. Universitätskinderklinik Frankfurt a.Main., Heim Pal-Kinderkrankenhaus, Budapest, und Biometrische Abteilung des Mathematischen Forschungsinstitut der Ungarischen Akademie der Wissenschaften, Budapest.

SZASZ, G.; CZIRBESZ, Zsuzsa; KIRALY, L.; CSAKI, P.

Determination of the enzymatic activity in childhood. V. Serum cholinesterase in nephrotic syndrome. Acta paediat. Acad. sci. Hung. 5 no.3:367-390 '64.

1. Heim Pal-Kinderkrankenhaus und Biometrische Abteilung des Mathematischen Forschungsinstituts der Ungarischen Akademie der Wissenschaften, Budapest.

LÉNGYEL, Bela, a kémiai tudományok doktora (Budapest); CSAKVARI, Bela  
(Budapest)

The alkaline error of the glass electrode. II. Effect of the glass  
composition on the alkaline error. Kem tud kozl MTA 14 no.1:55-61  
'60. (EEAI 9:12)

1. Eotvos Lorand Tudományegyetem Általános és Szervetlen Kémiai  
Intézete, Budapest.  
(Glass) (Electrodes)

USUKVANKI, D.

HUNG.

78915\* Alkal-Free Suspension Buffers. Alkallmentes szuszpenziós pufferek. (Hungarian) Bela Lengyel and Bela Csikvari. Magyar Kémiai Folyóirat, v. 81, no. 3, Mar. 1955, p. 48-50. Properties of the systems: Ba(OH)<sub>2</sub>-BaCl<sub>2</sub>, Mg(OH)<sub>2</sub>-MgSO<sub>4</sub>, Zn(OH)<sub>2</sub>-ZnSO<sub>4</sub>; dependence of the pH upon the salt concentration; temperature coefficients of the pH and buffer capacity. Graphs. 1 ref.

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Alkali-free suspension buffers. (Bela Lengyel and Bela Csakvari (Eötvös Univ., Budapest). *Magyar Kém. Folyóirat* 79-80(1955).) — Buffer systems free of alkali, not sensitive against the action of CO<sub>2</sub> in air, and suited for the prepn. of systems of identical pH values but of different concns. of alkali ions can be obtained by dissolving 10 g Ba(OH)<sub>2</sub>·8H<sub>2</sub>O and 0.8 mole BaCl<sub>2</sub>·2H<sub>2</sub>O in 1000 ml. dist. H<sub>2</sub>O and shaking 1 hr. The system, with a pH of 10.34 at 25°, was stable for 1 year. In another method 10 g alkali-free MgO and 1 mole MgSO<sub>4</sub>·7H<sub>2</sub>O are dissolved in 1000 ml. dist. H<sub>2</sub>O and shaken for 1 hr. The pH of the product, 9.18 at 25°, was stable. In the 3rd method 10 g alkali-free ZnO and 1 mole ZnSO<sub>4</sub>·7H<sub>2</sub>O are dissolved in 1000 ml. dist. H<sub>2</sub>O and shaken 1 hr. The pH of the product was 8.55 at 25°, and was as stable as the previous one. The preps. should be shaken prior to use and allowed to stand 10 min., since the coarse suspended particles may cause deviations of some hundredth of a unit. I. R.



HUNGARY/Laboratory Equipment. Instrumentation.

F

Abs Jour: Ref Zhur-Khin., No 24, 1958, 81416.

negative error occur, certain acceptors are substituted by others that possess different bondage energies with the protons, and thus causes the electrode potential to change. The experiments demonstrated that in concentrated solutions of HCl and HClO<sub>4</sub> the error is the function of time, provided that the solutions contain undissociated acid molecules. The authors explain the dependency of this phenomenon by the difference of HCl concentration and particularly by the fact that HCl molecules do penetrate into the layer of swelling and that the penetration rate depends on the concentration of the adsorbed layer. -- S. Rosenfel'd.

Card : 2/2

43

CSAKVARI, B ; MURANYI, S.

The temperature of dependence of the alkaline error of lithium glass electrode.

p. 97 (Magyar Kemikusok Egysülete) Budapest, Vol. 63. no. 4/5 Apr./May 1957

SO; Monthly index of East European Assessments (AEEI) Vol. 6, No. 11 November 1957

Csakvari, B. ; Szomolanyi, J.

Problem of material management in the building - and the building - material industry. p. 111.

EPITESUGYI SZEMLE. Budapest, Hungary. No. 4, 1959.

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

Uncl.

LENGYEL, Bela, Prof., dr. (Budapest VIII, Muzeum korut 6-8); CSAKVARI, Bela  
(Budapest VIII, Muzeum korut 6-8); BOXSAY, Zoltan (Budapest VIII,  
Muzeum korut 6-8)

Data on the alkal error of the glass electrode. I. The problem of  
interpretation of the alkali error. Acta chimica Hung 25 no.2:225-  
242 '60. (EEAI 10:4)

1. Institute of General and Inorganic Chemistry, L.Eotvos  
University, Budapest.

(Sodium) (Errors, Theory of) (Electrodes)  
(Ion exchange) (Cations) (Glass)

CSAKVARI, Bela; HALMOS, Teresz; TOROK, Ferenc

An account of the Dresden Conference on Silicon Chemistry.  
Kem tud kozl 20 no.3:410-413 '63.

1. Eotvos Lorand Tudományegyetem Általános és Szervetlen  
Kémiai Tanszéke, Budapest.

LENGYEL, Bela, prof., dr. (Budapest, VIII., Múzeum korut 6-8)  
CSAKVARI, Bela (Budapest, VIII., Múzeum korut 6-8)

On the direct synthesis of methyl chloro silanes. Pt.1.  
Acta chimica Hung 39 no.1:27-32 '63.

1. Institute of General and Inorganic Chemistry, L. Eotvos  
University, Budapest, and Research Group for Inorganic Chemistry  
of the Academy of Sciences, Budapest.

2. Editorial board member, "Acta Chimica Academiae Scientiarum  
Hungaricae" (for Lengyel).

BR

ACCESSION NR: AT4009523

H/2502/63/039/001/0033/0037

AUTHOR: Csakvari, B.; Garzo, G.; Jenei, S.

TITLE: On the Direct Synthesis of Methylchlorosilanes

SOURCE: Academia scientiarum hungaricae. Acta chimica, m v. 39, no. 1, 1963, 33-37

TOPIC TAGS: silane, silane production, silicon compound, dichlorosilane, methylchlorosilane

ABSTRACT: Methylchlorosilanes were obtained by methylating dichlorosilane ( $\text{SiH}_2\text{Cl}_2$ ), which, in turn, is a decomposition product of trichlorosilane ( $\text{SiHCl}_3$ ). An apparatus shown in ENCLOSURE (1) was used.  $\text{HCl}$  gas, mixed with varying amounts of  $\text{BCl}_3$  catalyst was introduced into reactor A, where they were agitated and reacted with an 80:20 Si-Cu alloy contact mass. A mixture of chlorosilanes was formed. It contained 35% dichlorosilane by weight, proving that this was an intermediate substance in the formation of methylchlorosilane ( $\text{CH}_3\text{SiHCl}_2$ ). The mixture was drawn off, mixed with  $\text{CH}_3\text{Cl}$ , and conducted into reactor B. There it was again brought into contact with an Si-Cu alloy.

Card 1/3

ACCESSION NR: AT4009523

Reactors A and B were operated at 300°C. From B, the products were conducted to a cooler and separated by fractional distillation from CH sub 3 Cl. The amounts of reagents and catalyst used and product compositions are tabulated. The effectiveness of the BCl sub 3 catalyst is evident; BCl sub 3 also catalyzed the equilibrium rearrangement of methylchlorosilanes and tetrachlorosilane. Later, a single reactor (described in Acta Chimica Hungar. v. 39, p. 27) was used instead of reactors A and B. This was simpler and more practical, although the product yield was not as good as with the two-reactor arrangement. Enclosures; 01. Original article has: 1 diagram, 1 table, 1 graph.

ASSOCIATION: Eotvos Lorand Tudományegyetem, Általános és Szervetlen-Kémiai Intézet (Institute of general and inorganic chemistry, L. Eotvos university); Budapest and Magyar Tudományos Akadémia, Szervetlen Kémiai Kutatócsoport (Research group for inorganic chemistry, Hungarian academy of sciences)

SUBMITTED: 18May63

DATE ACQ: 24Jan64

ENCL: 01

SUB CODE: GC

NO REF SOV: 003

OTHER: 007

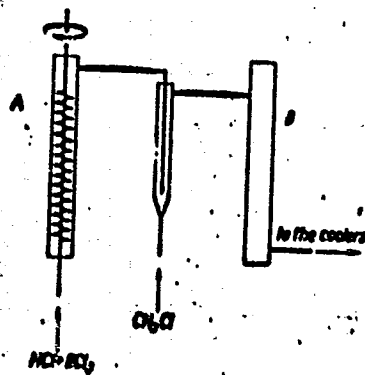
Card

2/3



ACCESSION NR: AT4009523

ENCLOSURE: 01



Card 3/3

CSAKVARI, Bela, a kémiai tudományok kandidátusa

An account of my student trip to Czechoslovakia. Kem tud kozl  
MTA 22 no.3/4:451-452 '64.

1. Chair of General and Inorganic Chemistry, Lorand Eotvos  
University, Budapest, and Research Group on Inorganic Chemistry,  
Hungarian Academy of Sciences, Budapest.

CSAKVARI, Bela; KNAUSZ, Dezso; LASZTITY, Simon

Oxygen ion activity of borate glass melts. Magy kem folyoir  
70 no.9:400-403 S '64.

1. Chair of General and Inorganic Chemistry, Lorand Eotvos  
University, Budapest, and Research Group of Inorganic  
Chemistry, Hungarian Academy of Sciences, Budapest.

L 07014-67 DS

ACC NR: AT7001013

SOURCE CODE: HU/2502/65/046/002/0151/0157

AUTHOR: Bokshai, Z. (Dr.); Bouquet, Gusztav--Bake, G. (Dr.), and Csakvari, Bela,--Chakvari, B. (Dr.)

ORG: Institute for General and Inorganic Chemistry at L. Eotvos University,  
and Research Group for Inorganic Chemistry at the Hungarian Academy of Sciences  
(Original-language versions not given), both in Budapest

"Interpretation of Jordan's Equation Introduced for the Calculation of the  
Alkaline Error of Glass Electrodes"

Budapest, Acta Chimica Academiae Scientiarum Hungaricae, Vol 46, No 2,  
5 Dec 1965, pp 151-157.

Abstract: [English article] The constants in the equation described by  
JORDAN, D. O., (Trans. Farad. Soc., Vol 34, 1938, p 1305) were interpreted  
in terms of factors and coordinate relations determined by thermodynamic  
functions and average activity coefficients of the solutions. Alkaline  
error values for glass electrodes were calculated with the aid of this equa-  
tion and it was found that these values correlate well with experimentally  
established figures. Orig. art. has: 1 figure, 24 formulas and 3 tables.

[JPRS: 33,906]

TOPIC TAGS: glass electrode, electrochemistry

SUB CODE: 07,09 / SUBM DATE: 29Mar65 / ORIG REF: 003 / SOV REF: 001 / OTH REF: 003

Card 1/1 *eqh*

L 46222-66 EMP(j) RM

ACC NO: AT6034082

SOURCE CODE: HU/2502/65/045/001/0031/0036

AUTHOR: Csakvari, Bela--Chakvari, B.; Jenei, Sandor--Yenem, Sh.; Knausz, Dezas--  
Knaus, D.; Telegdi, Lajos26  
BTORG: Department of General and Inorganic Chemistry, Eotvos Lorand University (Eotvos  
Lorand Tudományegyetem, Általános és Szervetlen Kémiai Tanszék); Research Group of  
Inorganic Chemistry, Hungarian Academy of Sciences, Budapest (Magyar Tudományos Akadémia  
Szervetlen Kémiai Kutatócsoport)TITLE: Direct synthesis of alkylchlorosilanes III. Synthesis of ethylchlorosilanes  
from a mixture of ethyl chloride and gaseous hydrogen chloride

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 45, no. 1, 1965, 31-36

TOPIC TAGS: silane, chemical synthesis

ABSTRACT: Experimental evidence has been gathered to show that the interaction of  
trichlorosilane and ethyl chloride results in the formation of trichloroethylsilane.  
This reaction plays an important role in the direct synthesis of ethylchlorosilanes  
from a gaseous mixture of hydrogen chloride and ethyl chloride. Orig. art. has:  
4 figures and 2 tables. [Orig. art. in Eng.] [JPRS: 33,540]SUB CODE: 07 / SUBM DATE: 27Oct64 / ORIG REF: 003 / SOV REF: 005  
OTH REF: 003

Card 1/1 mjs

L 00716-67 T DS

ACC NR: AT6035440

SOURCE CODE: HU/2302/66/048/001/0001/0009

CSAKVARI, B., DOBOS, S., and PEKARI-KISREPESEI, M., Department of General and Inorganic Chemistry, L. Eotvos University, and Research Group for Inorganic Chemistry, Hungarian Academy of Sciences, Budapest [Original-language version not given].

" Alkaline Error of Glass Electrodes, IV. Investigation of the Alkaline Error Caused by Lithium Ions."

Budapest, Acta Chimica Academiae Scientiarum Hungaricae, Vol 48, No 1, 1966; pp 1 -9.

Abstract [Authors' English summary, modified; Article in German]: The activity coefficient of the lithium ions in the surface layer of the glass depends on the composition of the layer determining the potential, i.e. on the molar fraction of lithium ions in the surface layer. Molar fractions calculated from measured e.m.f. data were compared with the quantity of lithium ions penetrating into the surface layer of glass, in order to acquire further data regarding the operation of glass electrodes.

Orig. art. has: 4 figures, 17 formulas and 3 tables. APRS: 36,8627

TOPIC TAGS: glass electrode, lithium compound

SUB CODE: 07,09 / SUBM DATE: 01 Jun 65 / ORIG REF: 005 / OTH REF: 004  
SOV REF: 001

Card 1/1 vl-

29  
B71

-0921 2155

L 45351-66 T DS

ACC NR: AT6033611

SOURCE CODE: HU/2502/65/043/002/0177/0185

AUTHOR: Lengyel, Bela--Lendel, B. (Doctor; Professor; Budapest); Csakvari, Bela--  
Chakvari, B. (Doctor; Professor; Budapest); Toperczer, Johanna--Topertser, Y. (Doctor;  
Budapest)

ORG: [Lengyel; Csakvari] Department of General and Inorganic Chemistry, Eotvos  
Lorand University, Budapest (Eotvos Lorand Tudományegyetem, Általános és Szervetlen  
Kémiai Tanszék); [Toperczer] Oncological Institute, Budapest (Onkológiai Intézet)

TITLE: Alkaline error of the glass electrodes. III. New data on the interpretation  
of the alkaline error

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 43, no. 2, 1965, 177-185

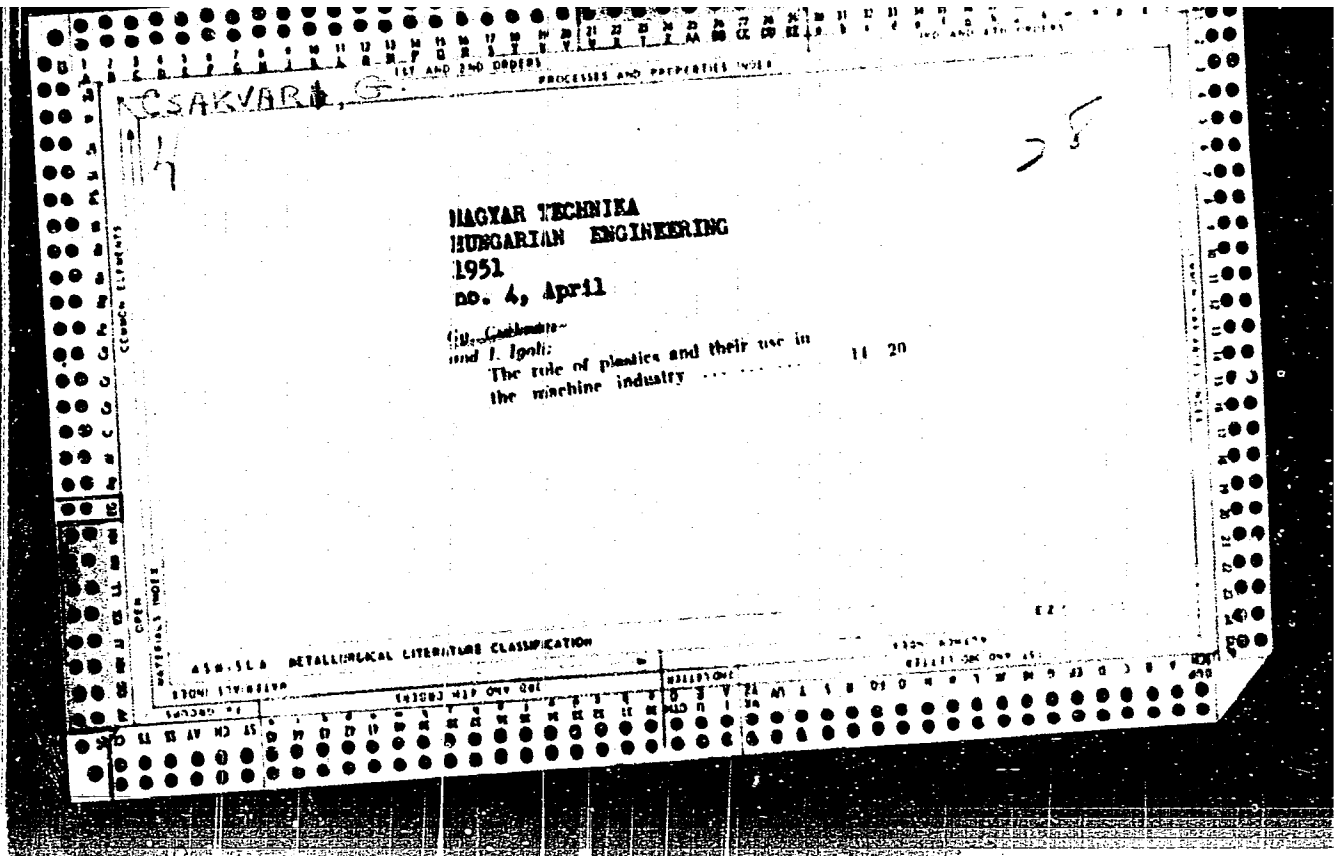
TOPIC TAGS: electrochemical analysis, glass electrode

ABSTRACT: The mole fraction of sodium ions present in the surface layer of the  
MacInnes-Dole glass was determined by the radiochemical tracer method (using  $^{24}\text{Na}$ )  
and the results were compared with mole fractions calculated from measured values  
of electromotive force. The rather good agreement between the mole fractions can  
be considered as an experimental proof of the theory proposed by the authors for the  
quantitative interpretation of the alkaline error. Orig. art. has: 2 figures,  
20 formulas and 1 table. [Based on authors' Eng. abst.] [JPRS: 33,546]

SUB CODE: 07, 09 / SUBM DATE: 24Nov64 / ORIG REF: 002 / OTH REF: 006

Ccd 1/1 *awn*

0920 1655





CSAKY, Gergely, dr.; MISKOLCZYNE HORVATH, Gabriella

Data on the causes and liquidation of infection with *Enterobius vermicularis* in children's communities. Orv. hetil. 102 no.20:934-937  
14 Ny '61.

1. Hajdu-Bihar Megyei Közegészségügyi-Járványügyi Allomás, Debrecen.

(OXYURIASIS in inf & child)

CSAKY, Gergely, dr.; BOJAN, Maria, dr.

Fatal familial food poisoning caused by *Salmonella typhimurium* in hen eggs. Orv. hetil. 103 no.29:1371-1376 22 J1 '62.

1. Hajdu-Bihar megyei Kozegeszsegugyi -- Jarvanyugyi Allomas, Debrecen.  
(SALMONELLA INFECTIONS case reports) (EGGS microbiol)

CSAKY, Gergely, dr.; BOJAN, Maria, dr.

Fatal familial food poisoning caused by *Salmonella typhimurium* in hen eggs. Orv. hetil. 103 no.29:1371-1376 JI '62.

1. Hajda-Bihar megyei Kozegeszsegugyi — Jarvanyugyi Allomas,  
Debrecen.

(SALMONELLA INFECTIONS case reports) (EGGS microbiol)

CSÉH, György, dr.; NAGY, István, dr.; KOVÁCSNÉ SZABÓ, Ilona; CSAKY, György, dr.

Influencing of the serum properdin levels of patients with neoplasms by parenteral administration of symosan. Orv. hetil. 101 no.7:222-225 F '60.

1. Gyógysszeripari Kutató Intézet, Biokémiai Osztály és XIII. ker. Szakorvosi Rendelőintézet.

(POLYSACCHARIDES pharmacol.)

(NEOPLASMS blood)

(PROPERIDIN)

CSAKY, Gyorgy; HANCSEK, Marius; HAGY, Istvan; CSEH, Gyorgy

Therapeutic experiments in connection with zymosan therapy of late toxemias (preliminary report). Magy. orv. lap. 20 no.6: 373-375 N '59.

1. Fovarosi Janos korhas II. szuleszeti es nagygyaszati osztalyanak kozlemenye (Igazgato: Hako Jozsef dr. Oszt. ves. feorvos: Hancsek Marius dr.).

(PREGNANCY TOXEMIAS ther)  
(POLYSACCHARIDES ther)

KUDELKA, Denesne; CSAKY, Ida

Investigations in conjunction with drying brick and roof tile materials.  
Epitoanyag 12 no.12:451-454 D '60.

HUNGARY

PALYI, Iren, Dr, TOTH, Geza, CSAKY, Laszlo, AFRA, Denes, Dr, ZOLTAN, Laszlo, Dr; Budapest Medical University, Institute of Histology and Development (Budapesti Orvostudományi Egyetem Szövet- és Fejlődéstan Intézete) (director: TORO, Imre, Dr, academicien), National Neurosurgical Scientific Institute (Országos Idegsebészeti Tudományos Intézet) (director: ZOLTAN, Laszlo, Dr).

"Behavior of Gliomas in Tissue Culture II. Effect of X-Rays on the Phosphorus Metabolism of Glioma Cultures."

Budapest, Ideggyógyászati Szemle, Vol XIV, No 3, Mar 63, pages 93-96.

Abstract: [Authors' Hungarian summary] Phosphate metabolic tests were carried out on glioma tissue cultures 6 and 22 hours after single irradiation of the tissue with 6000 r. The irradiated cultures showed elevated activity in acid-soluble phosphorus fractions than did the controls. The activity of the lipid and DNA (deoxyribonucleic acid) fractions, on the other hand, was lower than that of the controls. Normal tissues show no consequent changes in their phosphorus metabolism after irradiation with single large doses of X-rays. 2 Hungarian, 18 Western references.

1/1

GYEVAI, Angela; TOTH, Geza; CSAKY, Laszlo

P32 in the study on heart metabolism in rats receiving corhomon and isolanid. Kiserl. orvostud. 14 no.1:68-73 Mr '62.

1. MTA KOKI Morphologiai Osztalya es Orvostudomanyi Egyetem Szovet-  
es Fejlodestani Intezete, Budapest.

(MYOCARDIUM metab)

(HEART extract)

(PHOSPHORUS radioactive)

(DIGITALIS pharmacol)



PALYI, Iren, dr.; TOTH, Geza, CSAKY, Laszlo; AFRA, Denes, dr.; ZOLTAN, Laszlo, dr.

Behavior of gliomas in tissue culture. II. The effect of x-ray on the phosphorus metabolism of glioma cultures. Ideggyogy. szemle 16 no.3:93-96 Mr '63.

1. Budapesti Orvostudományi Egyetem Szövet- és Fejlődéstan Intézete (Igazgató: Toro Imre dr. akadémikus), Országos Idegsebészeti Tudományos Intézet (Igazgató: Zoltan Laszlo dr.) közleménye.

(GLIOBLASTOMA MULTIFORME) (RADIATION EFFECTS)  
(ASTROCYTOMA) (TISSUE CULTURE) (PHOSPHORUS) (DNA)

RUMANIA

576.8.097.35-085.371

TOPCIU, VL., PLAVOSIN-BABUSCEAC, Livia, CSAKY, N., RADU, M., VOICULESCU, D., TRANDAFIRESCU, Virginia, NICOLAU, I., STEFAN, Margareta, COMSULEA, Lia, and KECSKES, Elisabeta, of the Institute of Hygiene and Public Health (Institutul de Igiena si Sanatate Publica), Timisoara.

"The Evolution of Antivariolic Postvaccinal Immunity in Different Age Groups Expressed by the Titer of Agglutination Inhibition Antibodies."

Bucharest, Studii si Cercetari de Inframicrobiologie, Vol 17, No 4, 66, pp 317-321.

Abstract: In a study of 1,074 sera from persons of various ages, 84.3 percent contained various amounts of antivaccine hemagglutinating antibodies. The curve of average titer versus age shows 4 peaks corresponding to maternal antibodies, first vaccination, revaccination at 7 years, and revaccination in the armed services. Small titers of the antibodies persist throughout life, with higher levels for approximately 3 years following vaccination.

Includes 2 figures and 9 references, of which 2 Russian, 3 German and 4 Western.

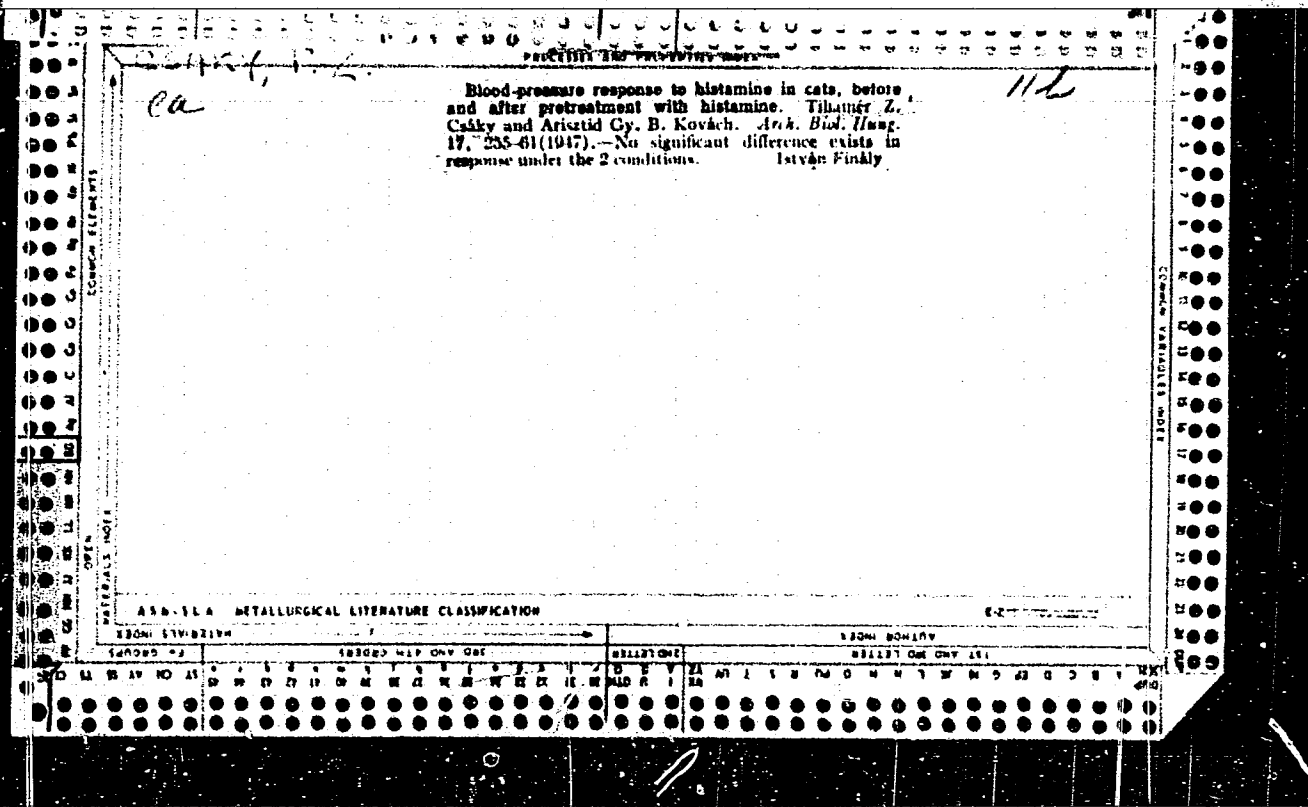
1/1

CSAKY, Nicolae, dr.

Cancer in the test tube. St si Teh Buc 17 no.3:40-41 Mr '65.

1. I.M.T.-Inframicrobiology, Timisoara.





PROCESSES AND PROPERTIES INDEX

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*CSAKY, T. Z.*

*CA*

Improving the biological value of bread made with corn flour by the addition of extracted sunflower meal. Tihambér Z. Csáky. *Arch. Biol. Hung.* 17, 319-29(1947).—Ten kinds of breads were tested 24 hrs. after baking by a group of 30 adult persons. Bread prepd. from wheat 35, rye 10, corn 35, barley 10, and sunflower 10% (given with 20% potatoes) tasted best. Two % of alfalfa flour had a bad effect on taste. Sunflower flour could not be tasted even in amounts of 20%. Another series of expts. was made on 55 young mice distributed into 5 groups. Group 1 received bread prepd. from 2500 g. wheat, 600 g. potato mash, and 50 g. NaCl; group 2 2500 g. corn, 600 g. potato mash, and 50 g. NaCl; group 3 1250 g. wheat, 1250 g. corn, 600 g. potato mash, and 50 g. NaCl; group 4 1250 g. wheat, 750 g. corn, 800 g. sunflower, 600 g. potato mash, and 50 g. NaCl; group 5, serving as control, was given a standard diet. The mice were weighed twice weekly. They were at rest for 30 days and then were forced to run daily for 10-15 min. at a speed of 7.85 km./hr. in a revolving drum. The growth curves for groups 4 and 5 were identical. Group 1 showed somewhat lower figures; then came group 3 and group 2 was lowest (all mice died within 40 days). The addn. of extd. sunflower flour to bread flours in amts. of 10-20% is proposed to increase the biol. value of the proteins, especially in regions where pellagra used to occur or in periods when much corn flour is obliged to be used in bread. 16 references. István Finály

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

CLASSIFICATION

CLASSIFICATION

11E

PROCESSES AND PROPERTIES INDEX

The nutritional value of extracted sunflower meal. *Tihanyi Csaky* (Hungarian Biol. Research Inst., Tihany, Hungary). *Kisbuletgyi Kozlemenyek* 47 9, 40 65 (1947). Rtd. sunflower meal was used on 65 young mice. The compn. of meal was 30.0% protein, 6.4% ash, 430 mg. % Ca, 6.7 mg. % S, 1500 mg. % tyrosine, 200.0 mg. % tryptophan, 3.0 mg. % lysine, 4200 mg. % histidine, 27.0 mg. % arginine, 1500 mg. % proline, 41.5 mg. % nicotinamide. One group of mice served as control, others received ad libitum lucas prep. of (1) 2500 g. wheat flour, 600 g. potato puree, and 60 g. NaCl; (2) 2500 g. corn flour, 600 g. potato puree, and 60 g. NaCl; (3) 1250 g. wheat and 1250 g. corn flour, 600 g. potato puree, and 60 g. NaCl; (4) 1250 g. wheat and 750 g. corn flour, 600 g. sunflower meal, 600 g. potato puree, and 60 g. NaCl. For 30 days mice were kept quiet, then for 14 days daily for 10-15 mins. they were forced to run to observe their availability for work. Mice obtaining bread (2) did not grow and when forced to work, died rapidly. Groups obtaining breads (1) and (5) were much better. The group fed bread (4) showed almost the same development and ability for work as the control group. It is emphasized further that sunflower meal contains relatively more Ca than phytin phosphate and thus the assimilation of Ca is not impeded in such a manner as in bran-contg. breads. The disagreeable smell nor taste could be observed in breads prep. by 20% sunflower meal. The rachitic effect of pure wheat flour seems to be neutralized by addn. of sunflower meal.

István Fidy

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS: 11E

GROUPS: 11E







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Quantitative changes in the fluid content of the organs of rats in shock by freezing. Ariszki Gy. B. Kovách, and Tibamér Z. Csáky. *Arch. Biol. Hung.* 18, 360-7 (1948).— Male rats were fasted for 24 hrs. and then shock was induced under ether narcosis by dipping both hind extremities in liquid air. The rats died 3-8 hrs. after this treatment, and the fresh and dry wts. of organs were detd. Losses in the total wt. were 44% lungs, 20.4 liver, 14.2 gastro-intestinal tract, and 17.8 heart muscle. The wt. of the injured limbs increased by 28.8%. Wt. of brain, spleen, kidneys, and corpus remained unchanged. The dry matter of liver decreased by 36.7%, of heart by 12.8%. The loss in fluid content was 49.1% lungs, 40 liver, 20 gastro-intestinal tract, and 17.5 heart. No change was observed in the fluid content of brain and spleen. The fluid content of the frozen limbs was 27.4% of the original wt. and 43.4% of the original fluid content. 16 references. I. F.

