

DVORACEK, E.

"Measuring impurities on insulators of open-air electric installations."

Energetika. Praha, Czechoslovakia. Vol. 8, no. 12, Dec. 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

DVORACEK, E.

"Draft of the Czechoslovak standard for testing equipment of high and very high alternating voltage."

ENERGETIKA, Praha, Czechoslovakia, Vol. 9, no. ⁴3, March 1959

Monthly List of East European Accessions Index (EEAI), Library of Congress,
Vol. 8, no. 8, August 1959

Unclassified

DVORACEK, E.

Analysis of a breakdown caused by soiled insulators on a 110 kv.
power line. p. 415.

ENERGETIKA, Praha, Czechoslovakia, Vol. 9, no. 8, Aug. 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 10
Oct. 1959.

Uncl.

DVORACEK, Emil, inz.

Safe distance in repairing the high-tension and very high-tension overhead lines without interruption of operation. Energetika Cz 6 no.9:402-403 8 '56.

DVORACEK, E.

Research on climatic conditions affecting the construction and operation of outdoor-high-voltage lines. Energetika Cz 11 no.10:529 0 '61.

DVORACEK, Emil, inz.

Testing of cap insulators by insulation testers. Energetika Cz
13 no.2:83 F '63.

1. Vyzkumny ustav energeticky, Brno.

DVORACEK, Emil, ins.

Maintenance of high-voltage and extra-voltage insulators in contaminated environment. Energetika Cz 13 no.6:293-296 Je '63.

1. Vyzkumny ustav energeticky, Brno.

DVORACEK, E., inz.; WALLA, J.; ULICNY, F.

Data for calculation of insulators in polluted surroundings.
Energetika Cz 14 no.8:375-378 Ag '64

1. Research Institute of Power Engineering, Brno.

DVORACEK, Emil, inz.

Voltage characteristics of polluted insulators. Energetika Cz 14
no.11:550-562 N '64.

1. Research Institute of Power Engineering, Brno.

ZALESK, Z., inz.; DVORACEK, F.

Connection of phasemeters in low-tension distributors.
Energetika Cz 7 no.2:95-99 F '57.

DVORACEK, Frantisek

Hidden loss of electric power. Energetika Cz 12 no.3:153-156
Mr '62.

DVOHACEK, Frantisek

Control of the neutral wire load current. Elektrotechnik 18
no. 6:175-176 Ja '63.

DVORACEK, Frantisek

Improper use of star-delta switches. Elektrotechnik 19
no.4:118 Ap '64.

DVORACEK, Hubert, dr.

Optimum size of food factories and their location. Prum
potravin 15 no.4:153-154 Ap '64.

1. Ministry of Food Industry, Prague.

DVORACEK, J.

Underlying economic conditions of the general plan for a network of forest roads. p. 51.

No. 1, 1955
SEBNIK RADA C: SPISY FAKULTY LESNICKE
Brno, Czechoslovakia

So: Eastern European Accession Vol. 5 No. 4 April 1956

Z/034/61/000/010/001/002
E112/E553

AUTHORS: Horčic, Karel, Engineer and Dvořáček, Josef

TITLE: Some problems of aluminium production

PERIODICAL: Hutnické listy, 1961, No.10, pp.710-715

TEXT: Present aluminium production in Czechoslovakia does not meet steadily increasing demands and projects for the building of additional plant, with special reference to available raw materials and their location, are discussed. The problem is presented in three main sections: 1) Production of aluminium oxide, 2) its conversion, by electrolysis, to aluminium, and 3) possibility of aluminium production by an electric furnace. Ad 1) Two processes are available for aluminium oxide production: the Bayer process which is only applicable to high-grade, SiO_2 -poor bauxites and the older fusion process which is limited to lower-grade bauxites. The aluminium works in Czechoslovakia are based on aluminium oxide, produced by the fusion process from lower-grade Hungarian bauxite. The process is more complicated, energy expenditure is higher and the material is not very well suited for electroconductive aluminium. A special desilication process is

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inserted in the Czechoslovak plant. It is suggested that lower grade bauxites may be processed by a combination of the Bayer and fusion methods, but difficulties may be encountered at some stages of the process, particularly during filtration of the residues of iron oxides. Production costs of aluminium oxide and aluminium are itemized, indicating that raw material costs are the decisive factor for aluminium oxide, while electric energy is the essential factor for aluminium.



Aluminium:

Raw-material	56%	(from 80% Al ₂ O ₃)
Electric energy	22%	
Wages	3.9%	
Maintenance	11.2%	
Special costs	2.2%	
<u>Works overheads</u>	<u>4.7%</u>	
<u>Total</u>	<u>100.0%</u>	

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Aluminium oxide:

Raw materials (bauxite)	28%
Energy (electric, steam, water, air)	29%
Wages	5.5%
Maintenance	37.5%
<u>Total</u>	<u>100.0%</u>

The complex nature of the aluminium process is mirrored by high maintenance costs. Supplies of Hungarian bauxite are limited and domestic raw materials will have to be investigated. The kaolinites from the North Bohemian coal basin (dry contents: 30-35% Al_2O_3 , 40-45% SiO_2 , 2-10% Fe_2O_3 , 1-6% TiO_2) are, theoretically, of interest because of the relatively high Al content, but the high SiO_2 ratio, on the other hand, would necessitate a preliminary treatment. Although the process would be complicated, it is estimated that costs would not exceed that of the fusion process from low-grade bauxites. Reliable data could, however, be established only after prolonged pilot-plane experiments. It is generally estimated that aluminium production from domestic materials would require a period from 8 to 10 years

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before it could be established successfully. The purchase of bauxite from overseas may be necessary. Ad 2) The electrolytic process for aluminium production from Al_2O_3 is described in detail. Types of electrolytic cells are reviewed. Aluminium works ought to be built in the immediate vicinity of cheap electricity supply. The problem is complicated by the fact that power stations in Czechoslovakia are located in the more densely populated agricultural districts. The effects of the toxic anodic exhalations have to be carefully examined. These considerations would suggest that production units should not exceed an annual production of 100 000 tons of Al. In order to improve the economy of the electrolytic process, the use of semiconductor rectifiers and large electrolytic cells with an intensity of 100 kA are recommended. Ad 3) Discussion of electrothermic process. It should be possible, on theoretical considerations, to meet the entire Czechoslovak requirements of aluminium alloys (silumine, an alloy with silicium) from domestic raw materials (low-grade kaolines) by using the electric arc process. The construction of a high-capacity single-phase arc furnace remains the main problem. The purchase of a pilot-plant furnace from Eastern Germany is

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recommended. The results of some Soviet experiments with an
experimental furnace of 16 MVA should be awaited.

ASSOCIATION: Hutní projekt, Prague

SUBMITTED: July 11, 1961

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S/263/62/000/005/001/010
1007/1207

24, 2200

Author: Dvořáček, Josef

Title: MEASURING DEVICE FOR TRANSDUCERS, BASED ON THE INVERSE
MAGNETO-STRICTIVE EFFECT

Periodical: *Referativnyy zhurnal, Mashinostroyeniye*, no. 5, 1962, 18, abstract 32.5.99 P (Czech. patent, class 2/e, 31, no. 95458, 15.06.1960)

Text: A patent has been issued for a phase-sensitive device designed to measure the voltage of a transducer; the latter consists of a ferromagnetic tube in which a cylindrical magnetic field is generated by means of an a.c. excitation winding the leads of which pass through the tube. When a torque is applied to the tube, the cylindrical magnetic field is distorted and an E.M.F. is induced in the secondary coils wound around the tube. The winding of the transformer feeding the excitation winding of the transducer, forms the auxiliary voltage source. The secondary (winding) of the transformer has a central output connected through the device with the slider of the potentiometer. The potentiometer outlets are connected through rectifiers and regulating resistances with the excitation winding so that the inlet of one tapped coil is connected with one end of the excitation winding, the second end of which is connected with the end of the second tapped coil. Such a circuit permits the transducer to be connected with the measuring device by four conductors only.

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[Abstractor's note: Complete translation.]

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MODR, Z.; HEJZLAR, M.; GRAFNETTEROVA, J.; DVORACEK, K.; BLAHA, V.

Oxacillin in macroorganisms. Cas. lek. cesk. 104 no.27/28:
735-742 9. JI '65.

1. Vyzkumny ustav experimentalni terapie v Praze (reditel
prof. dr. O. Smahel, DrSc.), Vojensky ustav hygieny, epi-
demiologie a mikrobiologie v Praze a I interni oddeleni
Thomayerovy nemocnice v Praze-Krci (vedouci MUDr. J.A.
Trojan).

SMANEL, O., prof. dr., DrSc.; GRAFNETTEROVA, J.; SCHUCK, O.; DVORACEK, K.;
KOHIG, J.

Renal excretion of 6-azauracilribosides in man. Cas. lek. cesk.
104 no.12:308-311 26 Mr'65.

1. Vyzkumny ustav experimentalni terapie a interni katedra
Ustavu pro doskolovani lekaru v Praze (reditel: prof. dr.
O. Smahel, DrSc.).

SMÁHEL, O.; SCHÜCK, O.; DVORACEK, K.; Technická spolupráce: NECASKOVA, A.;
BAMBASOVA, Z.

Distribution capacity and plasma and renal clearances of penicillin
G. Cas. lek. Cesk. 104 no.41:1117-1122 15 0 '65.

1. Vyzkumny ustav experimentalni terapie v Praze (reditel prof. dr.
O. Smahel DrSc.).

DVORACEK, L.; SPURNY, M.

"Some problems of organization in industrial management."

p. 113 (Hutnik, Vol. 8, No. 4, April 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 9, September 1958.

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.

DVORACEK, Milos

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)

DVORACEK, M.; MUZIKAR, V.

Problems of occurrence and action of anaerobic microorganisms on the quality of meat and meat products. p. 474.

CESKOSLOVENSKA HYGIENA. Praha, Czechoslovakia. Vol. 4, no. 8, Sept. 1959.

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

Uncl.

DVORACEK, M

"Solution for the correct relation between animal and plant production on stock-breeding farms." (p. 365). ZA SOCIALSITICKE ZEMEDELSTVI (Ministerstvo zemedelstvi a Ceskoslovenska akademie zemedelskychved) Praha, Vol 4, No 4, Apr 1954

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

DVORACEK, M.; HOLL, C.

Activities of the Research Institute of Cattle Breeding.

p. 247

Vol. 3, no. 5, 1956

BESEDA VENKOVSKÉ RODINY

Praha

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 12
December 1956

DVORACEK, M.

"Results of the investigation of the redspotted cattle."

VESTNIK. Praha, Czechoslovakia, Vol. 5, No. 7/8, 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

STEJSKAL, Jan; PLESNIK, Jan; HRUSKA, Ladislav; SVOBODA, Jaroslav; NAJMR, Stanislav; PREININGER, Miroslav; HAUNER, Frantisek; BENDA, Josef, inz.; KRAJCOVIC, Vladimir; VLCEK, Kvetoslav; KRBLICH, Jan; CERNY, Ladislav, Dr.; DVORACEK, Miroslav, inz. dr.; CHYTRA, Frantisek, inz.; FOLTYN, Jiri; VYSKOT, Miroslav; STAMBERA, Jaroslav, C.Sc. Doc. Inz.; KOSIL, Vladimir; STUHLIK, Jaroslav, Inz.; NAKLADAL, Jaroslav, Inz.; RICHTER, Lev, MVDr.

Statements of directors of institutes, and of managers of workplaces of the Czechoslovak Academy of Agricultural Sciences. Vestnik CSAZV 8 no.8/9:496-531 '61.

1. Dopisujici clen Ceskoslovenske akademie zemedelskych ved (for Stejskal, Plesnik, Hruska, Svoboda, Najmr, Preininger, Hauner, Benda, Krajcovic, Krblich, Dvoracek, Foltyn, Vyskot, Kosil) 2. Clen redakcni rady Vestniku Ceskoslovenske akademie zemedelskych ved (for Plesnik, Preininger, Foltyn, Vyskot) 3. Reditel Vyzkumneho ustavu zivocisne vyroby Ceskoslovenske akademie zemedelskych ved v Uhrinevsi (for Dvoracek) 4. Reditel Ustavu pro vedeckou soustavu hospodareni Ceskoslovenske akademie zemedelskych ved v Praze (for Benda)

(Czechoslovakia--Agriculture)

DVORACEK, Miroslav, inz.

Solved tasks concerning the animal production. Vestnik vyzk
zemedel 8 no.10:463-465 '62.

1. Reditel, Ustredni vyzakumny ustav zivocisne vyroby, Uhrineves.

DVORACEK, Miroslav, dr., inz.

Activities of the Central Research Institute for Animal
Production in Uhřetěves. Vestník vyzk zemědel 9 no.10:487-490
'62.

1. Ředitel, Ústřední výzkumný ústav živočišné výroby, Uhřetěves.

EXCERPTA MEDICA Soc 5 Vol 12/11 General Path. Nov 59...

3437. THE VALUE AND SIGNIFICANCE OF SPLENECTOMY FOR THE RADICALITY OF ABDOMINOTHORACIC OPERATIONS IN CANCER OF THE STOMACH AND CARDIA - O významu a cené splenektomie pro radikálníu abdominotorakálníu výkonu u rakoviny žaludku a kardio - Dvořáček Š. A. Č. Chir. Klin., Palackého Univ., Olomouc; Pat. Ústav. Lék. Fak., Palackého Univ. Olomouc - ČSL GASTROENT. VYZ. 1959, 13/1 (9-20)
Tables 13

A report of the results of a detailed study on the lymphatic dissemination of cancer of the stomach and cardia with special attention to the lienal lymphatic area. A total of 63 specimens was studied. In 40 the lymphatic system was invaded by metastases and in 12 (30%) there were metastases in the lymph nodes of the lienal area. From the total of 147 lymph nodes from the lienal area in the twelve specimens mentioned, in 31 nodes (21%) metastases were found. The group of supra-pancreatic nodes was most heavily affected with metastases (41% of the glands); 8% of the hilar nodes had metastases. It is stressed that simple splenectomy without concomitant resection of the adjacent lymphatic system especially the para-pancreatic nodes along the lienal vessels does not represent a substantial contribution to the radicality of the abdomino-thoracic surgical operation in cases of gastric cancer and cancer of the cardia. Among 10 patients with metastases in the lienal area only 2 survived for more than 3 yr.; no patient survived 5 yr. after the operation. (IX, 5, 16)

DVORACEK, V., ins.

Electric traction without accident. Zel dop tech 10 no.11/338-339
'62.

DVORACEK, Vaclav, inz.

Reconstruction of the E 669.1 electric locomotives. Zel dop tech
11 no.10:287-289 '63.

DVORACEK, Vladimir, inz.

Unified traffic signs will facilitate driving. Sign doprava 13
no.1:12-13,26 Ja '65.

Dvoracek, Z.

United toward further success. p. 205. PAPIR A CELULOZA.
(Ministerstvo lesu a drevarskeho prumyslu) Praha. Vol. 9,
no. 10, Oct. 1954

SOURCE: EEAL - IC Vol. 5 No. 10 Oct. 1956

DVOŘACEK, Z.

SCIENCE

PERIODICALS: ČESKOSLOVENSKÝ ČASOPIS PRO FYZIKU. Vol. 8, no. 4, 1958

DVOŘACEK, Z: The elastic coupling between longitudinal and transversal vibrations of isotropic rods. p. 508

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 5
May 1959, Unclass.

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Z/037/60/000/02/008/018

24.4100

AUTHORS: Brdicka, Miroslav, Novakova-Dvorska, Marketa and Dvoracek, Zbyněk E073/E335

TITLE: On Two Approximate Methods of Computation of Longitudinal Oscillation Frequencies of Homogeneous and Isotropic Bars

PERIODICAL: Ceskoslovensky casopis pro fysiku, 1960, Nr 2, pp 136 - 146

ABSTRACT: The authors review the two best known approximate methods of computation of longitudinal oscillation frequencies of rectangular and circular cross-section bars, namely, those of Rayleigh (The Theory of Sound, Vol I, London 1926, 251-252) and of Giebe and Blechschmidt (Ann. d. Phys. 18 (1933), 5, 417, 457). The correction introduced by Rayleigh improves the frequency equation only for some of the lower oscillation frequencies but at higher frequencies there is still a considerable divergence between the corrected equation and the measured frequencies. A much better agreement between calculated and measured frequencies is obtained by the calculations of Giebe and Blechschmidt, who derived a frequency equation on the basis of the theory of coupled oscillations.

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On Two Approximate Methods of Computation of Longitudinal Oscillation
Frequencies of Homogeneous and Isotropic Bars

of systems with a finite number of degrees of freedom. The fields of application of both methods and some of their disadvantages are discussed. The authors also review the work of Mindlin and Herrmann (Columbia Univ., NY, Dept, Civ. Eng., Sept., 1951) (this paper was not available to the authors - only a review of same by Malvern - Appl.Mech. Rev. 5, 1951, 1308) and the work of Mindlin (J. Appl. Phys. 22, 1951, 316), although this does not relate directly to homogeneous and isotropic rods. The paper deals in particular detail with the theories of Rayleigh and Giebe and Blechschmidt, which formed the starting point of experiments by the authors of this paper to obtain a better agreement between calculated and measured frequencies and the result of this work forms the subject of a separate paper. The authors conclude that the relative failure of the Giebe-Blechschmidt theory of longitudinal oscillations for rods of rectangular and circular cross-section can be understood by considering the success of this theory.

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On Two Approximate Methods of Computation of Longitudinal Oscillation Frequencies of Homogeneous and Isotropic Bars

for thin tubes. In the latter case, the conception of coupling two suitable oscillation systems leads to results which can be obtained from theoretical considerations based on the fundamental dynamic equations of the theory of elasticity and this also explains the good agreement between calculated and measured frequencies. Giebe and Blechschmidt tried to apply this procedure, which was successful for thin tubes, for rods of circular and rectangular cross-section. The thus obtained results are not sufficiently related with the theory of elasticity although in the first series of experiments the measured values of the frequencies of rods of longitudinal and circular cross-section were in good agreement with the values predicted by the coupling theory. It appears that the main difficulty of their theory is their adherence to the dead zone, which is contradicted even by their own measurements. The question arises whether addition of higher frequencies of transverse oscillations would not be helpful in the case; from the point of view of the

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Giebe-Blechsmidt theory the value of the coupling parameter will become important since according to the conception of both authors the character of the coupling would no longer be the same. The authors of this paper believe that the question of coupling parameters is more complex than appears from the Giebe-Blechsmidt theory, according to which the magnitude of the coupling parameters does not depend on the class of longitudinal oscillations and is equal for all the theories. Its determination from limit frequencies is also doubtful in spite of the fact that the results have justified this procedure to some extent. Thus, the theory of Giebe and Blechsmidt (or the theory of Giebe and Scheibe) was fully successful as long as the results obtained were equal to those obtained by the theory of elasticity, i.e. for thin-walled tubes. It appears that by introducing coupling between systems with finite degrees of freedom the laws of the theory of elasticity are not fully adhered to in the case of solid

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On Two Approximate Methods of Computation of Longitudinal Oscillation
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rods. Therefore, the authors have attempted to derive approximate equations for the frequencies of oscillation of solid rods by another method described in an earlier paper (Čs.Čas.fys. 8(1958), 508). As starting equations

$$e_{22} = -\sigma e_{11}, \quad e_{33} = -\sigma e_{11} \quad (2.8)$$

$$\frac{\partial v}{\partial y} = -\sigma \cdot \frac{\partial u}{\partial x}, \quad \frac{\partial w}{\partial z} = -\sigma \cdot \frac{\partial u}{\partial x} \quad (2.9)$$

were used, where e_{ij} are the strain components and $u_2 \equiv v$ and $u_3 \equiv w$ are the components of the elastic displacements in the direction of the y and z axes; the equations were generalised, i.e. instead of the Poisson constants σ , the two parameters φ and ψ were introduced, which as a general rule vary with the

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On Two Approximate Methods of Computation of Longitudinal Oscillation
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order of the oscillations and for their determination a condition is introduced that the appropriate frequency assumes a steady-state value. Under certain simplifying assumptions the authors succeeded in obtaining equations for frequencies, the results of which are approximately in as good agreement with the measured results as results calculated according to the Giebe and Blechschmidt theory and there is the advantage that this method does not rely on the conception of a dead zone. There are 18 references, of which 9 are English, 8 German and 1 Czech.

ASSOCIATIONS: Matematicko-fyzikální fakulta University Karlovy, Praha
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Výzkumný ústav matematických strojů, Praha
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Ústav technické fyziky ČSAV, Praha
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SUBMITTED: December 1, 1959

CZECHOSLOVAKIA

R. PRIX and I. DVORACKOVA, Infectious Diseases Clinic (Infekcni klinika,) Head (prednosta) Docent Dr J. ONDRACEK; and Department of Pathological Anatomy (Patologickoanatomicky ustav) Head Prof Dr A. FINGERLAND, Dr Sc, Medical Faculty (Lekarska fakulta) KU [Karlova University, Charles University] Hradec Kralove.

"Diagnosis of Acute Thallium Poisoning."

Prague, Časopis Lékařů Českých, Vol 102, No 2, 11 Jan 63; pp 46-51.

Abstract [English summary modified]: Description and discussion of two cases. The first was accidental ingestion of rat poison containing 2% Tl sulfate by woman aged 22 who then showed typical symptoms including alopecia and leukonychia so that it was diagnosed without difficulty, but still required 6 months' hospitalization with residual polyneuritic motor impairment. The second case, woman aged 43, had very perplexing polyneuritic symptoms (tentative diagnosis botulism) and died suddenly in respiratory paralysis and cardiovascular failure after receiving botulin antitoxin; spectrography of brain revealed Tl, eventual forensic decision suicide. 26 Western, 11 Czech, 1 Polish reference. 1/1

DVORACKOVA, J.

Water supply conditions abroad. Vodni hosp 15 no.3:109-110
'65.

Water resources conditions in India. Ibid.:117-118

CZECHOSLOVAKIA

~~DVORACKOVA, J.~~; LICHY, J.; Institute of Pathological Anatomy (Ustav Patologicke Anatomie) Head (Prednosta) Prof Dr A. FINGERLAND, Neurological Clinic (Neurologicka Klinika) Head (Prednosta) Prof Dr M. SERGL, Pediatric Clinic (Detska Klinika) Head (Prednosta) Prof Dr J. BLECHA, Medical Faculty Charles University (Lek. Fak. KU), Hradec Kralove.

"Clinical and Anatomical Findings in 4 Cases of Familial Amaurotic Idiocy."

Prague, Ceskoslovenska Neurologie, Vol 29, No 4, Jul 66, pp 255-260

Abstract [Authors' English summary modified]: Four cases are described; two showed the infantile form and the patients died at the age of 17 and 30 months. Two were of the late infantile type and died aged 9 and 11 years. In the infantile types, pyramidal signs, hypomimia, spastic weeping, and tremor at rest were observed. Laboratory findings showed hypoglycemia. Degenerative changes in ganglion cells in the whole CNS were found. Intense scavenger reaction of the mobile type, secondary gliosis, and demyelination were present in the infantile, not in the late infantile type. Findings are similar to Niemann-Pick's disease. 5 Figures, 2 Tables, 6 Western references. (Ms. rec. 7 Jan 66).
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DVORACEK, M.

✓ Durable soil aggregates as factors of soil structure
 Miklós Dvoracek (Agrichem Research Inst. Budapest)
Agrochimia és Talajtan 1, 255-262 (1961) Physical colloid
 A. E. Chem. and soil factors play a role in the formation of
 durable soil aggregates. The use of only org. fertilizers
 such as manure cannot ensure the formation and stability
 of soil aggregates. Systematic manuring, however, retards
 the deterioration of soil structure. It is suggested that
 manure encourage the formation of soil aggregates of the best
 quantity. The percentage of durable soil aggregates was 18%
 in a Mezőhegyes soil sample contg. 4% org. substance
 under continuous cultivation (manured, unsensitized) and
 27% in another soil at the same place contg. 12% org. sub-

stance virgin grass conditioning that influences the soil
 soil structure even when continuous manuring is applied.
 (Dvoracek family)

Dvoracek, Miklos

Structural status of Hungarian soils. Miklos Dvoracek, Andor Klimes-Szmit, and Sara Fejer (Agronomic Research Inst., Budapest). *Agrokémia és Talajtan* 1, 479-92 (1952).
—Water stability of soil aggregates detd. by the Savinov method, slightly modified by Dvoracek, showed that the stability of soil aggregates under a natural vegetation is almost completely independent of soil type and of quality of natural vegetation. Hungarian soils under a natural vegetation contain on the av. 60-75% water-stable aggregates, except soils of virgin meadows formed on very light sand soils. Water stability of aggregates was best in topsoil in soils under a natural vegetation. Soils in continuous cropping showed strongly deteriorated structure. I. Finály

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DVORACEK, M.

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Chem ab 148
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Soils + Fertilizers

Influence of stickiness on the water stability of soil aggregates. Miklós Dvorcek, Andor Klimes-Szmik, and B. Sára Főér (Agrochem. Research Inst., Budapest). *Agrokémia és Talajtan* 2, 17-26(1953).—The examn. of 24 soil samples representing the types most frequently occurring in Hungary, which in the original state contained nil-67.80% water-stable aggregates, was carried out by detg. the water stability of artificial aggregates prepd. from pulverized soil by the addn. of 60% water of the sticky point value by Arany's technique (C.A. 25, 2793). The cementing effect of org. substances irreversibly coagulated (responsible for the water stability of soil aggregates with a structure) can be eliminated by the prepn. of artificial aggregates. The cementing effect of mineral colloids was not observable when artificial aggregates were prepd. from steppe soils or from virgin soils of other type. . . . I. F.

DVORACEK, M.

Let us know our soils; humus and soil bacteria. p. 8. (Magyar Mezőgazdaság, Vol. 11, no. 1, Jan. 1956 Budapest)

SO: Monthly List of East European Accession (EEAL) IC, Vol. 6, no. 7, July 1957. Uncl.

DVORACSEK, K.

Let us know our soils. p. 12. (Magyar Mezőgazdaság, Vol. 11, no. 2, Jan. 1956 Budapest)

SO: Monthly List of East European Accession (EEAL) IC, Vol. 6, no. 7, July 1957. Uncl.

DVORACSEK, M.

The first steps. p. 12. (Magyar Mezőgazdaság, Vol. 11, no. 2, Jan. 1956 Budapest)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

DVORACSEK, M.

Endurance of soil structure. IV. p. 10. (Magyar Mezogazdasag, Vol. 11, no. 4, Feb. 1956 Budapest)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

Dvoracsek, M.

HUNGARY/Soil Science - Physical and Chemical Properties of Soils. J-3

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10503

Author : Dvoracsek, M., Dvoracsek-Vadanyi, M.

Inst : Agricultural Institute of the Hungarian Academy of Science

Title : The Structure of Virgin and Cultivated Soils.

Orig Pub : Magyar tud. akad. agrartud. oszt. kozl., 1956, 9, No 1-3,
111-157

Abstract : This is a description of the results of an investigation of the aggregate composition of argillaceous chernozems and meadow-argillaceous soils conducted by the Institute of Agriculture of the Hungarian Academy of Sciences in Martonvaros. Water-resistant lumps, 1-5 mm. in size, predominate under the virgin soil. Cultivating the soils leads to an increase in the quantity of the less valuable coarse fractions and the excessively fine fractions.

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HUNGARY/Soil Science - Physical and Chemical Properties of Soils. J-3

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10503

The water-resistance of the lumps declines noticeably in connection with reduction in their diameter. The porosity of separate lumps of virgin soils is higher than that of lumps of cultivated soils. Data on observations are given in 19 tables.

Card 2/2

DVORAK.

A conference of inventors and improvers in oil industries. p. 315.

PRUMYSL POTRAVIN. (Ministerstvo potravinarskeho prumyslu) Prava, Czechoslovakia,
Vol. 10, no. 6, June 1959.

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

uncl.

COUNTRY : CZECHOSLOVAKIA
CATEGORY : Cultivated Plants. Fruits. Berries.
ABS. JOUR. : RZhBiol., No. 23, 1958, No. 104853
AUTHOR : Dvornik, A.
INST. :
TITLE : Apple Tree Variety - Oldenburg
ORIG. PUB. : Ovocnar. a zelinar., 1958, 5, No. 3, 70-71
ABSTRACT : No abstract.

CARD: 1/1

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DVORAK, A.

7

Polarographic and potentiometric determination of xantho-
genase. M. Čap, A. Dvořák, and J. Honel. *Journal of*
Chemical Education, 42(12), 1965, 2037-2040. 4 refs.
 Xanthogenase (EC 1.11.1.1) was determined polarographically
 with Ag₂S as the Ag electrode in a 0.1 M NaOH solution
 in the presence of 1.0 x 10⁻³ M xanthogenase. The
 polarographic determination of xanthogenase is
 based on the formation of a silver xanthate precipitate
 which is independent of pH. The reduction potential
 of the Ag₂S electrode is 0.46 V. The reduction
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 The reduction potential of the Ag₂S electrode is 0.46 V.

DWORZAK, A. (Praga, Chekhoslovakiya)

Investigating soil properties by means of penetration testing.
Osn. fund. i mekh. gran. 2 no.6:27-30 '60. (MIRA 13:12)
(Soil mechanics)

DVORAK, A.

Dvorak, A.

Improvement of the Pokrok 120 flax gatherer. p. 213.

Vol. 5, no. 11, June 1955
MECHANISACE ZEMEDILSTVI

SO: Monthly List of East European Accession, (EEAL) LC, Vol. 4, No. 9,
Sept. 1955, Uncl.

DVORAK, Arnost, inz., dr.

Seismic effect of explosions on brickbuildings. Geofys sbornik
9:355-380 '61.

1. Geologische Erkundung, Praha.

DVORAK, Arnost, inz., dr.

Construction of the bridge over the Yangtze River near
Wuhan in China. Inz stavby 6 no.3:166-167 Mr '58.

DVORAK, A.

Practices in laying foundations, p. 262. INZENYRSKE STAVBY. Praha. Vol. 2, no. 7, July 1954.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956.

DVORAK, A.

Measuring vibrations in foundation soils and in foundations. p.222.
(INZENYRSKE STAVBY, vol. 3, no. 6, June 1955, Praha)

SO: Monthly List of East European Accession, (KEAL), IC, Vol. 4, No. 11,
Nov. 1955, Uncl.

Dvorak, A.

Draft of our new standards for foundation soils. p. 166.
INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha.
Vol. 4, no. 4, Apr. 1956

Source: EEAL IC Vol. 5, No. 10 Oct. 1956

DVORAK, A.

DVORAK, A. Diagram for calculating the stress under the base of a foundation. p. 261

Vol. 4, no. 7, July 1956
POZEMNI STAVBY
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

DVORAK, A.

Measurement of vibrations caused by blasting operations.

P. 543, (Geofysikalni Sbornik) Ceased publication: No. 36/60, 1956 (Published 1957)
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

DVORAK, A

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DVORAK, A. Pickling equipment. p. 350.

Vol. 6, no. 18, Sept 1956
MACHANISACE ZEMEDELSTVI
AGRICULTURE
Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

DVORAK, A.

Dynamic tests of foundation soils, p. 232. (Inzenyrske Stavby, Vol. 5, No. 5, May 1957, Praha, Czechoslovakia)

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

DVORAK, A.

"Flying under unfavorable atmospheric conditions."

p. 29 (Kridla Vlasti, No. 10, May 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 9, September 1958.

DVORAK, A.

"Dressing of mixed copper ores by combined leaching, cementation, and flotation."

CZECHOSLOVAK HEAVY INDUSTRY, Prague, Czechoslovakia, No. 4, 1959

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

Unclassified

DVORAK, A.

The large constructions of socialism in China; on the occasion of the tenth anniversary of the Chinese People's Republic. p. 412.

INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha, Czechoslovakia.
Vol. 7, no. 11, Nov. 1959

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

Uncl.

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Z/038/60/000/005/003/004
A201/A026

26.2211

AUTHOR: Dvořák, Alois

TITLE: ¹⁸The Problems of Corrosion of Construction Materials by Liquid Metals

PERIODICAL: Jaderná energie, 1960, No. 5, pp. 155 - 162

TEXT: The article presents a review of research results on the corrosion of construction materials by liquid metals, its characteristic effects, and the principal methods of its prevention. The fast-growing nuclear power industry is especially concerned with the corrosion by liquid metals, as certain liquid metals, e.g., sodium, NaK-alloy, eutectic Pb-Bi alloy, lead, bismuth, lithium and mercury offer themselves as excellent reactor coolants by their physical properties. The most important physical and nuclear properties of these metals are shown in Tables 1 and 2, respectively, based on References 1, 14 and 16. Laboratory tests so far revealed the following types of liquid metal corrosion: 1) Uniform corrosion due to simple dissolution (Fig. 1), Reference 2. 2) Formation of alloys of the liquid and solid metals (Figs. 2 and 3), Reference 3. 3) Intercrystalline disruption (Fig. 4), References 6 and 7. 4) Extraction corrosion, i.e., dissolution of just one component of the structural material, Refer-

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The Problems of Corrosion of Construction Materials by Liquid Metals

ence 8. 5) Corrosion due to the effects of impurities contained in liquid metals, References 1 and 9. The most important factors influencing the corrosion process in a given system are the following: 1) Overall thermal conditions of the entire circulation system, i.e., the raising of the operation temperature, cyclic variations of the operation temperature, and the heat gradient of the circulation system. 2) The amount of impurities in liquid metals. 3) The flow-speed of liquid metals. 4) The number and variety of materials simultaneously attacked by the liquid metal. 5) Concurrent mechanical stresses of the structural material. The most important of these factors is the temperature, as the solubility of solid metals in liquid metals, and the diffusion speed increase with increasing temperature. In addition to the increasing corrosion speed, elevated temperatures also stimulate the formation of a specific type of corrosion; e.g., the higher the temperature of liquid sodium the greater the tendency toward formation of intercrystalline disruption of austenitic stainless steels. Also, the greater the cyclic temperature variations, the more extensive is the corrosive disruption with all other conditions remaining the same. The speed and progress of corrosion disruption are further influenced by the difference of tem-

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peratures between the hot and cool loops of the heat exchange system. It has been established that the speed of iron dissolution in mercury is strongly dependent on this temperature difference, while this dependence is negligible for the dissolution of iron in sodium (Ref. 1). The temperature gradient is responsible for the so-called mass transport, which is an accompanying effect of corrosion processes in liquid metal environments. The construction material is dissolved in the hot part of the system and the solution in liquid metal flows to the cooler part of the system, the temperature drop causing oversaturation of the solution. This, in turn, stimulates the formation of crystal nuclei from which originate the growth and deposition of solid metal particles within the system (Fig. 5). The speed of corrosive disruption is frequently influenced by the contents of impurities in liquid metals. Thus, oxygen content is responsible for the aggressiveness of liquid sodium to most materials and, at higher concentrations, provokes the dangerous intercrystalline corrosion. In this respect, stainless austenitic steels are more susceptible than ferrite steels (Ref. 1). The influence of oxygen contents on the speed of corrosive disruption is shown in Table 3, based on Reference 10. The flow speed of liquid metals asserts itself especially when the construction materials have already been damaged by

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corrosion. It then accelerates the corrosion speed mainly by its mass transport, erosion and cavitation effects. This is a case of combined corrosion and mechanical influences (Ref. 11). It was established that the flow speed has no appreciable effects when it remains below about 3 m/sec for bismuth, lead and mercury, and below about 8 m/sec for sodium and Na-K alloy. When several different materials are attacked simultaneously by liquid metals, a combined effect of selective extraction corrosion and mass transport may take place. As it was established in a test with a molybdenum specimen placed in a nickel system with liquid sodium, dissolved nickel was carried away and deposited on the surface of the molybdenum specimen resulting in the formation of a Ni-Mo intermetallic compound and solid solution. Mechanical stress may also contribute to the acceleration of corrosion processes. It was found that extraction corrosion of stainless austenitic steels by liquid Pb-Bi alloy proceeds the faster, the greater is the tensile stress applied to the specimen by external forces. Mechanical stress accelerates corrosion especially when the atom diffusion within the attacked metal is the governing factor of the corrosion speed, since it increases the diffusion speed and thus accelerates corrosion (Ref. 12). The most detrimental ef-

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facts of corrosion are the following: decrease of the cross section of stressed parts; deterioration of mechanical properties, especially tensile strength and ductility, of construction materials by selective intercrystalline corrosion; structural changes of surface layers (transformation of austenite into ferrite, carburization, formation of intermetallic compounds, etc); growth of solid metal crystals in the form of dendrites on the inner walls of pipes (Fig. 5); formation of compact metallic "stoppers" (Fig. 6) (Ref. 4); radioactive contamination of the heat exchange system by the transport of eroded active material (Ref. 13); and finally, the so-called "spontaneous welding" (Ref. 10) of two metallic parts immersed in alkaline liquid metals. The determination of corrosion resistance of the various construction materials is still a major problem. Static tests have proven inadequate, since they are performed under ideal conditions (perfect sealing against atmospheric oxygen) and, in addition, fully neglect the complex effects of liquid metal flow. Corrosion tests with rotating specimens immersed in molten metal approximate the actual operating conditions more closely. Figure 7 shows a testing equipment of this type on which corrosion tests of 4 rotating specimens can be performed simultaneously (Ref. 17). Each specimen has its own vessel with molten metal, with argon atmosphere above the surface

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sealed off by mercury. However, even these tests neglect such decisive factors as the mass transport and temperature gradient. Most appropriate, therefore, are laboratory tests in flowing liquid metals. Equipment for such tests is shown in Figure 8, based on Reference 10. Since research into the problems of corrosion by liquid metals is still in its beginnings, the only available methods of checking it consist of a proper choice of construction materials including adequate surface treatment and processing of the corrosive medium. Table 4 based on Reference 10 indicates the resistance of specific materials to corrosion by certain liquid metals, facilitating a proper choice of materials. In addition to this, however, a number of additional factors have to be considered, such as the effects of "external" attacks by other media (atmospheric oxygen, water, etc), properties of construction materials at raised temperatures, fabrication feasibility (piping, fixtures, weldability), and the nuclear properties. The aggressiveness of corrosive media (liquid metals), on the other hand, can be reduced by refining sodium to a high degree of purity and by maintaining this purity during operation; by admixtures of certain additives (e.g., Ca) to reduce the effects of oxygen in sodium; in liquid bismuth and Pb-Bi alloy, by ad-

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The Problems of Corrosion of Construction Materials by Liquid Metals

dition of inhibitors (e.g., Zr and Ti), which form protective coatings on the base metal surfaces. (Edited by M. Pašek.) There are 7 photographs, 1 figure, 4 tables and 17 references: 5 Czech, 5 Soviet and 7 English.

ASSOCIATION: Státní výzkumný ústav ochrany materiálu G.V. Akimova (G.V. Akimov
State Research Institute of Material Protection) in Prague

Card 7/7

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36740
Z/032/62/012/001/002/007
E073/E435

AUTHOR: Dvořák, A.

TITLE: Influence of mechanical stresses on the corrosion of steels in the liquid alloy of lead with bismuth

PERIODICAL: Strojírnoství, v.12, no.1, 1962, 39-43

TEXT: To elucidate the influence of mechanical stresses on the corrosion of steel which is in contact with liquid alloys at high temperatures, corrosion tests under stress were carried out on the following two types of constructional steels, which had a high resistance to corrosion and good mechanical properties at elevated temperatures: 18-8 Ti stabilized Cr-Ni steel (ČSN 17246.1); refractory steel containing 5% Cr and 0.4% Mo (ČSN 17102.6). The chemical compositions (%) of these steels were as follows:

	C	Mn	Si	Cr	Ni	Ti	Mo
Steel 17246	0.04	0.24	0.05	17.0	10.9	0.70	-
" 17102	0.16	0.40	0.33	5.0	-	-	0.38

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Influence of

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E073/E435

The steel 17 246 was tested after austenization, whilst the steel 17 102 was tested after being heat treated to a tensile strength of 70 kg/mm². The corrosive medium was the eutectic alloy of 44.5% Pb + 55.5% Bi; in addition to traces of impurities of Al, Fe, Mg and Ti, the alloy contained 0.2% Ag and 0.03% Cu [Abstracter's note: The total composition is in excess of 100%]. No corrosion inhibitors were used. However, 0.15% Mg was added to act as a wetting agent. The test set up contained a hot and a cold branch, so as to create a driving force for producing a slow flow of the corrosive medium. After a slow flow (a few mm/min), the type and extent of corrosion was evaluated from polished sections. The tests were carried out at 500°C for durations of 2000 hours (steel 17 246.1) and for 1000 hours (steel 17 102.6). Stresses between 1.5 and 18 kg/mm² were applied. The results indicate that tensile stresses accelerate considerably failure of austenitic 18-8 type stainless steels in the tested medium, the maximum depth of penetration of the corrosion increases

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Influence of

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E073/E335

from 20 μ to 40 μ on increasing the load from 3 to 18 kg/mm² and the corresponding increase in the rate of corrosion is from 0.09 to 0.18 mm/year. A similar increase in the rate of corrosion was observed for the steel 17 102. These results show that the corrosion-resistance of materials intended for mechanically-stressed components of heat-exchangers should be tested under stress since corrosion tests alone do not provide a correct picture of the likely service life of the tested materials. There are 10 figures and 2 tables.

ASSOCIATION: SVÚOM, Prague

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Card 3/3

DVORAK, Alois

The problem of corrosion by liquid metals. Jaderna energie
6 no.5:155-162 My '60.

1. Statni vyzkumny ustav ochrany materialu G.V.Akimova, Praha.

DVORAK, Antonin

Processing of zinc concentrates. Rudy 10 no.7:Suppl.:Prace
vyzk ust no.6:37-38 J1 '62.

1. Ustav pro vyzkum rud, Praha.

DVORAK, Arnost

Active tectonic zones. Cas min geol 8 no.3:233-243 JI '63.

DVORAK, A., inz. dr.

Seismic effects of explosive blasts Pt.1. Stavivo 42 no.11:427-430
N '64.

1. Geologicky pruzkum National Enterprise, Prague.

DVORAK, A., inz. dr.

Seismic effects of the detonation of explosives. Pt. 2. Stavivo 12
no.12:464-467 D '64.

1. Geologicky pruzkum National Enterprise, Prague.

L 38413-66

ACC NR: AT6016648 (N) SOURCE CODE: CZ/2512/64/012/000/0225/0241

AUTHOR: Dvorak, Arnost

41
B+1

ORG: Geological Survey, Prague (Geologische Erkundung)

TITLE: Tests made to determine the intensity of explosion-caused vibrations

SOURCE: Ceskoslovenska akademie ved. Geofysikalni ustav. Geofysikalni sbornik, v. 12, 1964. Prague, 1965. Prace, no. 196-214

TOPIC TAGS: electrodynamic sensor, blast, tensometer, vibration measurement, vibration effect/ B5h electrodynamic sensor, B5 sub. z electrdynamic sensor, DS-01 electrodynamic sensor

ABSTRACT: The author describes a series of tests related to his earlier works on the seismic effect of explosions on ordinary brick buildings. Systematic tests with a constant charge of 20 kg have shown shorter distances, while tests maintained at the same distance required an increase in the 25 kg charge. Tests were continued until damage was done to the brickwork. The measurements were made with a new electro-inductive sensor, the Hottinger B 2/25 with a range of ± 25 mm. Direct

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measurements of the vibration rate were carried out with the Hottinger B5h and Hottinger B5, electrodynamic sensors. Acceleration of vibrations was likewise measured with the Czech DS-01 sensor equipped with a differentiator. Deformations of the brickwork were measured directly with steel-tape tensometers, developed by the author, and with a mechanical Cambridge tensometer. The procedure for amplifying the equipment and the preliminary intensity of the vibrations is tentatively estimated. Formerly tests were usually made in neogenic clay. The current tests are made in the same medium, but in one case, the clay contained layers of water-saturated clayey sands with the ground water less than 1 meter below the surface. In another case, cavities caused due to coal mining appeared in the subsurface stratum. In the first case, the seismic effects ranged from 1/2 to 1 point above normal; in the second, they were approximately the same number of points below normal. A series of tests was also carried out with charges placed in solid rock. In this rock the vibration frequency is always higher than in soil, and, as a result, the vibration rate increases likewise. In this situation the high rate of propagation of elastic

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waves is advantageous, and less damage is done to buildings than when they are constructed on an earth foundation. Finally, in one case, measurements were made of chambered shots with an explosive charge of 115 and 160 kg. Concerning the blast index other conditions being fulfilled, it was determined that, a 16% increase or decrease of the charge did not effect considerable changes in the values obtained. The author also explains that the limits chosen for the discussion of the extent of damage to buildings on the basis of the vibration rate set by 20 kg charges are also valid for charges of approximately 1000 kg. The author then demonstrates the correlation between the extent of damage, the weight of the charge, and its distance from the building. Less severe damage is likely in the case of charges exceeding 5000 kg and at distances of more than 1000 m, owing to the greater dispersion and absorption of seismic energy. Orig. art. has: 12 figures. [GC]

SUB CODE: 17/ SUBM DATE: 14Mar64/ ORIG REF: 004/ SOV REF: none/
OTH REF: 003

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DVORAK, ANTONIN

L 41519-65 ARG/ZEO-2/ENG(j)/EWT(d)/FBD/FSS-2/ENG(r)/EWT(1)/FBO/EMP(c)/EWT(c)/
 EWT(a)/FS(v)-3/EPR(c)/EFC(k)-2/ENG(s)-2/EMP(1)/EMP(f)/ENG(v)/EMP(c)/EMP(v)/EWA(1)/
 EPR/EMP(j)/T-2/ENG(a)-2/EMP(h)/EPA(bb)-2/EFC(c)-2/EED-2/ENG(c)/FCS(k)/EMP(b)/
 AM405110 PL-4/Pw-4/Pk-4/Pn-4/BOOK EXPLOITATION PI-4/Ph-4/Pac-2/Ps-4/Pf-4/163
 Po-4/Pe-5/Pq-4/Pac-4/Fr-4 IJP(c) AST/TT/AM/DD/RA/GH/BC/WH 141
 Barvir, Miroslav, (Engineer); Benes, Konrad, (Professor, Doctor); Bouska, Jiri, (141
 (Doctor); Bradil, Ivo, (Graduate in Philosophy); Ceplecha, Zdenek, (Candidate of 811
 Physical and Mathematical Sciences); Cadr, Milan, (Doctor); Dolzal, Vladimir, (141
 (Doctor); Dvorak, Antonin, (Candidate of Medical Sciences); Dvorak, Josef, (Doctor);
 Guth, Vladimir, (Candidate of Medical Sciences, Doctent, Doctor); Horak, Zdenek,
 (Doctor of Physical and Mathematical Sciences, Corresponding Member of the
 Czechoslovak Academy of Sciences, Professor, Doctor); Hospodar, Jan, (Doctor of
 Physical and Mathematical Sciences, Doctor); Kleczek, Jozip, (Doctor); Klest,
 Emil, (Candidate of Physical and Mathematical Sciences); Kolodovsky, Milan; Koral,
 Vladimir (Doctor); Kopecky, Miloslav, (Candidate of Legal Sciences); Krivsky,
 Ladislav, (Candidate of Physical and Mathematical Sciences); Kviz, Zdenek, (Can-
 didate of Physical and Mathematical Sciences); Ledvina, Milan, (Engineer); Halcik,
 Vladimir, (Doctor); Moravek, Milan, (Candidate of Medical Sciences); Mracek,
 Jaroslav, (Candidate of Medical Sciences, Engineer); Mracek, Jiri, (Candidate of
 Technical Sciences); Neuzil, Ludek, (Doctor); Novotny, Zdenek, (Candidate of
 Physical and Mathematical Sciences); Novotny, Zdenek, (Doctor); Pernegr, Jaroslav,
 (Doctor); Candidate of Physical and Mathematical Sciences; Panek, Rudolf, Professor,
 Doctor, Engineer); Pipal, Miloslav, (Doctor of Technical Sciences, Corresponding
 member, of the Czechoslovak Academy of Sciences); Plavec, Miroslav, (Doctor);
 Pokorny, Zdenek, (Candidate of Physical and Mathematical Sciences, Doctent, Doctor);

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Ruml, Vladimir, (Candidate of Medical Sciences, Doctor); Sadil, Josef, (Doctor of Physiological Sciences); Sehnal, Ladislav; Stverak, Jiri, (Doctor); Svatka, Zdenek, (Doctor); Tuma, Jaroslav, (Candidate of Physical and Mathematical Sciences, Doctor); Tybl, VACLAV, (Docent, Engineer); Ulehla, Ivan, (Candidate of Technical Sciences, Professor, Doctor); Valnicek, Eoris, (Candidate of Physical and Mathematical Sciences, Doctor); Vanysek, Vladimír, (Candidate of Physical and Mathematical Sciences, Docent, Doctor); Vinsak, Marian, (Candidate of Physical and Mathematical Sciences; Doctor); Voda, Miloslav, (Engineer)

Principles of astronautics (Zalady kosmonautiky) Prague, Orbis, 1964. 445 p. illus., biblio. 5000 copies printed.

TOPIC TAGS: cosmonautics, rocket, satellite, space flight, ²missile ¹⁵

PURPOSE AND COVERAGE: This publication is a popular scientific reference book for people working in cosmonautics. The book presents a survey of cosmonautics and space flight up to 1 June 1963.

TABLE OF CONTENTS:

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DVORAK, BENESOVA.

Waste water from the production of synthetic casings. p. 341.

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

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

Uncl.

Dvorak, B.

M ✓ Vitamin B₁₂ B. Dvorak (IV Intern klin. Dvornik)
D Casopis Lékařů Československa 1958 7:148-150
isolation and synthesis of vitamin B₁₂
between I, folic acid, thymine, and ...

JILEK, M. Technicka spoluprace: DVORAK, B.

Presence of C-reactive protein in some dermatoses. Cesk. dermat.
39 no.4:249-255 J1'64

I. I. dermatovenerologicka klinika fakulty vseobecneho lekarstvi
KU [Karlovy university] v Praze; prednosta : prof. dr. J. Konopik,
DrSc.

DVORAK, B.

"Filtrating ponds, the constant problem of carp culture.", p. 13, (SEPORNIK,
Vol. 26, #1/2, Feb. 1953, Czechoslovakia)

SC: Monthly List of East European Accessions, Vol. 2, #8, Library of
Congress, August 1953, Uncl.