

*Valach, A.*

7

Country: Czechoslovakia

Academic Degree:

Affiliation: Tuberculosis Research Institute (Výzkumný ústav tuberkulózy), Prague. Director: docent Dr. R. [unclear] KRIVICKÁ.

Source: *Práce, Souhrn v Tuberkulóze a v Nemocích Plicních*, No 5, May 61, pp 360-375

Title: "The Significance of Examining the Pulmonary Circulation prior to the Surgical Treatment of Tuberculosis"

Co-authors: HALL, W. WEDECKY, J. BENDA, R. VALACH, A.

Note: Some affiliations are given for the five (including VALACH) co-authors, in the following order:

1. Institute for Postgraduate Medical Training (Ústav pro dokalování lékařů). Director: Dr. Jan KRIVICKÁ, Doctor of science.
2. State of Pathology (Státní patologie). Head: docent Dr. R. KRIVICKÁ.
3. Tuberculosis Research Institute (see above).
4. Institute for Circulatory Diseases (Ústav pro choroby oběhu krveho), Prague-Krc. Director: docent Dr. K. HALL.

Since the VALACH's mail address (Tuberculosis Research Institute), there is no clue to the location or affiliations of the individual co-authors.

KASALICKY, J.; VALACH, A.; DEJDAR, R.; KUBAT, K.; WIDIMSKY, J.; VYSLOUZIL, Z.;  
LUKES, M.

Cor pulmonale in tuberculosis. Rev. czech. med, 8 no.3:164-170 '62.

1. Institute for Cardiovascular Research, Prague-Krc Director: Doc.  
Dr. J. Brod, D.Sc. Tuberculosis Research Institute, Prague-Bulovka  
Director: Doc. Dr. R. Krivinka.  
(TUBERCULOSIS, PULMONARY) (PULMONARY HEART DISEASE)

SKLADAL, J.; KOCI, B.; MARECEK, B.; VALACH, A.

New elements in the functional examination of respiration.

Cas.lek.cesk. 103 no.12:314-316 20 Mr'64

1. Ustav klinické fyziologie a ustav patologické fyziologie  
lékarské fakulty hygienické KU v Praze; přednásta: prof.dr.  
J.Skladal.

\*

VALACH, J.

"The Shovel, A Hindrance to Progress", P. 2, (TECHNICKE NOVINY, Vol. 2,  
No. 10, May 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,  
Dec. 1954, Uncl.

VALACH, J.

"The Level of Our Railroad Should Be Raised", P. 2, (TAGEKONICEK, Vol. 2, No. 17, September 1954, Praha, Czech.)

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

VALACH, J.

Fall and the switchyards. p. 230

ZELEŇ ICAR (Ministerstvo dopravy) Vol. 6, No. 9, Sept. 1956

Praha, Czechoslovakia

SOURCE: East European List (EEL) Library of  
Congress, Vol. 6, No. 1, January 1957

VALACH, J.

Quadrimalleolar fracture of the shank. Rozhl. chir. 43  
no.11:747-749 N '64.

1. Chirurgické oddelenie nemocnice v Rim. Sobote, (vedúci  
MUDr. J. Valach).

VALACH J.

Porrchy vedomia ako akutne stavy. Disorders of consciousness  
Sloven lekar 12:7 July 50 p. 380-7.

1. Of the Surgical Department of the State Hospital in Rimavska  
Sobota (Head—Jan Valach, M. D.).  
CML Vol. 20, No. 2 Feb 1951



VALACH, J.

"It Is Necessary to Help New Men Develop", P. 2, (TECHNICKE NOVINY, Vol. 2, No. 8, Apr. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858420005-8

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858420005-8"

VALACH, J.

VALACH, J. Petrographic conditions in the Tuhar area. p.116.

No. 3, 1955, GEOLOGICKE PRACE; ZPAVY, BRATISLAVA, CZECHOSLOVAKIA.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10,

VALACH JAN

CZECHOSLOVAKIA/Cosmochemistry - Geochemistry. Hydrochemistry

D.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4167

Author : ~~Valach, Jan~~

Title : Contribution to the Study of Hydrothermal Transformation of Granitoidal Rocks of Krizianka Valley (Low Tatra)

Orig Pub : Geol. prace, Zpravy, 1956, No 5, 131-138

Abstract : In connection with disintegration of enclosing rocks about the epithermal antimonial mineralization a development took place of the processes of silication, sericitization & chloritization. Three zones of alteration in the proximity of ore occurrence are encountered:  
1) Quartz zone along the casing of ore vein. Primary quartz having undergone cataclasis and hydrothermal silica constitute 65-70% by volume of the entire rock; feldspars are converted to sericite, biotite is bleached to muscovite. 2) Epidote-sericite zone. Intensity of silication process decreases, epidote fulfills the

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**"APPROVED FOR RELEASE: 08/31/2001**

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APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858420005-8

VATACH, Jan

Seminar on bentonites. Geol. pruzkum 7 no. 1. 90 Ja '65.

VALACH, Jan, RNDr.

The possibility of existence of further mineralization in the neovolcanites of Central Slovakia. Geol pruzkum 7 no.3:68-70 Mr '65.

1. Geologicky prieskum National Enterprise, Zilina.



VALACH, JAN.

Projektovani a stavba letistnich ploch. (Vyd. 1. )

Praha, Czechoslovakia, Statni nakl. technika literatury, 1955. 219 p.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 10, Oct. 1959  
Uncl.

VALACH, Jan, Dr.

The fixed knee in traumatological care. Acta chir. orthop. traum. cech.  
24 no.4:296-299 July 57.

1. Chirurgické oddelenie nemocnice v Rimavskej Sobote, prednosta Dr.  
Jan Valach.

(KNEE, wounds & inj.  
management (Cz))

VALACH, Jan

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: MD

Affiliation: Director of the Department of Surgery, Okres Hospital (Chirurgické oddelení okresnej nemocnice), Rimavska Sobota.

Source: Prague, Prakticky Lekar, Vol 41, No 9, 1961, pp 391-395.

Data: "Panopelvic appendicitides."

48

Valach, M. Miroslav

303

Ontlova, Kvéta, and Valach, Miroslav. Statistical ana-  
lyser. Stroje na Zpracování Informací 2, 271-279 I - F/W  
MS(1954). (Czech. Russian and English summaries)

①

RW

S/271/63/000/001/030/047  
D413/D308

AUTHOR: Valach, Miroslav

TITLE: The synthesis of a ten-jointed mechanism for the construction of functions of three independent variables

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 1, 1963, 10, abstract 1B49 (Stroje na zpracov. inform., no. 2, 1954, 281-301 (Czech.: summaries in Rus. and Eng.))

TEXT: A theory of the network structure of functions is developed in the paper, and on this basis a graphical method is proposed for the synthesis of a 10-jointed mechanism with three degrees of freedom, designed for the graphical construction of functions of a rather general class, depending on three independent variables.  
[Abstracter's note: Complete translation]

Card 1/1

VALACH, M.

Marek, A. 3d National Conference on Calculating Machines. p. 112.  
SLABOPROUDY OBZOR, Praha, Vol. 16. no. 2, Feb. 1955.

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

VALACH, III

*Representation of Numbers and the Arithmetic Operations  
in Terms of Residues.*

\* Valach, Miroslav. Abbildung der Zahlen und der arithmetischen Operationen im Restklassensystem. Aktuelle Probleme der Rechentechnik. Bericht über das Internationale Mathematiker-Kolloquium. Dresden. 22. bis 27. November 1955, pp. 57-59. VEB Deutscher Verlag der Wissenschaften, Berlin, 1957.

The author remarks that the system of representation of positive integers by a vector of residues with respect to a set of relatively prime moduli would provide simpler algorithms for addition and multiplication than are obtained by the usual radix systems. The simplification emphasized is the non-mixing of components as against the need for "carrying" in the radix systems. The Chinese Remainder Theorem is invoked to show unicity of representation, and the direct sum and product algorithms assume that both addition and multiplication tables are mechanized for each modulus.

S. Gorn.

3  
1-F/W

Number Theory 16

CC  
1/1  
g

✓ Svoboda, Antonín; and Valach, Miroslav. Operational circuits. *Stroje na Zpracování Informací* 3 (1955), 247--295 (1956). (Czech. Russian and English summaries)

The basic theory of generalised calculus of digital computing circuits is discussed. In the design of hardware for multiplication, the product is usually formed as a sum of multiples of the multiplicand. Valach [*Stroje na Zpracování Informací* 3 (1955), 211-245; MR 19, 1035] has shown that circuits are possible which add and multiply in a single cycle. This work shows that not only multiplication, but also higher operations can be performed in one working cycle of a circuit by comparatively simple means, if they are represented in the physical world of hardware by algorithms derived from number theory.

Number systems are discussed. The number system of remainder classes represents whole numbers mod  $P$ , where  $P$  is a product of definitely chosen numbers. Transformation of number representations from the system of remainder classes to some polyadic system is discussed. Circuits are much simplified if a concept of an "estimate" is introduced to aid the transformation. The representation of numbers in the system of remainder classes and the representation of operations by the use of operational circuits are described. Relay circuits for the transformation of numbers by the method of "estimates" are described. V. Vard (University Park, Pa.)

3  
I-F/W  
I-CF(x)



Valach, Miroslav. Origin of the code and number system of remainder classes. *Stroje na Zpracování Informací* 3 (1955), 211-245 (1956). (Czech. Russian and English summaries) 11

For some applications, it is of great advantage to have digital computer circuits which operate in a single cycle, rather than serially, when evaluating arithmetical expressions. For multiplication, this requires a great increase in complexity of the hardware. However, substantial savings can be achieved by the use of a special code, called the *H*-code, for the representation of the digits in the decadic number system. Such a code is described. It enables single-cycle addition, multiplication and even the evaluation of entire algebraic expressions which involve only these operations. The code is related to the theory of remainder classes. 3

The paper describes a single-cycle binary adder, and a multiplier, as well as the properties which the *H*-code must possess, the relation between the *H*-code and the represented number, the number system of remainder classes and the evaluation of algebraic expressions in this system. S) 4

*V. Vand* (University Park, Pa.)

VALACH, K.

The translation of numbers from the system of remainder classes to a polyadic system by change of scale of period. p. 53. (STROJE NA ZPRACOVANI INFORMACI, Vol. 4, 1956, Praha, Czechoslovakia)

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

VALACH, M.

Numerical coordinatograph. p. 171.  
(STROJE NA ZPRACOVANI INFORMACI, Vol. 4, 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (IEAL) LC, Vol. 6, No. 12, Dec 1957. Incl.

VALACH, M.

Codes with changes in a single row.

p. 39 (STROJE NA ZPRACOVANI INFORMACI) Vol. 5, 1957,  
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,  
March 1958

VALACH, M.

Diaphragms for a digital coordinatograph.

p. 131 (STROJE ZPRACOVANI INFORMACI) Vol. 5, 1957,  
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EMAI) LC, Vol. 7, No. 3,  
March 1958

S/194/62/000/004/004/105  
D222/D309

AUTHOR: Valach, Miroslav

TITLE: Diaphragm system without covered series for digital  
coordinatographs (patent)

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,  
no. 4, 1962, abstract 4-1-89yu (Chekhosl. pat., kl.  
42m, 14, no. 94683, 15.03.60)

TEXT: A diaphragm system for digital coordinatographs is patented. The diaphragms are made of metal plate with perforated openings forming the pattern of the diaphragms. The diaphragms have two degrees of freedom and can be moved independently along the X and V axes in such a way that these displacements are proportional to the corresponding discrete voltages. The coding of the voltages controlling the displacements of the corresponding diaphragms can be done according to binary-decimal, or any other code system. A system of diaphragms without covered series is characterized by the fact that in each of their operating positions the openings of the indi-

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Diaphragm system without ...

S/194/62/000/004/004/105  
D222/D309

vidual diaphragms are positioned over the open sections of other diaphragms, so that the opening of any aperture is determined by the mutual position of all diaphragms in the system. The main advantages of the patented system of diaphragms are: 1) The possibility of lowering the accuracy of mechanical adjustment of diaphragms to the required position; 2) a small number of apertures. Sketches of a 100 x 100 type coordinatograph are given. 9 figures. [Abstracter's note: Complete translation.]

Card 2/2

8/271/63/000/002/022/030  
A060/A126

AUTHORS: Jura, Stanislav, Valach, Miroslav, Plešinger, Boris

TITLE: Start-stop device for recording tapes in computers

PERIODICAL: Referativnyy zhurnal, Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, no. 2, 1963, 47 - 48, abstract 2B247 P (Czech pat. cl. 42m, 32, 42g, 18, no. 100308, July 15, 1961)

TEXT: Patented is a start-stop mechanism for recording tapes in computers, teleprinters, etc, giving the possibility of reversing the direction of motion of the tape and designed for use in the input mechanism of the computer. The gist of the invention consists (see Figure) in the application of a pneumatic braking chamber 20 and two bearing rollers 30 and 40 revolving in opposite directions with pneumatic control. The chamber 20 and the rollers 30 and 40 are connected through a distributor 50 with the pneumatic system 55 (not shown in Figure). The recording tape 10 with magnetic recording is pressed both to the surface of the chamber 20, equipped with sucking holes (suckers) 21, and to the surface of the rollers 30 and 40, equipped with suckers 31 and 41; here, in order

Card 1/3



Start-stop device for recording tapes in computers

S/271/63/000/002/022/030  
A060/A126

to eliminate undesirable adhesion of the recording tape to a large portion of the circumferences of the rollers 30 and 40, part of their suckers is closed by protective segments 33 and 43. The connection of the chamber 20 and rollers 30 and 40 with the distributor 50 is realized by means of channels 22, 32, and 42, and pipes 25, 35, and 45, connected to the openings 53, 52, and 54 of the distributor. The operation of the system is controlled by the displacement of the valve 51. In the position indicated in the figure braking of the tape is realized, while the displacement of the slide 51 to the right or left causes the motion of the tape to one side or the other. The reading head (not shown in Figure) is located directly over the chamber 20 and, for the sake of improving the reading conditions, part of the suckers of the chamber is connected directly to the pneumatic system 50, thus ensuring a close adhesion of the tape to the upper surface of the chamber during the tape rewinding process. The mechanism is distinguished by its very high speed. There is one figure.

I. P.

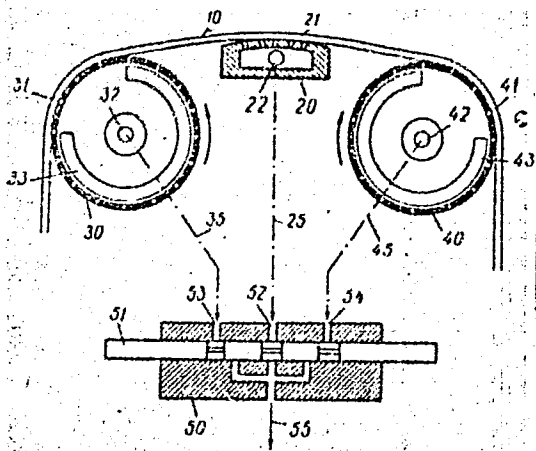
[Abstracter's note: Complete translation]

Card 2/3

Start-stop device for recording tapes in computers

S/271/63/000/002/022/030  
A060/A126

Figure.



Card 3/3

45743

S/194/62/000/012/007/101  
D201/D308

9.7910

AUTHORS: Jura, Stanislav, Valach, Miroslav and Plešinger, Boris

TITLE: A drive mechanism for a recording tape, particularly for use with a magnetic-tape memory arrangement

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 30-31, abstract 12-1-60 y (Czech. pat., cl. 42g, 10/01, no. 101003, Sep. 15, 1961)

TEXT: A patent for a recording tape feed mechanism is described. The mechanism is very rapid, has no dead zones and can reverse the direction of the tape motion. The invention is based on the use of a pneumatic start-stop mechanism for the control of the motion of the reeled tape. The mechanism has a control unit and a roller drive, the reading arrangement being placed above the braking chamber. The reels are driven individually and have locking mechanisms for the required reeling made of the tape. At both sides of the start-stop mechanism are placed spare cassettes with loose tape inside them. The cassettes are designed in the shape of pris-

Card 1/2

A drive mechanism ...

S/194/62/000/012/007/101  
D201/D308

matic containers with bottoms connected to weighing devices. The latter have a system of signalling which determines the weight of the tape in the corresponding receiving cassettes. Signal devices of both weighing arrangements are connected to each other and to the corresponding drive mechanisms through intermediate control units. This results in uniform winding of the tape on to the reel and provides for optimum working conditions of the start-stop mechanism. The necessary speed of operation of the whole device is obtained by using contactless components, such as photoelectric pickups for the control of position of cassette bottoms, fast electromagnetic clutches, etc. The mechanism uses blocking systems securing a predetermined sequence of operations of individual parts. 1 figure. [Abstracter's note: Complete translation.]

Card 2/2

VALACH, V.

S/271/65/000/001/037/047  
D413/D308

AUTHORS: Svoboda, Antonin and Valach, Miroslav

TITLE: An arithmetic unit for a digital computer

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 1, 1963, 41, abstract LB227 (Czech pat., cl. 42 m, 14, no. 99069, Mar. 15, 1961)

TEXT: The patent covers a version of arithmetic unit for a digital computer of series type. The unit is designed to perform operations on numbers represented in a binary-decimal system of numeration with a redundancy of 5, and consists of two registers and an accumulating counter. The operation of multiplication is carried out by parallel transfer of each tetrad through rectifiers controlled by the value of the corresponding digit of the multiplier, followed by summation of the results. 5 figures.  
[Abstracter's note: Complete translation]

Card 1/1

SVOBODA, Antonin; VALACH, Miroslav

Decimal arithmetic unit. Stroje na zprac inf 8:11-46 '62.

1. Research Institute of Mathematical Machines, Prague.

VALAKH, Miroslav [Valach, Miroslav]

Basic problems of the machine-vision. Stroje na zprac inf 8:  
47-78 '62.

1. Institut matematiceskikh mashin, Praga.

VALACH, M.

Possible formation of the "2d signaling system" in modern information processing machines. *Activ. nerv. sup.* 4 no.2:157-158 '62.

1. Vyzkumny ustav matematickych stroju, Praha.

(LANGUAGE) (AUTOMATIC DATA PROCESSING) (THINKING)



CZECHOSLOVAKIA

VALACH, M.; [Affiliation not given.]

"To the Article by J. Zeman: Information and the Brain."

Prague, Activitas Nervosa Superior, Vol 5, No 4, 1963, pp 435-437

Abstract: Difficulties in realization of the program suggested will be due mainly to the enormous task that would be faced by the programmer; he would need an enormously widespread knowledge, which he would transform into mathematical programming. Also it is probable that 2 computers of different design would produce differing answers to same problems. It is also probable that there are no two individuals whose brain processes are identical. A computerized solution will then lead to forced conformity of brain processes. No references.

1/1

MARIK, Jiri; VALACH, Miroslav

"Automatic electronic data processing and its importance  
for enterprise management" by Andreas Diemer. Reviewed  
by Jiri Marik and Miroslav Valach. Aplikace mat 8 no.1:72-73  
'63.

1948, 2.

1. Průběh aho lidu (1948-1950): živnostní a neživnostní struktura. Aktiv.  
nerv. síly. (Lidová. 1 no. 1948-1950) 12.

1. Psychický ustav matematických stroju v Praze.

CZECHOSLOVAKIA / Analytical Chemistry--Analysis of inorganic substances. *VALACH, R.*

E-c

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49258

Author : Herman, M.; Valach, R.

Inst : Not given

Title : The Photometric Determination of Phosphorus in Minerals

Orig Pub : Stavivo, 36, No 11, 437-438 (1958)

Abstract : The photometric determination of P in minerals in  $\text{HNO}_3$ ,  $\text{H}_2\text{SO}_4$ , and  $\text{HCl}_4$  is described. In the first case a sample containing 0.25 - 6 mg  $\text{P}_2\text{O}_5$  is evaporated twice to dryness in a Pt crucible with 4 ml HF and 4 ml conc  $\text{HNO}_3$ , respectively; the procedure is repeated two more times with conc  $\text{HNO}_3$  and the residue is dissolved in 3 ml (1 : 3)  $\text{HNO}_3$ . The solution obtained is diluted with

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E-25

CZECHOSLOVAKIA / Analytical Chemistry--Analysis of inorganic substances

E-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49258

water, filtered, 10 ml of V-Mo reagent solution (1.25 gm  $\text{NH}_4\text{VO}_3$  in 400 ml 1 : 1  $\text{HNO}_3$  is mixed with a solution with a solution containing 50 gms  $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4\text{H}_2\text{O}$  in 400 ml warm water, and the resulting solution is diluted with water to 1 liter) are added, the solution is diluted with water to 50 ml, left to stand at least 20 min (but less than 2 hrs), and analyzed photometrically in 1 cm cuvettes at 430  $\text{m}\mu$ . In the analysis of Ca-minerals 2 gms samples and 4 cm cuvettes are used. In the presence of over 1% Ti, the sample is fused with a five-fold excess of (3 : 1) mixture  $\text{Na}_2\text{O}_2$  and  $\text{Na}_2\text{CO}_3$ , the melt is treated with water, the solution obtained is diluted to 250 ml, filtered through a dry filter, an aliquot portion of the filtrate is evaporated twice with  $\text{HNO}_3$ , the  $\text{SiO}_2$  is removed, and the analysis is continued

Card 2/4

CZECHOSLOVAKIA / Analytical Chemistry--Analysis of inorganic substances.

2--

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49258

as described above. In the second case [ $H_2SO_4$  medium?] the sample is decomposed as in the first case, evaporated with 4 ml (1 : 3)  $H_2SO_4$  over a sand bath until the appearance of white fumes, about 2 ml water are added, the evaporation is continued almost to dryness, the residue is dissolved in water with heating, the solution is neutralized with NaOH (phenolphthalein endpoint), 2 ml  $H_2SO_4$  (1 : 4) are added with 10 ml V-mo reagent solution, the solution is diluted to 50 ml with water, and analyzed photometrically. In the third case the sample is evaporated to dryness with 2.5 ml conc  $HClO_4$ , the residue is dissolved in water, the solution is filtered, 5 ml  $NH_4VO_3$  solution (1.25 gm  $NH_4VO_3$  is dissolved in 400 ml  $HNO_3$ , 20 : 380 [omission?]) and diluted with

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E-26

CZECHOSLOVAKIA / Analytical Chemistry--Analysis of inorganic substances.

E-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49258

water to 500 ml) are added to the filtrate, the solution is diluted to 50 ml, and analyzed photometrically. A correction for Fe content must be made (obtained from control experiments with various amounts of  $\text{FeCl}_3$ ). Al does not interfere with the determination of P;  $\text{SiO}_2$  interferes only at concentrations exceeding 8.75 mg per 50 ml. Oxalates, tartrates, and citrates interfere generally.  $\text{Cr}_2\text{O}_7^{2-}$  must be removed by evaporation with  $\text{HClO}_4$  and by heating the residue with 1 gm crystalline NaCl. -- N. Turkevich

Card 4/4

VALACH V.

Karpisek J. and Valach V. — Int. odd. Statni Fak. nem. Praha III; I. Path. -anat. ust. Karlovy Univ. v Praze. *Cysticercus racemosus* mekkych plen mozkovych s klinickym obrazem apoplexie *Cysticercus racemosus* of the leptomeninges with a clinical picture of apoplexy Neurol. psychiat. casl. 1952, 15/5-6 (179-183)

A 71-year-old woman who had suffered for about 6 months from occasional headaches and paraphasia developed an apoplectic ictus with unconsciousness and subsequent right hemiplegia. She died 23 days later. At autopsy a large, living *Cysticercus racemosus* and a smaller dead one were located in the leptomeninges of the left insula. A small parasitic cyst was found in the region of the optic chiasma. The clinical picture of apoplexy was caused by pressure of the *Cysticercus* upon the cerebral peduncle, with subsequent vascular disturbances therein. The effect of toxic products from the dead parasite must also be taken into consideration. In some vessels there was a proliferation of the intima, but without obliteration. There was also an ependymitis granularis in the ventricles due to toxic and allergic influences.  
Hemer - Prague (VIII, 5)

S0: Excerpta Medica, Vol. 7, No. 2, Section VIII - February 1954



VALACH V., BEDNAR B., LIŠKA K., MAJEK R., PAZDERKA V. and VACEK R.

I. Path. -- Anat. Ust. KU, Praha. \*Správné, přehlédnuté a mylné diagnózy, jejich častost a porovnání s pitevními poznáním. Correct, missed and wrong diagnoses, their frequency and comparison with autopsy diagnoses ČAS LÉK. ČES. 1954, 93/14 (345-355) Tables 4  
In 1,000 autopsies from several clinics the clinical diagnosis had been correct in 31.8%, almost correct in 52%, inadequate in 12.6% and wrong in 3.6%. Border limits of inadequate and wrong diagnoses together were 7 and 31%. It is felt that if the upper limit is 10% it may be considered as an excellent result; on the other hand, 20% lower limit means poor diagnostic quality. Šikl - Prague

SO: Excerpta Medica  
Section V  
Vol. 7 No. 10

VALACH, Vlad., MUDr; WOLF, J., MUDr

Paramyloidosis in multiple plasmocytic myeloma. Cas. lek. cesk.  
93 no.42:1172-1178 15 Oct 54.

(AMYLOIDOSIS

paramyloidosis complicated with multiple plasmocytic  
myeloma)

(MYELOMA, PLASMA CELL, complications  
paramyloidosis)

BRACHFIELD, K., MUDr.; SVATY, J., MUDr.; VALACH, Vlad., MUDr.

Tuberous sclerosis in infants. Cesk. neur. 20 no.1:8-17  
Feb 57.

1. II. Detska klinika (prednosta prof. Dr. J. Houstek) a I.  
pathologicko-anatomicky ustav lekarske fakulty Karlovy university  
v Praze.

(TUBEROUS SCLEROSIS, in inf. & child (Cz))

EXCERPTA MEDICA Sec 5 Vol.11/6 Pathology June 58

1504. CRYSTALLIZATION OF PARAPROTEINS IN PLASMOCYTIC MYELOMA -  
Die Kristallisation von Paraproteinen beim plasmozytären Myelom - Val-  
ach V. I. Pathol.-Anat. Inst., Med. Fak., Karls-Univ., Prag - SCHWEIZ.  
Z. ALLG. PATH. BAKT. 1957, 20/4 (383-396) Tables 1 illus. 16  
Paraprotein crystals were found 10 times in a series of 45 autopsies of cases of  
plasmocytoma. In all cases the crystals were seen in the kidney, in one case in  
other organs as well. The crystals are as a rule formed during life, causing a  
reaction of the tissues. Where this reaction is absent, it is assumed that crystal-  
lization occurred shortly before death. A detailed description is given of a case  
(male aged 50) characterized by crystalline depots in the muscles and the skin  
with necrosis and ulceration in the latter, and of another (female aged 80) in which  
the paraproteinosis manifested itself by the entirely characteristic aspect of the  
renal papillae. Tverdy - Antwerp (V, 16)

KOPPL, Ladislav; BARTOS, Jiri; VALACH, Vladislav

Use of deep skin grafts; bacteriological & histological study of tissue in the replacement of the greater vessels. Sborn. lek. 59 no.7-8:249-254 July 58.

I. I. chirurgicka klinika fakulty vseobecneho lekarstvi KU v Praze, prednosta akademik prof. Dr Arnold Jirasek. I. pathologickoanatomicky ustav KU v Praze, vedouci doc. Dr. Blahoslav Bednar. As. Dr. L. K., I. chirurgicka klinika, U nemocnice 2, Praha 2.

(SKIN TRANSPLANTATION

bacteriol. & histol. comparison of preserv. of grafts in various types of solutions at low temperatures (Cz))

(COLD, eff.

freezing on bact. of preserved skin grafts (Cz))

EXCERPTA MEDICA Sec 18 Vol 4/2 Cardiovas. Dis. Feb 60

684. Evaluation of pulmonary hypertension in patent ductus arteriosus Part I. and VALACH V. 2nd Child. Clin., Fac. of Paed. and Hlava Hist. of Morbid Anat., Fac. of Gen. Med., Charles Univ., Prague *Ann. paediat. (Basel)* 1959, 193, 1 (14-33) Tables 7

In a series of 65 children with patent ductus arteriosus in whom a lung biopsy was carried out, irrespective of the presence or absence of pulmonary hypertension, slight to well-marked vascular changes corresponding to pulmonary hypertension were found in 50%. Certain conclusions were arrived at, viz.: A pressure of 50 mm. Hg cannot be regarded as the lower limit of pulmonary hypertension. The surgeon can assess the presence or absence of pulmonary hypertension in about 63% of the cases. Histological changes in the pulmonary blood vessels are most frequent in ducts 10-12 mm. wide and up to 10 mm. long. The presence of pulmonary hypertension can be determined from the clinical symptomatology. There is a correlation between the degree of pulmonary hypertension and structural changes in the pulmonary blood-vessels. (XVIII, 7\*)

BEDNAR, B.; PECHACEK, E.; BRAUN, A.; JIRASEK, A.; LISKA, K.; PAZDERKA, V.;  
STEJSKAL, J.; STEJSKALOVA, A.; VALACH, V.; VORREITH, M.

Neoplasms of the central nervous system. Acta univ. carol. [Med] 1960:  
1-102 '60.

(CENTRAL NERVOUS SYSTEM neoplasms)

NEUWIRTOVA, R.; CHYTIL, M.; VALEK, A.; DAUM, S.; VALACH, V.

3 cases of arsine poisoning with anuria treated by the artificial kidney. Pracovni. lek. 12 no.3:144-152 Ap '60.

1. II. interni klinika Karlovy university v Praze, prednosta prof. dr. Fr. Herles; Hlavni I. patologickoanatomicky ustav Karlovy university v Praze, prednosta doc. dr. B. Bednar.  
(ARSENICALS toxicol.)  
(ANURIA etiol.)  
(KIDNEY ARTIFICIAL)



VALACH, Vladislav

Chromatographic bilirubin separation. Cas.lek.cesk. 99 no.7/8:  
252-253 19 F '60.

1. Hlavuv I. patologicoanatomicki ustav fakulty vseobecneho  
lekarstvi KU v Praze, prednosta doc.dr. B. Bednar.  
(BILIRUBIN chem.)

VALACH, Vladislav

Late sequelae after thorotrast application. Cas.lek.ceak. 99 no.  
7/8:253-256 19 P '60.

1. Hlavuv I. patologickoanatomicky ustav fakulty vseobecneho  
lekarstvi KU v Praze, prednosta doc.dr. B. Bednar.  
(THORIUM toxicol.)

SANTOS, Jiri; JUNGER, Ladislav; LINHART, Otakar; VALACH, Vladislav

Replacement of large arteries in experiments on dogs. Acta univ. carol. [med.] 7 no.6:785-793 '61.

1. 1. chirurgicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta prof. MUDr. J. Pavrovsky. Hlavny I. patologickoanatomicky ustav fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta prof. MUDr. B. Bednar, Dr Sc.  
(ARTERIES surgery) (SKIN TRANSPLANTATION exper)

VALACH, Vl.

On the definition of precancerous conditions and preblastomas.  
Cas.lek.cesk 100 no.11:321-326 17 Mr '61.

1. Hlavuv I. patologicko-anatomicky ustav fakulty vseobecneho  
lekarstvi KU v Praze, prednosta prof. dr. Sc. MUDr. B. Bednar.

(NEOPLASMS)

VALACH, V.

NEORAL, L.

Czechoslovakia

3

Division of Pathological Anatomy OUNZ Olomouc -- Hospital  
and Polyclinic (Patologické anatomické oddělení OUNZ Olomouc  
-- nemocnice s poliklinikou ve Sternberku) Sternberg;  
Director: L. NEORAL, MD.

Brno, Vnitřní lékařství, No 10, Oct 62, pp 1097-1103.

"Giant Cell Granulomatous Myocarditis in Cases of Diabetes  
Mellitus."

Co-authors:

DUSEK, J. Institute of Pathological Anatomy FU (Patologické  
anatomické ústav FU v Olomouci) Olomouc; Director: V. VALACH,  
MD; TICHÝ, J., First Internal Clinic FU (I. vnitřní klinika  
FU v Olomouci), Olomouc.

3

CZECHOSLOVAKIA

FUKAL, J; OCHONSKY, P; VALACH, V.

1. Institute of Pathological Anatomy of the Medical Faculty MU (Ústav patologické anatomic lékařské fakulty MU), Olomouc; 2. Stomatological Clinic of the Medical Faculty MU (Stomatologická klinika lek. fakulty MU), Olomouc

Prague, Ceskoslovenska stomatologie, No 4, 1963, pp 250-254

"Benign Pigmented Tumor in a Child."

HOLUSA, R.; VALACH, V.; SERY, Z.; SERA, D.; FAJTA, M.; KAMENICEK, O.; ROCEK, V.;  
TALAS, M.

Pathology of breast dysplasia. Rozhl. chir. 43 no. 5:278-282  
My'64.

I. Patologickoanatomicky ustav (prednosta: doc. dr. V. Valach);  
II. chirurgicka klinika (prednosta: doc. dr. J. Burian); ustredni  
rentgenologicky ustav (prednosta: doc. dr. J. Doubravsky, CSc.)  
a gynekologicka klinika (prednosta: doc. dr. F. Gazarek, CSc.)  
lekarske fakulty PU [Palackeho university] v Olomouci.

VANA, D.; SLOSAREK, M.; KROPACEK, J.; UNGR, J.; KALUSOVA, J.; LICHTENBERG, J.;  
VALACH, V.

Detection of Mycobacterium tuberculosis in the respiratory tract and anesthesia equipment following lung resections in tuberculosis. Cas. lek. cek. 103 no.24:656-659 12 Je'64

1. Lecebna plnci tuberkulozy v Pasece u Sternberka (reditel: doc. dr. V. Raclavsky); Tuberkulozni oddeleni KUNZ [Krajsky ustav narodniho zdravi] v Praze-Veleslavin (prednosta: doc. dr. F. Polansky); Lecebna tuberkulozy na Plesi, Nova Ves pod Plesi (reditel: MUDr. J. Ungr); I. chirurgicka klinika fakulty vseobecneho lekarstvi KU [Karlovy university] v Praze (prednosta: prof. dr. J. Pavrovsky) a Ustav patologicke anatomie lekarske fakulty PU [Palackeho university] v Olomouci (prednosta: doc. dr. V. Valach).



HAUPTOVA, D.; SEIDLOVA, V.; SLAVICEK, J.; MINARIKOVA, E.; VALACH, V.

Wilson's disease without neurological symptoms. Vnitri lek. 11  
no.2:105-112 F '65

1. I. vnitri klinika Palackeho University v Olomouci (prednosta  
prof. MUDr. P. Luk<sup>š</sup>); Detska klinika Palackeho University v  
Olomouci (prednosta: prof. MUDr. J. Lhotak); Ustredni biochemicke  
laboratore FN v Olomouci (prednosta: MUDr. R. Podivinsky) a  
Ustav patologicke anatomie lekarske fakulty Palackeho University  
v Olomouci (prednosta doc. MUDr. V. Valach).

KUCERA, J.; VALACH, V.; PATEKOVÁ, V.

Paraganglioma of the urinary bladder in a 12-years-old girl.  
Rozhl. chir. 44 no.6:386-390 Je '65.

1. Urologická klinika (prednosta prof. dr. J. Kucera, DrSc),  
patologickoanatomický ústav (prednosta doc. dr. V. Valach) a  
dětská klinika (prednosta prof. dr. Lhotak, CSc.) lékařské  
fakulty Palackého University v Olomouci.

VOLEJNIK, J.; HOUSTEK, J.; VALACH, V.; BENDA, K.; VYHNALEK, J.

Familial mucoviscidosis-like illness with psychomotor retardation in 3 sisters. *Gesk. pediat.* 20 no.3:421-424 Mr '65

1. Aus der medizinischen Fakultät der Palacky-Universität, Olomouc; Kinderklinik; Pathologisch-anatomischen Institut; Roentgenologischem Institut und aus der II. Kinderklinik der Paediatrischen Fakultät der Karls-Universität in Prag.

Oncology

CZECHOSLOVAKIA

UDC 312.6:616.3-006.04

KOJECKY, Z.; JURYSEK, O.; VALACH, V.; 2nd Internal Clinic, Med -  
ical Faculty, Palacky University (II. Interni Klinika Lek. Fak.  
PU), Olomouc, Chief (Prednosta) Prof Dr Z. KOJECKY; Institute  
of Pathological Anatomy, Med. Fac. Palacky University (Ustav Pa-  
tologicke Anatomie Lek. Fak. PU), Olomouc, Chief (Prednosta)  
Docent Dr V. VALACH; Institute of Social Medicine, Med. Fac.  
Palacky University (Ustav Socialniho Lekarstvi Lek. Fak. PU),  
Olomouc, Chief (Prednosta) Docent Dr V. KUCEROVA.

"Malignant Tumors of the Digestive Tract Reported in the Olomouc  
Okres between 1871 and 1965."

Prague, Casopis Lekarů Ceskych, Vol 105, No 49-50, 9 Dec 66, pp  
1343 - 1348

Abstract /Authors' English summary modified 7: Among the deaths  
due to malignant tumors, those of the digestive tract accounted  
for 50.4% in the total period, and for 45.9% in the last 20 years.  
Among men highest mortality was in the age group 65-75, among  
women 65-69. Chemical composition of the soil and the content  
of the trace elements were not yet investigated. No difference  
was found between the inhabitants of the mountains and those of  
1/1 the lowlands. 3 Figures, 2 Tables.

VALACH, Zdenek, promovany veterinarni lekar

Diagnostic importance of peritoneal puncture in swine.  
Vet medicina 8 no.6:419-426 D '63.

1. Second Internal Clinic of the Faculty of Veterinary  
Medicine of the Higher School of Agriculture, Brno. Head  
of the Clinic: [doc. MVDr. CSc.] Tibor Lax.

VALACHOVIC, A.

"Sleep and its significance in the preservation of health." (p.736). PRIRODA A SPOLOCNOST. (Spolocnost pre sirenje politickych a vedeckych poznatkov na Slovensku) Martin. Vol. 2, No. 12, 1953.

SO: East European Accessions List, Vol 3, No. 8, Aug 1954.

VALACHOVIC, A.

Relation of the chemistry of the blood to the composition of the saliva from the parotid and maxillary glands. Cesk. fysiол. 9 no.1:62-63 Ja 60.

1. Fyziologicky ustav Lek. fak. UK v Bratislave.  
(BLOOD chem.)  
(SALIVA, chem.)

VALACHOVIC, A.; KLUCIK, I.

Effect of antimony trioxide on the myocardium in acute experimental conditions. Bratisl. Lek. Listy 42 no.2:691-700 '62.

1. Z Ustavu hygieny prace a chorob z povolania v Bratislave, riaditel'  
MUDr. I. Klucik.  
(HEART pharmacol) (ANTIMONY pharmacol)



VALACHOVIC, Anton, Dr. (Bratislava, Dukelska 18-20)

The effect of dinitrodiglycol on the efficiency of the dog's heart in an acute experiment. Prac. lek. 17 no.2:50-53 Mr'65.

1. Ustav hygieny prace a chorob z povolani v Bratislave (reditel: prof. dr. M. Nosal).

VALACHOVIC, Anton, MUDr., (Bratislava, Partizanska 2)

Effect of dinitroglycol on some mechanisms controlling circulation  
in dogs under acute experimental conditions. Prac. lek. 17 no.6:  
234-240 Ag '65.

1. Vyskumny ustav hygieny prace a chorob z povolania v Bratislave  
(riaditel prof.dr. M. Nosai).

VALACHOV, P.

"Contribution to the problem of water-soaked sand in the Modyř Kamen Coal Mines."  
Uhli, Praha, Vol 3, No 11, Nov. 1953, p. 310

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

VALACHOVIC, J.

We are organizing the training of sport parachutists. p. 94. (Kridla Vlasti, No. 3, Feb 1957, Praha, Czechoslovakia)

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

VALACIC, K.

Average arithmetic values for body weight and height of 7-year-old children in Vojvodina. Higijena 13 no.2:168-170 '61.

(BODY WEIGHT) (BODY HEIGHT)

35118  
S/058/62/000/002/040/05  
A001/A101

9.4179 (1051)

AUTHORS: Brazdžiūnas, P., Valacka, K., Šileika, A.

TITLE: On the origin of photo-emf in thin film Al-CdSe-Au systems in the infrared region of spectrum

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1962, 37-38, abstract 2E346 ("Uch. zap. Vil'nyussk. un-t. Matem., fiz.", 1960, v. 33, no. 9, 193-201, Lithuanian, Russian summary)

TEXT: Spectral distribution of photo-emf was investigated in thin film systems of Al-CdSe-Au at room and low (down to liquid nitrogen) temperatures. It was established that at room temperature photo-emf of these systems is detected already in the visible region of spectrum. The red edge lies at 800-1,000 mμ. In the low temperature region the spectral distribution of photo-emf changes essentially: the red edge of photo-emf is shifted to 2,500 mμ, and its sign is reversed. The photosensitivity of the systems in the infrared spectral region, as well as the sign reversal, indicate the existence of two mechanisms causing the origination of photo-emf. The results of investigations of the Au-CdSe-Al system and auxiliary systems Au-CdSe-Au and Al-CdSe-Al indicate

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On the origin of photo-emf ...

S/058/62/000/002/040/053  
A001/A101

that two barrier layers operate simultaneously in the Al-CdSe-Au system. The barrier layer in the region of the Al-electrode contact contributes to emergence of photo-emf at room temperature in the visible spectral region. The barrier layer in the Au-electrode zone is very weakly developed at room temperature and practically does not affect the spectral distribution of photo-emf. In the region of low temperatures, the main role in originating photo-emf is played by the developing barrier layer at Au-electrode. Current carriers are produced by infrared light in the thin transition CdSe layer with Au impurity. The last hypothesis was confirmed by an investigation of spectral distribution of internal photoeffect in CdSe layers with Au impurity prepared by Vekshinskiy's method. Spectral distribution of photocurrent in these specimens at low temperatures was displaced into infrared spectral region. At room temperature, the spectral distribution of photocurrent of such specimens does not essentially differ from the spectral distribution of pure CdSe photocurrent. A marked absorption of light was discovered in infrared region of spectrum (of the order of  $10^3 \text{ cm}^{-1}$ ) in CdSe specimens with Au impurity.

[Abstracter's note: Complete translation]

Card 2/2

COMES, V.; GALEA, V.; WEINLICH, Margareta; SUCIU, D.; VALACZKAI, Clara; VLAD, Felicia; DENES, I.

Necessity of vitamin C for workers exposed to mercury. Studii cerc biochimie 8 no.1:33-41 '65.

1. Section of Food Hygiene, Institute of Hygiene and Public Health, Cluj. Submitted June 28, 1964.



VALACZ, KAI, FR.

ROMANIA / General and Special Zoology. Insects.  
Insect and Mite Pests.

Abstr Jour: Ref Zhur-Biol, No 12, 1956, 54361.

Author : Arsenescu, M.; Fraktion, A.; Gruescu, A.; Stefan-  
escu, M.; Vaicakar, F.

Instit : Not given.  
Title : Aero-Chemical Control of Caterpillars of Lycantrix  
[Porthetria] dispar in the Forests of the Great  
Zone of the City of Bucharest in the Spring of 1956.

Orig Pub: Rev. padurilor, 1957, 71, No 4, 244-250, 215, 216,  
289, 290.

Abstract: Aerial treatment, chiefly with different DDT pre-  
parations, was employed against the 100% of  
caterpillars which were widespread in the woods  
and in the parks near Bucharest in 1956. The best  
results (98-100% destruction of the caterpillars

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Abstract: of the I-III stages) were obtained from greatly  
(a commercial mixture of 5% DDT with 0.41% γ-hexa-  
chlorocyclohexane) at the rate of 50 kg/ha. The  
same preparation was highly effective against the  
tent caterpillar (Malacosoma neustria) and the  
winter sawing-worm moth (Operophtera brumata L.)  
caterpillars not sufficiently effective against the  
caterpillars of the oak leaf-roller (Tortrix viri-  
dana) (Good) and 0.5% DDT emulsion. The effect of  
5% DDT dust and 0.5% DDT emulsion. The effect of  
1.5% γ-hexachlorocyclohexane at the rate of 50 kg/ha.  
was inadequate (32-68%). -- Authors' summary.

Card 2/2

BALOGH, Laszlo, dr.; VALADY, Anna, dr.; SZAMOSI, Jozsef, dr.

Cyanide poisoning in childhood. Orv. hetil. 104 no.37:1756-1757 15 S '63.

1. Heim Pal Gyermekkorhaz, Gyermekek-, Bel- es Toxikologiai Osztaly.

(POISONING) (CYANIDES)  
(EXCHANGE TRANSFUSION) (THIOSULFATES)  
(NITRITES)

HERCEGH, Miklos, dr.; VALADY, Anna, dr.

Comparing the development of normal and dysplastic hip joint  
in infancy. Orv. hetil. 105 no.37:1739-1741 13 S '64.

1. Fovarosi Tanacs Heim Pal Gyermekkorhaz, Orthopaediai Osztaly.

OBLIVAL'NYI, F.A.; KHUOLEY, V.I.; VALAGURA, I.A.

Conveyor for transporting and cutting plate glass. Stok. 1  
ker. 18 no.6:31-33 Je '61. (MIRA 14:7)  
(Plate glass) (Conveying machinery)

VALAITIS, Vaidotas; KRIVAS, Z., red.; SARKA, S., tekhn. red.

[What a turner should know] Kas ziotina tekintojui.  
Vilnius, Valstybine polotines ir mokslines literaturos  
leidykla, 1961. 142 p. (MIRA 15:2)  
(Turning) (Lathes)

JASINSKAITE, J.; KERVYTE, A.; MATKUTE, I.; MOLDERYTE, B.; HARVIDAITE, O.;  
PAZUSYTE, A.; PUODYTE, M.; RADZEVICIUTE, D.; REKSNYTE, B.; SEPETYTE, O.;  
TREBUTYTE, M.; VALAKEVICIUTE, I.; ZINKEVICIUTE, Z.

The incidence and piperazine therapy of ascariasis among students  
of the Vilnius Republican School of Medicine. Sveik. apsaug. no.12:  
41-43 '62.

1. Respublikines Vilniaus medicinos mokyklos mikrobiologijos burelis.  
Mokyklos direktorius -- R. Markauskas; burelio vadovas -- J. Rubikas).  
(PIPERAZINE) (ASCARIASIS)

24.3500

L182L  
Z/503/62/000/008/001/003  
I011/I211

AUTHOR: Valakh, M.

TITLE: Basic problems of the optic process in machines

SOURCE: Československá akademie věd Ústav matematických strojů. Stroje na zpracování informací no. 8, 1962, 47-78 (In Russian, Czech and English resumes) f

TEXT: The main parts of the machine optic organ are:  
(1) the sensing device; (2) the analyser; (3) the control unit;  
(4) the device for moving the sensing part; (5) a device for the external formation of the image. The sensing device transforms the optic signals into electric ones. For simplification purposes it is supposed that the sensing device operated in surroundings

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z/503/62/000/008/001/003

Basic problems of the....

with no half-shadows. The signals received by it are only light and darkness signals; 0 and 1. The field of 100 lines and 100 points per line is scanned once in a second. The signals are sent from the sensing device to the analyser. It analyses the image according to orders received by the control unit. Its main functions are: (1) the determination of the identity of two images; (2) the dismemberment of the identical or non-identical parts of two images; (3) the determination of a so-called boundary in an image; (4) the determination of a so-called newly-formed boundary. The analyser is connected by a two-way link with the computer. The functions of the moving device are: (1) rotating the optic axis of the sensing device so as to keep track of a moving object as long as possible; (2) setting the diaphragm; (3) mutual setting of the optic axes when a few sensing devices are used simultaneously on

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I011/I211

Basic problems .....

the same object; (4) controlling the image magnitude. The control unit receives orders from the computer and translates them into proper operation of the organ. The computer determines what is to be observed when it makes decisions on the basis of data received by observations and so on. The instructions given to the optic organ are: (1) what data are to be transmitted to the computer; (2) what course of action is to be followed by the organ as a result of changes in the observed field; (3) how the data are to be processed before transmitting them to the computer. The multiplicity  $A$  of points of the image determines the multiplicity  $B$  of boundaries between light and darkness. There are  $n^2 = 100^2$  points in  $A$  and  $2(n-1) \times 100 = 19800$  elements in  $B$ .

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I011/I211

Basic problems.....

$$a_{i,j} \cdot \bar{a}_{i,j+1} + \bar{a}_{i,j} \cdot a_{i,j+1} = b_{i,j-(j-1)}, \quad (4)$$

$$a_{i,j} \cdot a_{i+1,j} + \bar{a}_{i,j} \cdot a_{i+1,j} = b_{i-(i+1),j}$$

Two images, A<sub>1</sub> and A<sub>2</sub> are given. The multiplicity D is formed for comparing them:

$$a_{1,i,j} \cdot \bar{a}_{2,i,j} + \bar{a}_{1,i,j} \cdot a_{2,i,j} = d_{i,j} \quad (2)$$

All  $d_{ij} = 0$  : A<sub>2</sub> is identical to A<sub>1</sub>. Not all  $d_{ij} = 0$  : A<sub>2</sub> is not identical to A<sub>1</sub>. Another multiplicity, E, is formed by

$$\bar{b}_{1ij} \cdot b_{2ij} = e_{ij} \quad (5)$$

This relation can be used for: (1) determining the outlines of the object; (2) identifying a moving object; (3) suppressing the

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Z/503/62/000/008/001/003

Basic problems...

perception of the surroundings. The analyser block-diagram and an example of its operation (based on the above-mentioned relations) are given. An example of an algorithm for observation by machine is given, dealing with a moving object and an object that changes its form (as a result of rotation). There are 13 figures. ✓

ASSOCIATION: Institut matematicheskikh mashin (Institute of Mathematical Machines) Prague

SUBMITTED: March 6, 1961

Card 5/5

VALAKH, M.7a.

Study of the transmission of absorbing objects using double-beam  
spectrophotometers. Opt. i spektr. 18 no.5:915-917 My '65.

(MIRA 18:10)

L 31156-66 EWT(1)/EWT(m)/T/EWP(t)/EWA(h) IJP(c) JD/AT  
ACC NR: AP6006805 SOURCE CODE: UR/0181/66/008/002/0305/0310

AUTHOR: Lisitsa, M. P.; Valakh, M. Ya.; Terekhova, S. F.

63  
62  
8

ORG: Institute of Semiconductors AN UkrSSR, Kiev (Institut poluprovodnikov AN UkrSSR)

TITLE: Effect of degeneration and Coulomb interaction between carriers on edge absorption in CdS <sup>21.41.45</sup>

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 305-310

TOPIC TAGS: semiconductor carrier, cadmium sulfide, single crystal, indium, crystal absorption, Coulomb interaction

ABSTRACT: The position and shape of the absorption edge in heavily doped cadmium sulfide are studied. The measurements are made in polarized light at room temperature. The resultant data are used as a basis for a model explaining edge absorption in semiconductors with a high impurity concentration. The indium dopant was added to the CdS specimens during growth to produce large single crystals with a uniform impurity distribution. Measurements of the Hall effect showed that the carrier concentration at room temperature was close to the amount of impurity added to

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L 31156-66

ACC NR: AP6006805

the crystal. Absorption curves are given for CdS single crystals with various carrier concentrations. It is found that the natural absorption edge shifts toward lower energies with an increase in carrier concentration up to  $5 \cdot 10^{18} \text{ cm}^{-3}$ . A further increase in the number of free electrons results in the reverse effect: the minimum energy of the direct transition  $E_g$  begins to increase. This shift in the

absorption edge is attributed to two factors: the exchange interaction between charge carriers and the relationship between the Fermi energy and carrier concentration in a band. The resultant effect may be either a reduction in the threshold energy of an interband transition or an increase in this energy depending on which of these two mechanisms is predominant for a given carrier concentration. It is shown that the inversion point, i. e. the carrier concentration where the position of the absorption edge in a doped specimen is the same as in the pure metal, is determined by the parameters of the semiconductor. A reduction in the effective carrier mass and an increase in the dielectric constant of the material causes the inversion point to shift toward lower concentrations. As a result, the absorption edge for a semiconductor with a high band transconductance moves toward high energies at a concentration of the order of  $10^{17} \text{ cm}^{-3}$ . The authors are grateful to N. Ye. Korsunskaya for assistance in measuring the Hall effect. Orig. art. has: 3 figures, 11 formulas.

SUB CODE: 20/

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PRMOBRAZHENSKIY, N.A.; MAURIT, M.Ye.; BAZILEVSKAYA, G.I.;  
SMIRNOVA, G.V.; EL'MANOVICH, M.M.; VALAKHANOVICH, A.I.;  
PERSIYANOVA, E.

Synthesis of racemic stereoisomeric  $\alpha$ -alkylparaconic acids.  
Zhur.ob.khim. 30 no.7:2250-2256 J1 '60. (MIRA 13:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.  
(Paraconic acid)

VALAKH, M.T.

Device for hydraulic testing. Mashinostroitel' no.6:30  
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(Testing machines)

LISITSA, M.P. [Lysytsia, M.P.]; VALAKH, M.Ya.

Infrared absorption and the structure of CdS zones, Ukr.  
fiz. zhur. 8 no.10:1142-1149 0 '63. (MIRA 17:1)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

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TITLE: Determining spatial and surface inhomogeneities in the active substances and interferometer mirrors of lasers <sup>75</sup>

SOURCE: Respublikanskiy seminar po kvantovoy elektronike. Kvantovaya elektronika (Quantum electronics); trudy seminar. Kiev, Naukova dumka, 1966, 327-346

TOPIC TAGS: solid state laser, laser R and D, *LASER OPTIC MATERIAL*

ABSTRACT: Attempts to develop experimental outfits intended for mirror surface-quality control and for detection of optical inhomogeneities inside laser active rods are described; Soviet-made instruments and materials have been used. D. R. Herriott's method (J. Opt. Soc. Am., 1961, 51, 1142) is used for the mirror-surface testing; the multislit diaphragm is placed in the plane of the entrance slit of a UM-2 <sup>6</sup> monochromator; seven 100- $\mu$  wide slits are arranged at 500 $\mu$  from each other. The optical arrangement (see figure) includes: S - light source; K - condensor; N - multislit

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