

85024

Z/038/60/000/005/001/004

A201/A026

# Several Strength Problems of Nuclear Reactor Pressure Vessels

tion, we obtain the expression (1). If a reinforcement in the shape of a ring is inserted between the two cylinders (e.g., for pipe couplings) (Fig. 2), a similar expression can be obtained by a similar method. The tilt of the ring, which has a central cross-sectional moment of inertia in relation to the horizontal axis  $J$ , and which is loaded by external moments  $M_1$  and  $M_2$  is

$$\left( \frac{p r e}{2} - M_1 - M_2 \right) \frac{r^2}{E J}.$$

The tilt of the upper and lower cylinder parts, whose ends are loaded by internal moments  $M_1$  and  $M_2$ , respectively, is

$$\frac{M_1}{\beta_1 D_1} \text{ and } \frac{M_2}{\beta_2 D_2}.$$

Deformation conditions are derived from the equality of tilt angles of all three parts, namely

$$\left( \frac{p r e}{2} - M_1 - M_2 \right) \frac{r^2}{E J} = \frac{M_1}{\beta_1 D_1}; \quad \frac{M_2}{\beta_2 D_2} = \frac{M_1}{\beta_1 D_1}.$$

From these, the moment  $M_1$  and additional bending stress  $\sigma_{01}$  can be established. After adjustment the expression for this stress component is

Card 4/14

85021  
27038/60/000/005/001/004  
A201/A026

# Several Strength Problems of Nuclear Reactor Pressure Vessels

$$\sigma_{01} = \frac{3 p r e}{h_1^2} \frac{h_2^{\frac{5}{2}}}{h_1^{\frac{5}{2}} + h_2^{\frac{5}{2}}} \left[ 1 + \frac{12 (1 - \nu^2) J}{\sqrt{3 (1 - \nu^2)} r^{\frac{3}{2}} h_1^{\frac{5}{2}}} \right] \quad (2)$$

2) Stresses arising in the vessel wall in the vicinity of supports. Similar additional stresses are also effected by supports of reactor internals (Fig. 3). They act as hoops and cause bending stresses. Maximum value of their axial component is (Ref. 1, p. 205)

$$\sigma_0 = \frac{3 p r}{h \sqrt{3 (1 - \nu^2)}} \frac{1 - \frac{t h}{F}}{1 + \frac{2 h}{F \sqrt{\frac{3 (1 - \nu^2)}{r^2 h^2}}}} \quad (3)$$

where F is the area of the support's cross section. Additional stresses in cross sections 2/2 could be obtained from the above relations by interchanging the in-

Card 5/14

85024

Z/038/60/000/005/001/004

A201/A026

### Several Strength Problems of Nuclear Reactor Pressure Vessels

dices 1 and 2. If stresses arising in the vicinity of collar-reinforced ports are to be determined, their distribution is more reliably established by tensiometric measurements, particularly in large reactor vessels where the fabrication is limited by the maximum weight of ingots so that it is impossible to reinforce the ports in conformance with the code. A bending moment is also introduced into the vessel wall at the points where the vessel rests against supports. From the viewpoint of material stress it is advisable to distribute the effects of the reaction around the entire circumference of the vessel, so as to avoid formation of isolated forces and moments. In very large and heavy reactors operating at comparatively low internal overpressures the reaction effect on the overall wall stresses is greater than in reactors operating at overpressures of 60, 100, or more atm, since the total weight represents but a small percentage of the resultant axial force given by the overpressure. It has to be emphasized that stresses involved in all the above cases are the so-called shell stresses, which have a linearly variable pattern through the wall thickness and, for a given permissible stress, prevent an economical utilization of the mechanical properties of the vessel material. It is, therefore, necessary to avoid sources of this

Card 6/14

85024

Z/038/60/000/005/001/004

A201/A026

#### Several Strength Problems of Nuclear Reactor Pressure Vessels

stress by maintaining a uniform wall thickness. In addition to the shell stresses, narrow, local peaks due to the concentration of lines of force arise at sudden changes of the wall thickness and in the transition areas of the wall into ports. In determining their magnitude we have to depend on tensiometric and / or photoelastometric measurements. The problem of stress concentrations in the wall is of similar significance, since it has to be considered that irradiated material changes its mechanical properties after some time and the danger of brittle fractures arises. 3) Increase of stress in the transition area between the vessel and the lower head. Increased stresses can occur in the transition area between the vessel and the lower head. A large majority of reactors, existing or projected, therefore, use a hemispherical or elliptical lower head rather than a flat one. Greater fabrication difficulties required by the former are compensated for by their lower weight, smaller deformation due to internal overpressure, and a more uniform cooling and / or heating at shutdowns and startups. 4) Distribution of stresses in the vicinity of inlet and outlet pipe penetrations. The stress distribution in the penetration-weakened part of a reactor head presents a laborious calculation task. In a hemispherical head (Fig. 4), the transition stresses from the unweakened to the weakened part and to

Card 7/14

85024

Z/038/60/000/005/001/004

A201/A026

Several Strength Problems of Nuclear Reactor Pressure Vessels

the flange can be determined by a rough calculation. The mean value of the increase of the centerline radius in the free and weakened part of the sphere, due to the overpressure  $p$ , is larger by a value  $\frac{p}{E} \cdot \frac{r}{d}$  than that of the unweakened part. From the condition of continuity of the deformed area and its first derivative according to an independent variable  $\psi$ , the marginal forces  $x_{1,2}$  and moments  $M_{1,2}$  can be determined and on their basis also the mean values of additional stresses. A more accurate idea of the stress distribution in the weakened part of a hemispherical head can be obtained by comparing it to a system of meridian ribs of variable thicknesses, connected by parallel rings. This involves the solution of a system of linear algebraic equations that can be handled only by a computer. Results obtained can then be verified by tensiometric measurements which are already being conducted at several Czechoslovak research facilities. 5) Thermal stresses due to uneven distribution of heat across the wall thickness and the vessel-body length. In calculating the strength of reactor vessels, the problem of thermal stresses is of great significance. Temperature drops of increases across the wall thickness are due to the natural heat transfer from the reactor to the surroundings on the one hand, and to the radiation

X

Card 8/14

85024

Z/038/60/000/005/001/004  
A201/A026

# Several Strength Problems of Nuclear Reactor Pressure Vessels

heating on the other. If we introduce a new variable  $x$  (Fig. 5), the heat developing due to neutron flux and primary gamma radiation is expressed by the approximate relation

$$q = \sum_{i=1}^k a_i e^{-b_i x} \quad (4)$$

where  $a_i$  and  $b_i$  are physical constants. With the rotation symmetry preserved, the magnitude of thermal stresses can be determined by the solution of two one-dimensional problems. At given coefficients of heat transfer on the inner and outer surfaces of the vessel wall, the distribution of heat at a steady state is given by the solution of the differential equation  $\Delta^2 t = -\frac{q}{\lambda}$ . In thin-walled cylinders or spheres with an outside-to-inside diameter ratio of 1.2 or less, the Poisson equation has the simple form

$$\frac{\partial^2 t}{\partial x^2} + \frac{\partial^2 t}{\partial z^2} = -\frac{1}{\lambda} \sum_{i=1}^k a_i e^{-b_i x} \quad \text{or} \quad \frac{d^2 t}{dx^2} = -\frac{1}{\lambda} \sum_{i=1}^k a_i e^{-b_i x} \quad (5)$$

The tangential, radial and axial components of thermal stress in a cylinder are given by the relations (6) in which  $t$  is substituted by the solution of the

Card 9/14

85024

Z/038/60/000/005/001/004

A201/A026

Several Strength Problems of Nuclear Reactor Pressure Vessels

first of the above 2 equations

$$\sigma_r = -\frac{E\alpha}{(1-\nu)r^2} \int_a^r t(\rho)\rho d\rho + C_1 + \frac{C_2}{r^2}$$

$$\sigma_\theta = \frac{E\alpha}{(1-\nu)r^2} \int_a^r t(\rho)\rho d\rho - \frac{E\alpha t}{1-\nu} + C_1 + \frac{C_2}{r^2} \quad (6)$$

$$\sigma_z = -\frac{E\alpha t}{1-\nu} + 2\nu C_1 + E\varepsilon_z$$

Similar relations (7) are also valid for a sphere. Here  $t$  is substituted by the solution of the second equation (5)

$$\sigma_r = -\frac{E\alpha}{(1-\nu)r^3} \int_a^r t(\rho)\rho^2 d\rho + \frac{C_1 E}{1-2\nu} - \frac{2C_2 E}{(1+\nu)r^3}$$

$$\sigma_\theta = \frac{E\alpha}{(1-\nu)r^3} \int_a^r t(\rho)\rho^2 d\rho + \frac{C_1 E}{1-2\nu} + \frac{C_2 E}{(1+\nu)r^3} - \frac{\alpha E t}{1-\nu} \quad (7)$$

Card 10/14

85021

Z/035/60/000/005/001/004

A201/A026

# Several Strength Problems of Nuclear Reactor Pressure Vessels

where E is the elasticity modulus of the material,  $\nu$  the Poisson ratio of the material, a the inside radius of the wall,  $\alpha$  the thermal expansion coefficient, and  $C_1$  and  $C_2$  are constants derived from the condition of the zero radial stress at the internal and external wall surfaces, respectively. In the relations pertaining to a cylindrical vessel, there is a value  $\varepsilon_2$ . This is the specific elongation in axial direction and its magnitude is determined from the condition of the zero resultant of force along the cylinder axis. The above relations and their derivation can be found, e.g., in Timoshenko's work (Ref. 2, pp. 401, 411). A non-uniform heat distribution along the axis of a cylindrical vessel will also provoke a stress in the wall and its peripheral and axial components are given by relations (8) (Ref. 4, p. 204):

$$\sigma_z = -\frac{E \left(x - \frac{h}{2}\right)}{1 - \nu^2} \frac{d^2 u}{dz^2} - \frac{E \alpha}{1 - \nu} \left[ t(x, z) - \frac{1}{h} \int_0^h t(x, z) dx \right] \quad (8)$$

$$\sigma_\theta = \frac{E u}{r} - \frac{E \nu \left(x - \frac{h}{2}\right)}{1 - \nu^2} \frac{d^2 u}{dz^2} - \frac{E \alpha}{1 - \nu} \left[ t(x, z) - \frac{1}{h} \int_0^h t(x, z) dx \right]$$

Card 11/14



85024

Z/038/60/000/005/001/004

A201/A026

# Several Strength Problems of Nuclear Reactor Pressure Vessels

The function  $u(z)$  is the radial shift of the cylinder centerline and is obtained by the solution of the differential equation (9)

$$\frac{d^4 u}{dz^4} + 4\beta^4 u = \frac{E\alpha}{D r_{str}} \int_0^h t(x, z) dx \quad (9)$$

The constants of the general integral result from marginal conditions.  $\beta$  is the damping coefficient. Thermal stresses in a thick-walled cylinder at a rotationally asymmetric heat distribution have been solved by Melan and Parkus (Ref. 3). The heat in this case is a harmonic function of independent variables  $\varphi$  and  $r$ , as can be seen from the relation (10)

$$t = \sum_{n=1}^{\infty} [(a_n r^n + b_n r^{-n}) \cos n\varphi + (c_n r^n + d_n r^{-n}) \sin n\varphi]. \quad (10)$$

The constants  $a_n$  through  $d_n$  are obtained by a comparison to the Fourier series in which the functions of heat are distributed on the internal and external surfaces. The authors introduce into the calculation a so-called heat potential  $\Phi$ , analogous to the Airy function, whose derivatives are components of the thermal

Card 12/14

05024

Z: 038/60/000/005/001/004

A201/A026

# Several Strength Problems of Nuclear Reactor Pressure Vessels

stress, and which meets the Poisson equation  $\Delta\phi = \frac{1+\nu}{1-\nu} \alpha t$  (11). In the areas of wall-thickness changes (e.g., near pipe couplings) the heat and stress distribution is the function of three variables. An approximate calculation can be made for a limited range of cross sections only, namely for those, in which  $\frac{\partial t}{\partial \phi} = 0$  (Fig. 6) (Abstracter's note: Figure 6 is not shown in the article) For these cross sections the problem can be transformed into a planar one and solved, e.g., by the net-chart method. 6) Increase of thermal stresses at non-stationary operating conditions. Additional stresses can temporarily originate at a non-uniform heating or cooling of certain reactor parts. If, for instance, a reactor vessel has a flat head of uniform thickness, the ratio of thicknesses, at a weakening coefficient by the field of penetrations  $\psi$ , and at equal maximum stress, is

$$\frac{h_d}{h_v} = 1.114 \sqrt{\frac{\sigma t}{\psi p}} \quad (12)$$

where  $h_d$  is the head thickness,  $h_v$  the thickness of the vessel wall, and  $p$  the internal overpressure. It can be seen that at a reactor shutdown the head will cool off much more slowly than the vessel walls and due to its great radial ri-

Card 13/14

850 24

Z/038/60/000/005/001/004

A201/A026

Several Strength Problems of Nuclear Reactor Pressure Vessels

gidity it will create considerable additional stresses in the vessel walls. It is, therefore, necessary to place a compensating insert between the head and the vessel, or to ensure that at startups and / or shutdowns a certain maximum temperature difference is not exceeded. (Edited by B. Stočes and J. Kuchta.) There are 5 figures and 4 references: 1 Czech, 1 Austrian and 2 Soviet.

ASSOCIATION: Státní výzkumný ústav tepelné techniky (State Research Institute of Thermal Engineering) in Prague

Card 14/14

DVORAK, J.

~~DVORZHAK, Ya.~~

Use of a matrix calculation in determining the rigidity of steam pipelines. Inzh.-fiz.zhur. no.6:126-137 Je '60. (MIRA 13:7)

1. Gosudarstvennyy issledovatel'skiy institut teplotekhniki, g. Praga.

(Steampipes)

DVORAK, J., inz., Sc.O.

Compensation length and axial displacement of buried pipelines.  
Strojirenstvi 11 no.12:903-905 D '61.

1. Statni vyzkumny ustav tepelne techniky, Praha.

DVORAK, JAN (Prague)

"Bending of perforated plates".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964.

DVORAK, J.

Stress concentration in a perforated plate. Bul Ac Pol tech 12 no.4:  
237-244 '64.

1. National Research Institute of Heat Engineering, Prague.  
Presented by W. Olszak.

DVORAK, Jan, inz. CSc.

Bending of a circular orthotropic loosely supported plate.

Stroj. čas 15 no.2s160-1/1 '64

1. Státní výzkumný ústav tepelné techniky, Praha.



**"APPROVED FOR RELEASE: 08/25/2000**

**CIA-RDP86-00513R000411620018-8**

**APPROVED FOR RELEASE: 08/25/2000**

**CIA-RDP86-00513R000411620018-8"**

DVORAK, J.; PAJER, J.

"Temporary double refraction in macromolecular substances." In German.

P. 379. Collection of Czechoslovak Chemical Communications. Sbornik Czechoslovatskikh Khimicheskikh Rabot. (Praha, Czechoslovakia.) Vol. 22, no. 2, Apr. 1957.

SO: Monthly Index of East European Accession (REAI) LC, Vol. 7, No. 5, May 1958

DVORAK, JAN.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and H-16  
Their Application - Industrial Synthesis of Dyestuffs.

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8960

Author : Arient Josef, Dvorak Jan

Inst : -

Title : Triphenylmethane Dyes. I. Condensation of N-Monomethyl-  
Cumidine with Formaldehyde, Michler's Ketone and o-Chlo-  
robenzaldehyde.

Orig Pub : Chem. listy, 1956, 50, No 12, 1974-1978; Sb. chekhosl.  
khim. rabot, 1957, 22, No 2, 468-472

Abstract : By dropwise addition of 9.3 g  $H_2SO_4$ , diluted with 4.5 ml.  
water, and 10.7 g o-chlorobenzaldehyde, to 22.4 g N-me-  
thyl-o-cumidine (I) in a  $CO_2$  atmosphere, heating of the  
mixture for 24 hours, pouring into 200 ml water and ma-  
king alkaline with  $NH_4OH$ , were obtained 30.2 g of 4,4'-  
-bis-methylamino-3,3'-diisopropyl-2"-chloro-triphenyl-  
methane (II), MP 133.5-134° (from alcohol). By oxidation

Card 1/2

*Vysoká ustav org. syntéza. Pardubice*

DVORAK, JAN

Distr: hE2c(J)

7

Preparation of benzyl methacrylate. Jan Dvořák  
Výzkumný ústav makromolekulární chemie, Brno, Czech.  
Chem. průmysl 8, 287-91 (1958). Three syntheses of  
 $\text{CH}_2=\text{C}(\text{Me})\text{CO}_2\text{CH}_2\text{Ph}$  (I) were investigated: (1)  $\text{CH}_2=\text{C}(\text{Me})\text{CO}_2\text{H}$  was esterified with  $\text{PhCH}_2\text{OH}$ , with  $\text{C}_2\text{H}_5$  for the  
azeotropic distn. of the water formed.  $\text{H}_2\text{SO}_4$  catalysis  
caused ether formation which was minimized when sulfo-  
salicylic acid (2-3 wt.-% of the  $\text{CH}_2=\text{C}(\text{Me})\text{CO}_2\text{H}$ ) was sub-  
stituted (yield 80%). (2) In the ester interchange of  
 $\text{CH}_2=\text{C}(\text{Me})\text{CO}_2\text{Me}$  (II) with  $\text{PhCH}_2\text{OH}$ , acid catalysts led to  
polymerization; with Na or K benzyl alcoholate,  $\text{PhCH}_2\text{OH}$   
conversions up to 90% were obtained. An 80% excess of  
I was used and the MeOH removed with I ( $b_{\text{m}} 61.2^\circ$ ,  
 $b_{\text{m}} 42.1^\circ$ ). The catechol inhibitor has to be more than  
equiv. to the basic catalyst. (3)  $\text{CH}_2=\text{C}(\text{Me})\text{CO}_2\text{H}$  (1  
mole) was treated with 1 mole NaOH in 20% aq. soln.,  
heated to  $90^\circ$ , and treated with 1 mole  $\text{PhCH}_2\text{Cl}$  in the  
presence of a tertiary amine. With 18 g.  $\text{NBu}_3$  96% of the  
 $\text{PhCH}_2\text{Cl}$  was consumed in 2.5 hrs., yielding 60% I,  $d_{20}$   
1.040,  $n_D^{20}$  1.5120, specific heat 0.366 cal./g. at  $23.4^\circ$ , vis-  
cosity 0.028 poises at  $20^\circ$ ,  $b_{\text{m}} 126^\circ$ ,  $b_{\text{m}} 158^\circ$ ,  $b_{\text{m}} 236^\circ$ .  
Polymerization at  $76.8^\circ$  gives  $\Delta H = 13.4$  kcal./mole and a  
vol. contraction of 14%.  
H. Morawetz

3  
2 may  
1

SB  
1

94

COUNTRY : Czechoslovakia H-29  
CATEGORY :  
ABS. JOUR. : RZKhim., No. 1959, No. 73179  
AUTHOR : Dvorak, J.; Zdrasil, J.  
INST. :  
TITLE : Determination of the Degree of Substitution  
of N-Methoxymethyl-Polycaprolactam by the  
Melting Point  
ORIG. PUB. : Chem. prumysl, 1958, 8, No 8, 446-447  
ABSTRACT : It was found that it is possible to determine  
the degree of substitution of polycaprolactam (I) by the  
N-alkoxymethyl groups, from its melting point. By heating  
a 15% aqueous-alcohol solution of substituted I for 30  
minutes at 50-60°, and adding NaOH to a pH of 9, the  
methylol groups are split off, while retaining the alkoxy-  
methyl groups. After cooling of the solution, I is isolated.  
Products with a degree of substitution exceeding 30% are  
precipitated from the solution with water, to the resulting  
mixture is added acetone (II) until complete dissolution is  
effected and thereafter more I [sic -- II ?] is added until  
N-substituted I is precipitated in the form of small  
CARD: 1/2

109

CZECHOSLOVAKIA / Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77614.

Abstract:  $C_6H_6$  from petroleum ether. VII can also be prepared in 92% yields with the oxidation of VI by a procedure similar to that used in the preparation of V. The diazotization of 0.03 mol para-leucoaniline (VIII) in the presence of KBr, followed by reaction with 0.1 mol III and treatment similar to that used in the case of IV, give 96% yields of  $(C_6H_5)_2CHN = NR''-p$  (purification as in the case of VII) which is oxidized by a procedure similar to that used with V to give 99% yields of  $CH(C_6H_4R'-p)_3$  (IX), mp 206-208° (after drying for several days at 110° in vacuo); following precipitation from benzene solution by the addition of petroleum ether, IX is found to contain

Card 4/9

DVORAK, J.

1  
Reaction of hydrogen peroxide with formic acid or acetic acid. Jan Dvořák (Výzk. ústav makromol. chem., Brno, Czech. J. Chem. průmysl 9, 524-5 (1959)).—Formic acid or AcOH (1 mole 100%) was oxidized with 1 mole 50%  $H_2O_2$  in the presence of 1 wt. %  $H_2SO_4$  at 15–50°. Besides oxidation of AcOH and  $HCO_2H$  the concn. of  $H_2O_2$  changed 15–75% and concn. of  $H_2SO_4$  1–9%. Further series of measurements were done with ratios 0.15, 0.25, 0.5, 0.75.

and 1 mole 1/mole 60%  $H_2O_2$  at 30°. The content of peracid in relation to time of reaction was followed in all cases. The amt. of peracid formed depended on the concn. of  $H_2O_2$  and on the wt. ratio of  $H_2O_2$  and acid. The amts. of  $H_2SO_4$  and temp. were crit. only for the rate of formation and decompn. of peracid. P. Čadež

3  
299 (1/3)  
4E2C (y)

29

S/081/62/000/023/104/120  
B101/B186

AUTHORS: Dvořák, Jan, Müller, Jaroslav, Zlámál, Zdeněk

TITLE: Method of producing high-molecular weight polyacetaldehyde

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 719, abstract  
23P355 (Czechosl. pat: 100322, July 15, 1961)

TEXT: Rubberlike high-molecular weight polyacetaldehyde of linear structure, soluble in organic solvents, is obtained by polymerization (PM) of the acetaldehyde (I) at  $-100$  to  $-30^{\circ}\text{C}$  in the presence of  $\text{H}_2\text{SO}_4$ ,  $\text{HCl}$ ,  $\text{H}_3\text{PO}_4$ ,  $\text{CCl}_3\text{COOH}$ ,  $\text{H}_2\text{C}_2\text{O}_4$ ,  $\text{NaHSO}_4$ ,  $\text{KHSO}_4$ ,  $(\text{NH}_4)_2\text{S}_2\text{O}_8$ . The initial I must be carefully purified. Basic substances inhibit the reaction. Example:  $10^{-6}$  -  $10^{-5}\%$   $\text{H}_2\text{SO}_4$  is added to I cooled to  $-78^{\circ}\text{C}$ . PM proceeds almost instantly. With addition of  $0.001\%$   $\text{H}_3\text{PO}_4$ ,  $0.01$  -  $0.1\%$   $\text{CCl}_3\text{COOH}$ , or  $0.01\%$   $\text{KHSO}_4$ , PM takes some hours. [Abstracter's note: Complete translation.]

Card 1/1



DVORAK, Jan

Thermoplastic polyether Penton. Chem prun 12<sup>1</sup> no.7:388-389  
Jl '62.

1. Vyzkumny ustav makromolekularni chemie, Brno.

DVORAK, Jan

Chlorination of pentagerythritol tetraacetate. Chem prum  
12 no.10:535-538 0 '62.

1. Vyzkumny ustav makromolekularni chemie, Brno.

ACC NR: AP6017819

SOURCE CODE: CZ/0009/65/000/012/0732/0735

AUTHOR: Fic, Vojtech; Dvorak, Jan

ORG: Research Institute of Macromolecular Chemistry, Brno (Vyzkumny ustav makromolekularni chemie)

TITLE: Organo-aluminium compounds - I (Vapor pressure) of triethyl aluminium and diethyl aluminium chloride

SOURCE: Chemicky prumysl, no. 12, 1965, 732-735

TOPIC TAGS: vapor pressure, vaporization, measurement, measuring instrument, ALUMINUM CHLORIDE, ORGANOALUMINUM COMPOUND

ABSTRACT: The purpose of this investigation was to measure the vapor pressure of triethyl aluminium and of diethyl aluminium chloride using such experimental technique as would limit to a minimum the possibility of contamination of the substances to be measured. Whereas these compounds are industrially important, there is little published data on their vapor pressure. The dynamic method was used to measure the vapor pressure of these two substances by determining the boiling point in a vacuum distillation apparatus. An equation for vapor pressure was derived from the measured values which were used to compute the normal boiling point, the molar heat of evaporation,

UDC: 547.256

Card 1/2

L 43732-66

ACC NR: AP6017819

the trouton constants and approximate values of the critical constants. On the whole, good agreement was found between the published results and the authors' results.. Statistical methods of determining vapor pressures of triethyl aluminium give in the low temperature region somewhat lower values than the dynamic method. Orig. art. has: 1 figure, 4 tables and 2 formulas..

SUB CODE: 07, 20/ SUBM DATE: 03Aug65/ ORIG REF: 004/ SOV REF: 004/ QTH REF: 022

Card 2/2

JS

DVCRAK, JAH.

"Organization of the maintenance of machinery in open pits in the USSR."

p. 393 (Rudy) Vol. 5, no. 11, Nov. 1957  
Prague, Czechoslovakia

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

DVORAK, JAN.

Pipelines and their development from the point of view of their utilization in mining. p. 391

POZARNI TECHNIKA. Praha, Czechoslovakia, Vol. 6, No. 11, Nov. 1958.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 8, August 1959  
Uncl.

DVORAK, Jan, inz.

"Mechanization of Auxiliary Work in Open Mines" by Bohuslav Korb.  
Reviewed by Jan Dvorak. Rudy 9 no.11:389 N '61.

(Mining engineering) (Korb, Bohuslav)

DVORAK, Jan, inz.

Development of mine surveying instruments. Uhli 4 no.3:107-109  
Mr '62.

1. Ustav pro vyzkum rud, Praha.



DVORAK, Jan, inz.

Tube level for measurement of vertical rock movements in boreholes.  
Rudy 11 no.6:199-201 Je '63.

1. Ustav pro vyzkum rud, Praha.

DVORAK, JAH HOLY, M.

Research on water erosion in the German Democratic Republic. p. 330.

VODNI HOSPODARSTVI. Praha, Czechoslovakia. No. 8, August 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11,  
November 1959.

Uncl.

DVORAK, J. / CHALUPNIK, K.

The pH measurement in neutralization waste-treatment plants. p. 561.

VODNI HOSPODARSTVI. (Ministerstvo energetiky a vodního hospodářství a  
Vedecká technická společnost pro vodní hospodářství) Praha, Czechoslovakia,  
No. 12, Dec. 1959.

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

U ncl.

DVORAK, J. J. inz.

Corrosion and protection of water station equipment. Vodni hosp  
13 no. 4:128 '63.

DVORAK, Jan, inz., dr., C.Sc.

Optimum intensity of the spray irrigation. Vodni hosp  
13 no.2:70-72 '63.

1. Vyzkumny ustav vodohospodarsky, Praha.

DVORAK, Jan. inz.; HOFFMAN, K.

Development of the Czechoslovak electrification system by making use of further hydraulic power resources. Vodni hosp 13 no.6: 227-228 '63.

1. Hydroprojekt, Praha (for Dvorak). 2. Ustredni sprava energetiky (for Hoffman).

CZECHOSLOVAKIA

DVORAK, J., FILSAKOVA, B: Institute for Aeronautical Medicine  
(Ustav Leteckeho Zdravotnictvi), Prague.

"Evaluation of Work Output in Breathing Judged by Changes in  
Chest Circumference."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 74

Abstract: The authors describe a recorder which they designed.  
The recorded curve is influenced by changes in breathing caused  
by variable loading, and is indicative of changes in work  
output. 1 Figure, no references. Submitted at the "16 Days of  
Physiology" at Kosice, 29 Sep 65.

ONDRACEK, Jaroslav; DVORAK, Jaroslav; PRIX, Rudolf

On the problem of generalized candidiasis. Cas. lek. cesk. 99  
no. 25:781-784 17 Je '60.

1. Klinika nemoci infekcnich, prednosta doc. MUDr. Jaroslav Ondracek  
a katedra mikrobiologie a epidemiologie Lekarske fakulty KU v Hradci,  
Kralove, prednosta doc. MUDr. Karle Makovicka.  
(MONILIASIS case reports)



DVORZHAK, Yaroslav [Dvorak, Jaroslav] (Praga); NECHAS, Indrzhikh [Necas, Jindrich] (Praga)

Determining the stress in a rectangular wedge by superposing the  
semiplane stress conditions. Rev math pures 7 no.3:467-480 '62.

SULC, Josef, inz., dr.; DUSANEK, Jan; DVORAK, Jaroslav; SIMONOVSKY,  
Miroslav, inz.

Measurement in the dairying industry. Prum potravin:Suppl.:  
14 no.5:1-24 My '63.

1. Zavodni pobočka Československé vědecko-technické společnosti  
Sdružení mlékáren, Praha (for Sulc). 2. Zavodní pobočka  
Československé vědecko-technické společnosti Úřadu pro normalizaci  
a měření, Praha (for Dusanek, Dvorak and Simonovsky).

HANUS, Bohuslav, promovany ekonom, ScC.; DVORAK, Jaroslav, inz.

Some problems of determining the economic effectiveness of continuous transportation. Doprava no.3;223-228 '63.

HANUS, Bohuslav, promovany ekonom, CSc.; DVORAK, Jaroslav, inz.

Problems of determining the economic effectiveness of ropeways.  
Doprava no. 2:89-95 164.

HERAL, Jan; DVORAK, Jaroslav

Protection devices reducing the consequences of short-circuit  
outages in high-voltage networks. Energetika Cz 14 no.6:268-274  
Je '64

1. Research Institute of Power Engineering, Ceske Budejovice.

OTCENASEK, Milos, promovany biolog CSc.; DYORAK, Jaroslav, MUDr. CSc.;  
KOMAREK, Jan, promovany veterinarni lekar

Mycological diagnosis of trichophytosis caused by Trichophyton  
verru cosum Bodin 1902. Veter medicina 9 no 5:391-398 0 '64.

1. Institute of Parasitology of the Czechoslovak Academy of  
Sciences, Prague, Director [Corresponding member of the  
Czechoslovak Academy of Sciences, DrSc.] B. Rosicky, and the  
Station of Laboratory and Clinical Diagnostics of the Central  
State Veterinary Institute, Pardubice, Director of the Station  
[MVDr.] M. Rysanek. Submitted February 12, 1964.

DVORAK, Jaroslav

The facial and lithological development of the Devonian and Carboniferous in the eastern Sudeten and in Moravia. Kwartalnik geol 3 no.1:30-43 '59. (EEAI 9:8)

1. Ustredni Ustav Geologicky, Brno  
(Sudeten) (Czechoslovakia--Geology)

DVORAK, Jaroslav; PRIKRYL, Ivan; SOBOTA, Josef, Technicka spoluprace M.  
Patočková and L. Pekarova.

Isolation of dermatophyta from soil. Cesk. epidem. mikrob. imun.  
8 no.4:259-262 July 59

1. Ustredni mikrobiologicka laborator klinicka nemocnice v Hradci  
Kralove.

(SOIL, microbiol.)

(FUNGI)



DVORAK, Jaroslav

On the problem of the anastomosis of heterogenic hyphae of dermatophytes in vitro. Sborn. ved. prac. lek. fak. Karlov univ. (Hrad Kra) (Suppl.) 4, no.4:327-338 '61.

1. Zast. vedouci katedry mikrobiologie.  
(FUNGI)

DVORAK, Jaroslav; MUSIL, Rudolf; SEKANINA, Josef; ZUREK, Vladimir;  
TRÄCHTULEC, Jan; VOĐA, Oldrich; CHLUPAC, Ivo; HOMOLA, Vladimir;  
PESEK, Jiri; ZAK, Lubor; GASPARIK, Jan

Activities of the branches of the Czechoslovak Society for  
Mineralogy and Geology in Brno, Most, Olomouc, Ostrava, Praha  
and Zilina. Cas min geol 7 no.3:385-392 '62.

SKACEL, Jaroslav; MAREK, Miloslav; MIKUS, Miloslav; KNEZ, Jaroslav;  
PAUK, Tomas; BARTAS, Frantisek; OREL, Petr; VYBIRAL, Josef;  
BARTH, Vojtech; KNETTING, Petr; FOJT, Bohuslav; DVORAK, Jaroslav;  
KOCIAN, Jan.

The 2nd Regional Geological Conference in Opava. Prir cas  
slezsky 23 no.1:133-143 '62.

DVORAK, Jaroslav; MORKOVSKY, Milan

Preliminary report on the Paleozoic at the Slavkov 2 borehole in  
the frontal Carpathian Plain. Cas min geol 8 no.3:282-283 JI '63.

DVORAK, Jaroslav

Determining the age of dislocation movements between the Moldanubicum and Moravicum. Vest Ust geol 38 no.1:41-42 Ja '63.

1. Ustredni ustav geologicky, Brno.

DVORAK, Jaroslav

Biostratigraphy of the Lower Carboniferous of the southern part  
of the Dražanská vrchovina. Vest Ust geol 38 no.3:161-170 My '63.

1. Ústřední ústav geologický, Brno.

POKORNY, Miloslav; WEISS, Jaroslav; DVOŘÁK, Jaroslav; DLABAC, Mikulas; PESL, Vaclav; PELISEK, Josef

Fourteenth Congress of the Czechoslovak Society of Mineralogy and Geology in Brno, 1963. Cas min geol 9 no.2:251-256 '64.

DVORAK, Jaroslav; FREYER, Gunter; URBANEK, Jan

New information on the Paleozoic in the surroundings of Horni  
Benesov in Dolni Jesenik Mountains. Vest ust geol 39 no.5:331-339  
S '64.

1. Ceskoslovenske naftove doly, Brno; Geologicky pruzkum National  
Enterprise, Rymarov (for Dvorak and Urbanek). 2. Geological Service  
Freiberg, German Democratic Republic (for Freyer).



DVORAK, Jaroslav, inz. CSc.; KAFKA, Vratislav, inz. CSc.

Second All Union Congress on Theoretical and Applied  
Mechanics. Stav cas 12 no.9:581-583 '64.

1. Institute of Theoretical and Applied Mechanics of the  
Czechoslovak Academy of Sciences, Prague.



DVORAK, J.  
(Article # 434)

Z detskeho oddel eni Statni oblastni nemocnice v Moste. Dve kolibacilarni meningitidy u dete vylecene streptomycinem a aureomycinem Two cases of E. coli meningitis in children, successfully treated with streptomycin and aureomycin

lek. Listy 1951, 6/10 (239-292) Graphs 2

So: Excerpta Medica Vol. 5 No. 2 Sec. VIII February 1952

DVORAK J.

DVORAK J. Detsk. Stat. obl. nem. v Moste. Aureomycin a meningitidy zpusobena' haemofilem influenzae u deti Aureomycin in H. influenzae meningitis in children  
Pediat. Listy 1952, 7/1 (40-44) Tables 1

This disease is rare in Czechoslovakia (total 9 cases including the 5 reported here). Streptomycin and sulphonamides were used in all 5, plus aureomycin in 2 cases. All patients recovered. The result depends on early treatment and dosage sufficient to prevent development of resistant strains. A combination of sulphonamides, streptomycin and aureomycin is best. Blood transfusions and pyretotherapy (milk injections) are recommended.

Prochazka - Prague (XX, 7, 8)

SO: Excerpta Medica, Section VIII, Vol 5, No 10

DVORACEK, M.; DVORAK, J.; KUBOVY, A.

Antibiotics in the treatment of diarrhea in children and establishment of the sensitivity of intestinal flora, *Pediat. listy*, Praha 7 no.5: 291-295 Sept-Oct 1952. (CJML 23:4)

1. Of the Regional Sanitary Epidemiological Branch Station in Mosty (Head--M. Dvoracek, M.D.) and of the Pediatric Department (Head--J. Dvorak, M.D.) of Mosty Hospital.

DVORAK J. and KUBOVY A.

*Children's Dept. State Hospital*  
 Detské Odd., Statni Nemocn., Most., Ceskoslovensko. \*Popudova therapie resi-  
 dualnich likvorovych nalezu prilecbe hnisavych meningitid u deti. Stimulating  
 treatment in residual findings in the CSF after purulent meningitis in children  
 PEDIAT. LISTY 1953, 8/3 (147-149) Graphs 1  
 As the body is not stimulated spontaneously to form an effective rate of resistance  
 against micro-organisms during chemotherapeutic or antibiotic measures it must  
 be helped, otherwise relapses occur due to resistant strains. The RES can be  
 stimulated by injections of sterilized cow's milk intramuscularly as the most  
 easily available substance for this purpose. It is given in doses of 1.5, 1.0, 1.5  
 2.0, to 2.5 ml. every 2nd day in children up to one year and double those doses in  
 older children. The authors inaugurated this method in the most deplorable of  
 all relapses, those of purulent meningitis, in a child after the 3rd relapse. It  
 is given also to children with resistant pleiocytosis in the CSF after adequate anti-  
 bacterial treatment. Within 9 days the cell count is normal and relapses could  
 be suppressed by the method although antibacterial treatment was stopped simul-  
 taneously. Mention is made of 5 cases; 2 meningococcal, 2 H. influenzae and one  
 in which the micro-organism could not be identified. Bloch - Amsterdam (IX, 7.8.)

SO: EXCERPTA MEDICA Vol. 7, No. 6, Section VIII, June 1954

DVORAK, J.

DVORAK, J., A. KUBOVY, Z. ZAZVORKA AND J. HONS

"A Case of HYpoalbuminemia with Aminoazoduria and Edema in an Infant."  
(Children's Department of the State Hospital in Most; Central Laboratory of the State Hospital in Most).

SO: Ped. listy, Prague, Vol. 8 (1953), No. 6, pp. 340-342.

DVORAK, Jindrich

DVORAK, Jindrich, Dr; DVORACEK, Milos, Dr; KUBOVY, Alexandr, Dr

Rapid test for the requirement of antibiotic in diarrhea in infant by means of complex sensitivity reaction. Pediat. listy 9 no.2:88-89 Ap '54.

1. Z detskeho oddeleni nemocnice v Moste, prednosta Dr Dvorak Jindrich a z krajske hygienicko-epidemiologicke stanice v Moste, prednosta Dr Dvoracek Milos.

(DIARRHEA, in infant and child,

\*thr., antibiotics, rapid test for requirement of antibiotic by complex sensitivity reaction)

(ANTIBIOTICS, therapeutic use,

\*diarrhea in inf., rapid test for requirement of antibiotic by complex sensitivity reaction)



KRAUS, Evzen; DVORAK, Jindrich.

Allergy and immunity in infants after oral BCG vaccination according to de Assis method. Gruzlica 23 no.4:227-234 Apr. '55.

1. Z Oddzialu Gruzlicy. Ordynator: dr med. Evzen Kraus. i z Oddzialu Dzieciecego Ordynator: dr med. Jindrich Dvorak Szpitala w Moscie (Czechoslowacja)

(BCG VACCINATION, administration  
oral, de Assis method, in inf., eff. on allergy  
& immun.)

(TUBERCULIN REACTION  
eff. of BCG vacc. orally administered according to  
de Assis method on allergy & sensitivity in inf.)

EXCERPTA MEDICA Sec 15 Vol 9/5 Chest Dis. May 56

1197. KRAUS E. and DVORAK J. Szpit. w Moście, Czechosłowacja. \* Alergia a odporność u niemowląt szczepionych doustnie dużymi dawkami sposobem de Assisa. Allergy and immunity in infants vaccinated with large doses of BCG according to the Assis method GRUŻ. LICA 1955, 24/4 (227-234) Tables 1

Among infants vaccinated every month with a dose of 100 mg. BCG Moreau's culture demonstrated a certain decrease in percentage of positive tuberculin reaction - up to 30% 3 times vaccinated in the above-mentioned dose (method of Assis). At the same time there appears a considerable increase - up to 100% - of positive BCG tests. 760 infants were tested by the method of Assis in the years 1951-1952. The first vaccination was begun in the first week after their birth. Repeated vaccination did not cause any visible complications.

Dybicki - Gdansk (XV, 7, 17)

DVORAK, J.; FRANCE, A.

~~CONFIDENTIAL~~  
Color sensitivity in psychotic patients. Cas.lek.cesk. 89 no.27:  
773-776 7 July 50. (GLML 19:4)

1. Psychiatric Clinic (Assistant Jindrich Dvorak, M.D.). 2. Eye  
Clinic (Clinic Assistant--Alexej France, M.D.).

VENCovsky, Evzen, MUDr, doc.; DVORAK, Jindrich, MUDr, assistant

Hydrosy; a contribution to the symptomatology of so called diabetic psychoses. Neur. psychiat. cesk. 18 no.1:35-40 Feb 55.

1. Z psychiat. klin. v Plzni. Predn. Docent Mudr Evzen Vencovsky.  
(ENDOCRINE DISEASES, complications  
diabetic psychosis with hallucination of thirst)  
(HALLUCINATION  
thirst in diabetic psychosis)  
(PSYCHOSES  
diabetic, manifested by hallucination of thirst)

MYSLIVECEK, J.;SEDLACEK, J.;VRKOCOVA, M.;DVORAK, J.;JENICKOVA, H.;SEMMELOVA, V.

Preparation of prothrombin, Cas. lek. cesk. 92 no.18:500-501 1 May 1953.  
(GIML 24:5)

1. Of the Physiology Department of the Medical Faculty (Head--Prof.  
F. Karasek, M.D.) of Charles University, Prague.

DVORAK, JINDRICH

VENCovsky, Evzen; DVORAK, Jindrich; NEMECEK, Jaroslav

Experiences with chlorpromazine treatment in psychoses. Cesk.  
psychiat. 53 no.2:111-116 Mar 57.

1. Psychiatricka klinika v Plzni.  
(PSYCHOSES, ther.  
chlorpromazine (Cz))  
(CHLORPROMAZINE, ther. use  
psychoses (Cz))

DVORAK, J.

Formation of focal dominance following deafferentiation. Cesk. fysiол.  
7 no.5:449 Sept 58.

1. Ustav letectveho zdravotnictvi, Praha.

(REFLEX, CONDITIONED,

eff. of deafferentiation on form. of focal dominance (Cz))

*Dvora K, J.*

SCHECK, P., Dr.; DVORAK, J., (prom. lekar)

Experience with neuroplegic drugs in traumatology. Acta chir. orthop.  
traum. cech. 25 no.3:213-218 May 58.

1. Chirurgické oddelení OUNZ v Benesove, predn. doc. Dr. A. Furst.  
(HIBERNATION, ARTIFICIAL, ther. use  
in traumatol. (Cz))  
(WOUNDS AND INJURIES, ther.  
artif. hibernation in traumatol. (Cz))



KODET, R.; HUSIAR, M.; DVORAK, J.

Pressure respiration with the use of a compensatory appliance and its effect on the human organism. Cesk. fysiол. 9 no.1:23-24 Ja 60.

1. Ustav leteckeho zdravotnictvi. Praha.  
(RESPIRATORS)

4.4/72

43174  
S/263/62/000/023/004/005  
E194/E155

AUTHORS: Vavrouch, Dusan, and Dvořák, Jiří  
TITLE: A pneumatic infrared radiation receiver  
PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk, Izmeritel'naya  
tekhnika, no.23, 1962, 63, abstract 32.23.397.  
(Czech. patent cl. 421, 4/13, 42h, 20/01, no.99447,  
April 15, 1961)

TEXT: The patented pneumatic receiver is based on the  
schematic circuit of an American receiver. It consists of a  
chamber, one wall of which is made of a material transparent to  
infrared radiation. Inside the chamber an absorbing element  
periodically receives infrared radiation through a shutter and is  
thereby heated, which raises the pressure of the gas in the  
chamber. The pressure change is picked up by an elastic  
reflecting diaphragm. The surface of the diaphragm is fully sealed  
and it is a component of an optical system consisting of a  
meniscus lens, a plane grating with transparent and opaque bands  
of equal width, a condenser, a lamp, and a photocell with mirror.  
If the diaphragm is flat the upper half of the grating illuminated  
Card 1/2

A pneumatic infrared radiation ...

S/263/62/000/023/004/005  
E194/E155

by the lamp is reflected from the diaphragm and gives a reflection in the lower half of the grating. The transparent bands then coincide with the opaque, and little light reaches the photocell from the mirror and the current in the circuit is low. When the diaphragm is deformed by pressure, it becomes convex or concave and more or less radiation reaches the photocell, giving more or less current. The current is then amplified and recorded in the usual way. The chamber is connected with the internal space by a capillary so that rapid changes in the pressure do not alter the shape of the diaphragm. Obviously the backing surface to which the membrane is fixed should be very well finished and accurate so as not to introduce errors into the light distribution. Hitherto the backing has consisted of hardened carbon steel, which required prolonged heat-treatment, accurate grinding and polishing and was, moreover, rapidly corroded during the process of degreasing in an ultrasonic field. This defect affected the performance of the receiver. In the device patented the backing surface is made of easily worked minerals, whose surfaces do not corrode.

Card 2/2 [Abstractor's note: Complete translation.]

CZECHOSLOVAKIA

DVORAK, J.L., Research Institute for Communications (Vyzkumny Ustav Spoju) in Prague.

"A Transistorized Integrator of Bio-Electrical Potentials with Decimal Divider of Output Frequency."

Prague, Activitas Nervosa Superior, Vol 5, No 4, 1963, pp 393 - 399

Abstract: Author describes an apparatus that he designed for evaluation of bioelectrical potentials. Circuit is based on an integrating amplifier. Negative feed back is from amplifier output to input. Desired voltage in capacitor starts blocking of the oscillator. Resulting pulse unblocks the transistor parallel with capacitor and discharges it. Circuit is linear, but sensitive to temperature. Transistors in blocking oscillators provide returning of cores to initial state. Output pulses are recorded as a series of short deflections; every tenth deflection is recorded with greater amplitude. 7 Figures, 2 Western, 4 Czech, 1 Russian reference.

1/1

DVORAK, Jiri

(16)

1. "Solidification phenomena at mill stream of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.
2. "Solidification phenomena at mill stream of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.
3. "Notes on the geological position of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.
4. "Notes on the geological position of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.
5. "Notes on the geological position of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.
6. "Notes on the geological position of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.
7. "Notes on the geological position of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.
8. "Notes on the geological position of heavy leadenik," Prace, Spis 110, Hrubosledni a Gledadi, Vol VII, No 1, 1972, Publishing House of the Czechoslovak Academy of Sciences, Prague, 1972.

--- 1/3 ---

DVORAK, Jiri

Dependence of wages on production results. Prace mzda 12 no.12:  
558-562 D '64.

DVORAK, Jiri

Case of congenital anastomosis of the hepatic and the inferior  
mesenteric arteries. Rozhl.chir. 29 no.7:288-292 1950. (CML 20:9)

1. Of the Institute of Anatomy of Charles University, Prague  
(Head--Prof. L. Borovansky, M.D.).

DVORAK J. ~~AF~~.

FINGERLAND, A., prof. MUDr; VORTEL, Vl., MUDr; DVORAK, J., MUDr;  
ZDRAHAL, L., MUDr

Generalized cryptococcosis (torulosis). Cas. lek. cesk. 93 no.30:  
809-816 23 July 54.

1. Z kateder pathologicke anatomie, mikrobiologie a neurologie  
Vojenske lekarske akademie v Hradci Kralove.  
(CRYPTOCOCCOSIS,  
clin. aspects)



EXCERPTA MEDICA Sec.9 Vol.11/9 Surgery Sept 1957

4483. (899) DVOŘÁK J. Anat. Úst., Karlovy Univ., Praha. \*Nový operační přístup k loketnímu kloubu. (Přístup laterodistální). A new operative approach to the elbow joint ROZH. CHIR. 1956, 35/6 (373-376) Illus. 4

The incision begins upon the radial epicondylus humeri, crosses the capitulum radii and ends on the dorsal part of the proximal third of ulna. It separates the extensor carpi ulnaris from extensor digitorum communis and cuts the distal part of musculus supinator at the lower part of which a transverse osteotomy of the ulna is done. By incision of the volar face of the joint capsule, dislocation of the capitulum radii and retraction of the proximal fragment of ulna, a wide view into the whole joint is obtained.

Niederle - Prague

CZECHOSLOVAKIA/Human and Animal Morphology - Muscles.

S

Abs Jour : Ref Zhur Biol., No 5, 1959, 21525  
Author : Dvorak, Jiri  
Inst : -  
Title : The Lamina Vastoadductoria and Its Functional  
Significance  
Orig Pub : Ceskosl. morfol., 1957, 5, No 1, 21-30  
Abstract : No abstract.

Card 1/1

- 18 -

DVORAK, Jiri

~~CONFIDENTIAL~~  
An unusual case of intestinal malrotation in a newborn infant with simultaneous meconium ileus. Cesk. pediat. 8 no.6:514-520 5 July 58.

1. Anatomicky ustav lekarske fakulty Karlovy university v Praze, prednosta prof. Dr. L. Borovansky.

(INTESTINES, abnorm.

malrotation with meconium ileus in newborn inf., unusual case (Cz))

(INTESTINAL OBSTRUCTION, in inf. & child

meconium ileus with intestinal malrotation in newborn inf., unusual case (Cz))

(MECONIUM case)

(INFANT, NEWBORN, dis.

meconium ileus with intestinal malrotation, unusual case (Cz))

UHLIR, J.; POTRUSIL, B.; HANZL, J.; JOBANEK, B.; MACEK, M.; DWORAK, J., *ins.*

Contribution to the problem of terylene tissue prostheses. Rozhl.  
chir.39 no.11:721-726 N°60.

1. II. chirurgická klinika v Brně, přednosta prof. dr. Jan Navrátil  
I. patologicko-anatomický ústav v Brně, přednosta prof. dr. Jaroslav  
Svejška. Vědecký ústav lékařský v Brně.  
(ARTERIES surg)

DVORAK, Jiri

SURNAME, Given Name

(2)

Country: Czechoslovakia

Academic Degrees:

Affiliation: Chair of Nutrition and Veterinary Dietetics Veterinary College (Katedra  
a dietetiky veterinarni fakulty VSZ) Brno/Chief Dr Jaroslav KALEBT/

Source: Prague: Zpravodaj CSAZV Veterinarni Medicina Vol 6(34), No 8, Aug 61; pp 657 664

Data: "Vitamin C Level in Deficient and Balanced Diets for Pigs in the Winter Season"

✓ DVORAK, Jiri, graduate veterinarian

✓ SKLENAR, Jaroslav

GPO 981643

DVORAK, J.

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: not given

Affiliation: Balneology Research Institute /Vyzkumny ustav balneologicky/ Director  
/reditel/ Prof K. PREROVSKY; Working Station /pracoviste/ Frantiskove Lazne

Source: Prague, Fysiatricky Vestnik, Vol 39, No 5, Oct 1961; pp 263-264

Data: "New Data on Spa Humolit Deposits in Czechoslovakia and Role of Various Disciplines  
in Basic Research Thereon"

BROZEK, B.

DVORAK, J.

GPO 981643

DVORAK, Jiri

The Paris anatomical nomenclature (P.N.A.1955) and its final improved and revised version (New York, 1960). Cas.lek.cesk 100 no.6:180-187 10 F '61.

1. I.stomatologicka klinika KU v Praze, prednosta doc. dr Jaroslav Toman.

(NOMENCLATURE) (ANATOMY)

DVORAK, Jiri

Some remarks on the final anatomical nomenclature of Paris. Folia  
morphologia 12 no. 4:323-326 '61.

1. I Klinika Stomatologiczna, Uniwersytet Karola, Praga, Czechoslovakia  
Kierownik: doc. dr. J. Toman, C.Sc.



CZECHOSLOVAKIA

DVORAK, J., MD, CSc, Lt Col; PIPAL, M., MD, Lt Col; STVERAK, J. MD, Lt Col; and DOLEZAL, V. MD, CSc; Institute for Aviation Medicine, (Ustav leteckeho zdravotnictvi,) Prague.

"Tolerance to Hypoxia During Total Fast."

Prague, Vojske zdravotnicke listy, Vol 32, No 2, Apr 63; pp 88-91.

Abstract [English summary modified]: Changes to tolerance to hypoxia which occurs during closed-circuit breathing in 8 healthy men aged 18 to 27 during 5 days' total fast were minimal; there was some lability and wider individual scatter; training seemed to play a role; the lack of expected decrease in tolerance is attributed to concomitant slowdown of metabolism due to fasting so that tolerance remains essentially unchanged. Six tables, 3 references: Western, Soviet, Czech unpublished.

1/1

DVORAK, Jiri

Effect of antibiotics in feeds on the vitamin C metabolism  
in growing pigs. Veter medicina 8 no.1:57-64 Ja '63.

1. Chair of Nutrition and Dietetics of the Faculty of  
Veterinary Medicine, Higher School of Agriculture, Brno.  
Head of the Chair: [doc. dr.] Jaroslav Kabrt.

DVORAK, Jiri, MVDr.

Contribution to the explanation of vitamin C action in growing pigs. Veter medicina 9 no. 2:91-98 Mr '64.

1. Chair of Nutrition, Dietetics and Zootechny, Faculty of Veterinary Medicine, Higher School of Agriculture, Brno.

DVORZHAK, Iosaf [Dvorak, Joseph]

Inventors help strengthening Czechoslovakian economics. Izebr. v  
SSSR. 1 no.2:41-43 Ag '56. (MIRA 10:3)

1. Redaktor "Tekhnitske Noviny" ("Tekhnicheskaya gazeta"), Praga.  
(Czechoslovakia--Inventions)

CZECHOSLOVAKIA

DVORAK, Josef, MD, Lt Col; ZEMAN, Miroslav, MD, Lt Col, [Affiliation not given.]

"Hypoxic Convulsions."

Prague, Vojenske zdravotnicke listy, Vol 32, No 2, Apr 63; pp 74-77.

Abstract [ English summary modified] : Hypoxic convulsions in men are quite different than in dogs: in former they are mainly tonic, start with full consciousness and can be broken by attentive rhythmic deliberate tapping; in dogs they occur during inspiration only, clonic and total muscular involvement. Studies were done in 122 men and 30 dogs. Graph, 3 kymograms illustration of Lottig test (writing down numbers backwards starting from e.g. 990: 990, 989, 988, etc.); References: senior author's Czech thesis, 2 Soviet, 8 Western.

1/1

CA

10

Preparation of styrenic nitriles by pyrolysis of acetylated hydroxy acid nitriles. J. Dvofák. *Collection Czechoslov. Chem. Commun.* 15, 905-17(1951) (in French).—The dehydration of cyanohydrins was best accomplished by pyrolysis of the acetoxy deriva. This work was done to det. the optimum conditions, such as temp. and contact time. For each compd., the optimum decompn. temp. varies and an increase in temp. has no effect. Increased contact time can lower the temp. needed for pyrolysis but increases the amt. of by-products. There are indications that an increase in mol. wt. permits easier pyrolysis and that mol. structure plays a role in the pyrolysis. Harold H. Levine

DVORAK, J.

24(2,4)

PHASE I BOOK EXPLOITATION

CZECH/2433

International Polarographic Congress. 1st. Prague, 1951

Sborník I. Mezinárodního Polarografického sjezdu. Díl 3. Hlavní referáty přednesené na sjezdu. Proceedings...Vol 3. Reviews Read at the Congress. Praha. Přírodovědecké vyd.-VI (1952) 774 p. 2,000 copies printed.

Resp. Ed.: J. Kovács, Doctor; Chief Ed. of Publishing House: Milan Svahník, Doctor; Tech. Ed.: Oldřich Duka.

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

COVERAGE: The book is a collection of reviews and original papers read at the International Polarographic Congress held in Prague in 1951. Uses of polarography in organic and inorganic analysis, biochemistry, medicine, and industrial chemistry are discussed. In the section, Reviews Read at the Congress, review are either German or English translations of each paper presented. In the section, Original Papers Read at the Congress, only those translations in Russian, German, and English which have not been published in Volume I are presented. The following scientists participated in the opening of the Congress: Professor Viktor Kemula, Dean of the Faculty of Sciences, Professor Jaroslav Herovský, Chairman of Planning, Professor Jaroslav Fuks, Chairman of the Congress, and Professor Jaroslav Fuks, Chairman of the Center for Scientific Research and Technical Development. References follow each paper.

Fouček, J. Apparatus for Oscillographic Polarography	241
[Russian Translation]	250
[German Translation]	259
Heyrovský, J. Oscillographic Polarography	268
[Russian Translation]	273
[English Translation]	279
Brdicka, R. Kinetics of Electrode Processes in Polarography	286

Card 3/14

Arad, H. Polarographic Study of Basic Trivalent Chromium Salt Systems	395
Krivanek, M. Complexes of Iron with Saccharose	399
Dostovsky, M. and M. Ebert. Effect of Gelatin and Thymol on Cathodic Deposition of Cations at a Dropping Mercury Electrode	404
[Russian Translation]	407
[German Translation]	410
Kuta, J. Study of Hydrogen Overvoltage With a Mercury Electrode With Controlled Dropping Time	413
Dyck, J. Effect of Capillary Constants on the Maximum of Current	418
[Russian Translation]	421
[German Translation]	423
Vavruch, I. Attempt to Classify Refined Sugars by the Polarographic Method	427
[Russian Translation]	436
[German Translation]	432

ORIGINAL PAPERS READ AT THE CONGRESS

Kalousek, M., and A. Tokatzev. Validity of the Nernst Equation in the Deduction of the Polarographic Wave Equation	359
Black, J. A. Polarography in Concentrated Sulfuric Acid	366
[Russian Translation]	370
[English Translation]	373
Valenta, P. Study of Current Discontinuity Appearing on a Calomel Beam Electrode	377
Masek, J. Discontinuity on Polarographic Curves Observed	377

*Electrochemistry*

CA

Electrolyte whirling around the dropping-mercury electrode. J. Dyrofik and P. Herrmann (Charles Univ., Prague, Czech.). *Chem. Listy* 46, 665-6 (1952).—The speed of whirling of the electrolyte around the dropping-mercury electrode is measured by means of the movement of charcoal particles added to the electrolyte. The movement of a particle is recorded on a motion picture taken through a microscope, and the speed detd. from the exposure and frequency.

M. Hudlický



DVORAK, Jiri

Navody ke cvicenim z fysikalni chemie. (Vyd. 1.) Praha, Statni pedagogicke nakl., 1953. 93 p. (Ucebni texty vysokych skol) (Manual for laboratory experiments in physical chemistry; a university textbook. 1st ed. illus.)

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

DVORAK, J.

"Ultrasonics in Practice", P. 2, (TECHNICKE NOVINY, Vol.1, No. 17/18,  
Dec. 1953, Praha, Czechoslovakia)

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

**"APPROVED FOR RELEASE: 08/25/2000**

**CIA-RDP86-00513R000411620018-8**

**APPROVED FOR RELEASE: 08/25/2000**

**CIA-RDP86-00513R000411620018-8"**

DVORAK, Jiri

Chemical Abst.  
Vol. 48  
Apr. 10, 1954  
Electrochemistry

②  
Some properties of polarographic maxima of the second kind. Jiri Dvorak (Charles Univ., Prague, Czech.). Chem. Listy 47, 669-74 (1953).—An all-glass polarographic vessel was constructed which permitted the use of the "electromagnetic knocker". The max. of the 2nd kind (I) also were found with anodic depolarization. I did not show hysteresis and were independent of the circuit resistance <10 kilo ohms. With increasing temp., I increased faster than the diffusion current. The whirling of the 2nd kind had no influence on the kinetic currents. In the potential range where the max. were partially suppressed by soln. impurities, the  $i-t$  curves had the characteristic adsorption shape. The influence of the capillary const. on I could be expressed by an empiric relation:  $i_m \sim k \sim m^{1/4} j^{1/4}$ .  
E. Brdós