

KAZAR, Gyorgy, dr. VOLCZ, Jozsef, dr.

Injuries in adolescence treated in an outpatient clinic.
Nepegeszsugugy 45 no.5:186-187 My'64

1. Kozlemeny a VIII. ker. Szanto Kovacs J. u.-i Rendelointezet
(Igazgato: Galcsik, Boldizsar, dr.) kozponti baleseti ambu-
lanciajarol).

L 22586-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6012727

SOURCE CODE: UR/0136/66/000/004/0067/0070

AUTHOR: Kolchin, O. P.; Sumarokova, N. V.; Vol'dman, M. A.

ORG: none

TITLE: Kinetics of the combined carbothermic reduction of niobium and tungsten

SOURCE: Tsvetnyye metally, no 4, 1966, pp 67-70

TOPIC TAGS: vacuum furnace, chemical reduction, niobium, tungsten, niobium compound/
/VVPS-10A type vacuum furnace

ABSTRACT: This is a continuation of a previous investigation (O. P. Kolchin et al. Tsvetnyye metally, 1964, no 7) with the difference that it deals with a detailed investigation of the kinetics of the combined carbothermic reduction of Nb and W from the mixtures of the oxides and carbides of Nb and alloy elements at various temperatures, the degree of reduction being determined according to the change in the C content of specimens following their heating in a VVPS-10A type vacuum furnace. In the reduction products the W content was determined by the photolorimetric thiocyanate method, correct to 3-5% (rel.); the Nb content, according to weight gain when heating the specimen in air; and the C content, by the volumetric method. It was found that in the presence of W the degree of the reduction of Nb₂O₅+5NbC at 1200 and

Card 1/2

UDC: 669.293'27.094.2

Card 2/2 BLG

CZECHOSLOVAKIA

VOLDAN, B.

No affiliation given

Bratislava, Farmaceuticky obzor, No 1 [Jan] 1967, pp 38-44

"Some methods of treating plague during epidemics in the past. Part 1."

CZECHOSLOVAKIA

VOLDAN, B.

No affiliation given

Bratislava, Farmaceuticky obzor, No 2 [Feb] 1967, pp 77-84

"Some methods for handling epidemics of plague in the past. Part 2."

Voldan, B.

FECAK, B.; GEORCH, D.; VOLDAN, B.

CSSR

Dept of Galenic Pharmacy and dept. of biochemistry and microbiology of the
Pharmaceutical Faculty of Comenius University, Bratislava (katedra galenickej
farmacie a Katedra biochemie a mikrobiologie Farmaceutickej fakulty UK v
Bratislave), LO-KUNZ, Bratislava (for all)

Bratislava, Farmaceuticky Obzor, No 1, 1963; pp 11-20

"Some Data on the Conservation of Ophthalmological Preparations"

(3)

CZECHOSLOVAKIA

GEORCH, D; FECAK, B; VOLDAN, B.

1. Chair of Galenic Pharmacy of the Pharmaceutical Faculty UK (Katedra galenickej farmacie Farmaceutickej fakulty UK), Bratislava; 2. Chair of Biochemistry and Microbiology of the Pharmaceutical Faculty UK (Katedra biochemie a mikrobiologie Farmaceutickej fakulty UK), Bratislava

Bratislava, Farmaceuticky obzor, No 2, 1963, pp 58-62

"On the Question of the Conservation of Φ Ophthalmological Preparations."

CZECHOSLOVAKIA

GEORCH, D; FECAK, B; VOLDAN, B.

1. Chair of Galenic Pharmacy (Katedra galenickej farmacie), Bratislava; 2. Chair of Biochemistry and Microbiology of the Pharmaceutical Faculty of UK (Katedra biochemie a mikrobiologie Farmaceutickej fakulty UK), Bratislava

Bratislava, Farmaceuticky obzor, No 4, 1963, pp 157-162

"~~For~~ Possibilities of Use of Septonex ~~XXX~~ as a Conservation Means in the Preparation of Collyrium."

VCLDAN, J.

Electric inductivity of glass and of molten rock.

p. 139. (Veda a Vyzkum v Prumyslu Sklarskem. No. 1, 1956, Praha, Czechoslovakia)

Monthly Index of East European Accessions (MEME) II. Vol. 7, no. 2,
February 1958

VOLDAN, JAN

Czechoslovakia /Chemical Technology. Chemical Products I-12
and Their Application

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31549

Author : Voldan Jan

Title : Effect of Oxidative and Reducing Fusion on
Properties of Cast Stoneware.

Orig Pub: Sklar a keramik, 1956, 6, No 11, 264-270

Abstract: Study of properties of experimental cast articles
made from eight varieties of acidic and basic
rocks of Czechoslovakia (melaphyre, amphibolite
basanite, nephelilite, diabase, etc.), produced
under conditions of oxidative (OF) and reducing
fusion (RF), in a laboratory furnace heated with

Card 1/4

Czechoslovakia /Chemical Technology. Chemical Products I-12
and Their Application

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31549

city gas. The fusions were conducted at 1350-1400° for 2-2.5 hours. To provide the conditions of OF 10% NH_4NO_3 were added to the batch, 1-2% graphite, or 2-5% coke, were added for a RF, while neutral fusion (NF) were conducted without any addition to the batch. The cast specimens were cooled slowly in an electric furnace heated at 600°. Chemical analysis showed that the $\text{FeO}:\text{Fe}_2\text{O}_3$ ratio is 2.15-7.40 in RF specimens, 0.5-1.0 in OF, and about 1.0 in NF specimens. Differential thermal analysis revealed a most clearly manifested reaction of Fe_3O_4 -formation and crystallization of pyroxenes in RF specimens.

Card 2/4

Czechoslovakia /Chemical Technology. Chemical Products I-12
and Their Application

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31549

On annealing of the specimens at 830-840° for 24 hours, greatest deformation and compression of the surface layer was observed in RF specimens, which indicates their tendency to undergo secondary crystallization. The RF specimens show also a higher coefficient of thermal expansion, considerably greater resistance to abrasion, higher electric conductivity, hardness and chemical stability to the action of HCl, their σ compression is 35-65% higher than that of OF specimens. The high crystallization capacity of RF specimens was noted (about Fe_3O_4 nuclei a rapid crystallization of pyroxenes takes place) to which the author attributes, essentially, the improved

Card 3/4

Czechoslovakia /Chemical Technology. Chemical Products I-12
and Their Application

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31549

properties of the specimens. As a result of the
study a RF of casting stoneware is considered
as being the best technological solution.

Card 4/4

COUNTRY : CZECHOSLOVAKIA R
CATEGORY : Chemical Technology. Chemical Products and
Their Uses. Part 2. Ceramics. Glass. Binding*
ABS. JOUR. : RZKhis., No. 1 1960, No. 1935
AUTHOR : Voldan, J.; Zahradnik, L.
INST. : Central Institute of Geology
TITLE : Use of Differential Thermal Analysis in the
Study of Crystallization of Fused Melaphyres
ORIG. PUB. : Sb. Ustredn. ustavu geol. Odd. geol., 1957
(1958), 24, No 1, 113-128
ABSTRACT : The process of crystallization of volcanic
melaphyre glass in Lomnice and Dolni Kalne
was studied. During heating, magnetite (740-
780°), monoclinic pyroxene (885°) and plagi-
oclase (966°) crystallize successively. Fusion
of the separated minerals takes place at a
temperature >1110°. The minerals obtained
*Materials. Concrete. Glass
CARD: 1/2

VOLDAN, J.; ZAHRADNIK, L.

"Use of differential thermal analysis in the investigation of the crystallization of melted melaphyre"

Sbornik. Oddil geologicky. Praha, Czechoslovakia. Vol. 24, no. 1, 1957 (published 1958)

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

VOLDAN, J.

"Recrystallization laws of melted rocks. p. 97."

SILIKATY. Praha, Czechoslovakia. Vol. 3, no. 2, 1959.

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

COUNTRY : Czechoslovakia
CATEGORY : H-13
ABS. JOUR. : RZKhim., No. 21 1959, No. 75559
AUTHOR : Voldan, J.
NOTE : Not given
TITLE : Surface Phenomena in Glass in the Light of Modern Physicochemical Methods
ORIG. PUB. : Sklar a Keramik, 9, No 1, 16-20 (1959)
ABSTRACT : A survey of work done on surface phenomena in glass (ion exchange, adsorption of various ions and its dependence on temperature, pH, and composition of the glass, catalytic phenomena, corrosion of the surface layer and its mechanism, diffusion of ions in glass) and of the methods used in their investigation with special emphasis on the application of tracer methods. The bibliography lists 26 titles.
V. Berenfel'd

CARD: 1/1

VOLDAN, J.

Differential thermal analysis of medium acid melted rocks. p. 125.
(SILIKATY, Vol. 1, No. 2, 1957, Praha, Czechoslovakia)

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

VOLDAN, J.

Use of isotopes in the glass industry and related branches. p.170.
(Sklar A Kermik, Vol. 7, No. 6, June 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

VOLDAN, J.; PALECEK, M.

Effect of the temperature, concentration, and duration of the reagent on the chemical endurance of melting rocks.

p. 297 (Silikaty) Vol. 1, no. 3, 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

YOLDAN, Jan, RNDr. CSc.

Secondary crystallization of fused rocks. Sklar a keramik 14
no. 7:207 31 '64.

1. State Institute of Glass Research, Hradec Kralove.

VOLDAN, J.

Study on the basic raw material for sintered basalt.

P. 53 (Vodni Hospodarstvi) Vol. 5, No. 10, Oct. 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, NO. 1, JAN. 1958

VOLDAN, J. : PALECEK, M.

Chemical durability of melted rocks; laboratory experiments.

P. 79 (Vodni Hospodarstvi) Vol. 5, No. 10, Oct. 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, NO. 1, JAN. 1958

VCLDAN, J.

Some Czech phonolites as raw material for glass, Pt. 2, p. 270,
SKLAR A KERAMIK (Ministerstvo lehkého průmyslu) Praha, Vol. 4,
No. 10, Oct. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1956

VOLDAN, J.

"Phenomena appearing on the glass surface from the point of view of modern physical-chemical methods." P. 16.

SKLAR A KERAMIK. (Ministerstvo lehkeho prumyslu). Praha, Czechoslovakia, Vol. 9, No. 1, Jan. 1959.

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

VOLDAN, J.

Electric properties and constants of glass. p. 34. XIAR KERAMIK.
(Ministerstvo lehkeho prumyslu) Praha. Vol. 5, no. 11, Nov. 1955.

SOURCE: East European Access ions List, Vol. 5, no. 9, September 1956

VOLDAN, J.

Electric properties and constants of glass. (To be contd.) p. 15.

SKLAR A KERAMIK

Vol. 6, no. 1, Jan. 1956

Czechoslovakia

Source: EAST EUROPEAN LISTS

Vol. 5, no. 7

July 1956

VOLDAN, JAN

Czechoslovakia/Electricity - Dielectrics, G-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34988

Author: Voldan, Jan

Institution: Vyz. Ustav, Gradec-Kralove, Czechoslovakia

Title: Electric Properties of Glass

Original

Periodical: Sklar a keramik, 1956, 6, No 2, 34-38; Czech

Abstract: Brief survey of electrical properties of glass

Card 1/1

VOLDAN, Jan, RNDr.

Crystallization rate of main phases separated from the
basalt melt. Sklar a keramik 13 no.13:291-295 N'63.

1. Statni vyzkumny ustav sklarsky, Hradec Kralove.

Chemical stability of natural rocks. A. J. Voldin and Milan Palesky (Inst. Hydrogeology, Czech.). *Travaux de l'Institut de Géologie, Prague*, 1956, 103 (English summary). Methods were discussed, and slight modifications: DIN 12111, DIN 2110, and DIN 12112. More than 100 samples of natural (I), crystalline (II), and glassy (III) rocks (basalt, diabase, etc.) were tested toward H₂O, acids (20% HCl, 1:1 mix. of H₂SO₄ and H₂CO₃), and bases (1:1 mix. of H₂O and bases regardless of the state of the material). The resistance toward H₂O and bases regardless of the state of the material was highest for II, lower for I, and lowest for III. The resistance toward acids was highest for II, lower for I, and lowest for III. The resistance of the rock had a pronounced influence upon the resistance which was reduced, especially for acid media, where the amt. of corrosion increased with increasing acidity.

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 class research
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 The analy-
 cal terms
 were used
 (I), and
 tested as to
 and bases
 tested rocks
 of the state
 toward
 III. The
 upon
 acid media
 acidity.

Alexei B. Koltsev

VOLDAN, JAN

CZECHOSLOVAKIA / Chemical Technology. Chemical Products H
and Their Application. Ceramics. Glass. Binding
Materials. Concretes.

Abs Jour: Ref Zhur-Khimiya, No 19, 1958, 65159

Author : Voldan Jan

Inst : -

Title : A Few Examples of the Utilization of Radioisotopes
in the Glass Industry and in Related Fields

Orig Pub: Sklar a keramik, 1957, 7, No 6, 170-175

Abstract: In a series of examples, the possibility is shown
of using radioactive isotopes (RI) for the solu-
tion of some technological problems. Thus, for
example, the use of RI of sodium, calcium, barium,
and phosphorus permits an investigation of the
flow of the glass mass in fire baths, the degree
of homogenization, the period of melting, et cetera.

Card 1/3

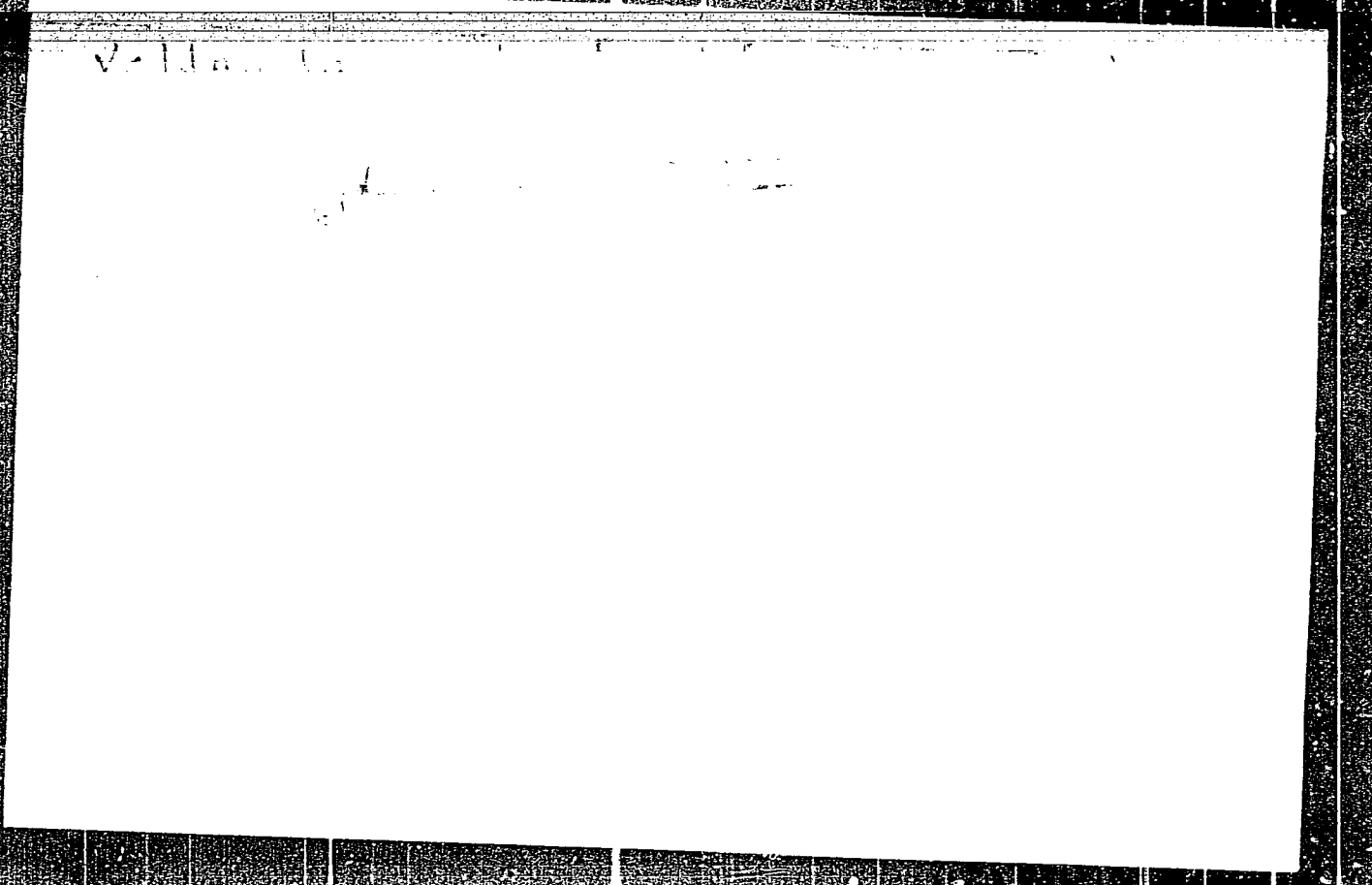
CZECHOSLOVAKIA / Chemical Technology. Chemical Products H
and Their Application. Ceramics. Glass. Binding
Materials. Concretes.

Abs Jour: Ref Zhur-Khimiya, No 19, 1958, 65159

Abstract: ness of applied layers of glaze, enamel, or other
coatings, as well as for the removal of electro-
static charges that appear because of the friction
of those and other particles on one another.

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VALUABLE

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APPROVED FOR RELEASE: 03/14/2001

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VOLDAN, J.

Selection of rocks for petrologic purposes. (to be contd.) p. 14.
SKLAR A KERAMIK, Praha, Vol. 5, no. 1, Jan. 19 5.

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

L 22088-65 EWP(s)/EWT(m)/EWP(b) Pg-4 WH

ACCESSION NR: AP4044480

Z/ 013/64/000/008/0220/0223

AUTHOR: Voldan, Jan (Doctor of natural sciences, candidate of sciences)

TITLE: Controlled crystallization of fused cast materials

SOURCE: Sklar a keramik, no. 8, 1964, 220-223

TOPIC TAGS: controlled crystallization, fusion casting, glass manufacture, glass additive, fluorine additive, nucleation

ABSTRACT: Products from molten rock, which served originally as a replacement for scarce metals, are now important refractory and chemically resistant materials. Only their unsatisfactory and irregular mechanical properties prevent their more frequent use. In the present paper, the theory of fusion castings, their manufacture on a laboratory and commercial scale and their properties are discussed. Most of the work done up to now has been within the Soviet block. As nucleation and crystallization additives for basalt melts, TiO_2 , MnO_2 and chromite are generally used. These melts are described, and it is pointed out that these products are of better quality and more homogeneous than products from basalt only. However, surface crystallization cannot be avoided and the mechanical properties, while improved, still do not equal those of vitreous melts. The author presumes that the high Fe content (12-14%) of basalts

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L 23088-65

ACCESSION NR: AP4044480

is not beneficial. Therefore, attention is drawn to materials with a lower Fe content and to more acidic rocks, like phonolite and granite. Since these have a very high melting point and an undesirably viscous consistency, cheap materials like calcite and dolomite are added to lower the viscosity and to improve the nucleation and crystallization properties. As nucleation additives, fluorine compounds (CaF_2 , Na_3AlF_6 or Na_2SiF_6) are used. Many patents mention fluorine as a nucleation agent. During the production of these melts, ground ingredients have to be used, and basalt can be used in a minor amount. Precautions have to be taken to minimize the iron content of the melt, e.g. by pelletizing the iron materials and by using a magnetic separator at 1300°C for 30 seconds. The melt is then poured into metal molds. The melt is crystallized at 1300°C or above, in metal molds. Crystallization starts at 700-800°C. Castings are placed in ovens when they are below 700°C, to produce good nucleation, and are then heated slowly to 850-900°C to achieve fine grain crystallization. If heated above 900°C, deformation could occur. As the main ingredients, 50-75% phonolite and granite are used. The mechanical and physical properties of these materials are presented. These materials cannot yet replace basalt-based products, but should find some economical uses. Further studies will be undertaken in this direction. Orig. art. has: 8 figures.

Card 2/3

L 23088-65

ACCESSION NR: AP4044480

ASSOCIATION: Statni vyzkumny ustav - Kladsko, Hladec Kralove (State Glass Research Institute)

SUBMITTED: 00

ENCLOSURE: 00

SUB CODE: MT

NO REF SOV: 007

CHECK: 1

Card 3/3

VOLDAN, Jan, RNDr. CSc.

Oriented crystallization of fused rocks. Sklar a keramik 14, no. 2:
220-223 Ag '64.

1. State Institute of Glass Research, Hradec Kralove.

VOLDAN, M.

Toxicity and glyceimic activity of guanidine derivatives. Cesk. farm.
1 no.8:434-439 Sept 1952. (CJML 23:2)

1. Of the State Institute for Control of Pharmaceutical Preparations.

VOLDAN, M

VOLDAN, M.

Biologic standardization of insulin preparations. *Cesk. farm.* 2
no.10-11:360-363 Nov 1953. (CJML 25:5)

1, Of the Collective of Biochemical Laboratories.

VOLDAN, M.

CZECHOSLOVAKIA

M. TRNKOVA and M. VOLDAN, State Drug Control Institute (Statni ustav pro kontrolu leziv,) Prague.

"Determination of Amino-Acids and Mixtures Thereof by Conductometric Titration."

Prague, Ceskoslovenska Farmacie, Vol 12, No 4, May 63; pp 162-166.

Abstract [English summary modified]: Conductometric analysis of amino acids and some of their mixtures and salts in aqueous media was found practicable and gives comparable results to those of other common procedures used. Weak bases such as pyridine, triethylamine and ammonia were found suitable, the latter being usually the best. Ten graphs, 2 tables; 5 Czech, 2 Soviet, and 27 Western references.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860420014-5

VOLDAN, M

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and
Their Application, Part 3. - Drugs, Vitamins, Anti-
biotics.

H-17

Abs Jour : Ref Zhur - Khim., No 14, 1958, No 47817.

Author : M. Voldan.

Inst :

Title : To the Pharmacopeian Article on Protamine-Zinc-Insulin.

Orig Pub: Coskosl. farmac., 1957, 6, No. 7, 386 - 388

Abstract : Two methods of biological evaluation of protamine-Zn-
-insulin were studied; the method with the weakening of
protein bonds is recommended based on the presented results
and the present situation in the industry.

Card 1/1

TRNKOVA, M.; VOLDAN, M.

Biological evaluation of the effectiveness of globin-Zn-insulin
injection. Cesk. farm. 13 no.5:245-247 Je'64

1. Statni ustav pro kontrolu leci, Praha.

TRNKOVA, M.; VOLDAN, M.

Determination of amino acids and their mixtures by conductometric titration. Cesk. farm. 12 no.4:182-188 My '63.

1. Statni ustav pro kontrolu leziv, Praha.
(AMINO ACIDS) (CHEMISTRY, PHARMACEUTICAL)

VOLDAN, M.

Use of chromatography and polarography in determination of insulin solutions for injection. Cesk. farm. 4 no.8:407-409 Oct 55.

1. Ze Statniho ustavu pro kontrolu leziv.

(INSULIN

inject. solution, evaluation by chromatography & polarography)

(CHROMATOGRAPHY

of insulin solution for inject.)

(POLAROGRAPHY

of insulin solution for inject.)

VOLDAN, M.

Determination of free insulin in supernatant fluid of protamine-zinc-insulin suspensions for injections. Cesk.farm. 4 no.3:125-126
Apr 55.

1. Ze Statního ustavu pro kontrolu leci v Praze.
(INSULIN, determination,
free insulin in supernatant fluid of protamine-zinc-insulin suspensions for injections)

VOLDANOVA, A;VOLDAN, V.

Antihistaminics in the local treatment of eczema with special
reference to antihistamin Spofa. Cesk. derm. 27 no. 3-4:167-174
June 1952. (LLML 22:3)

1. Of the Dermatological Department (Head--Docent J. Obrtel,
M. D.) of State District Hospital, Bulovka.

VOLDAN, V.

Xanthoma diabeticorum. Cas. lek. cesk. 89 no. 37:1032-1034
15 Sept. 1950. (CLML 20:1)

1. Of the Skin Department of the State District Hospital
in Prague VII (Bulovce) (Head--Docent Jan Obrtel, M. D.).

VOLDANOVA, A;VOLDAN, V.

Antihistaminics in the local treatment of eczema with special
reference to antihistamin Spofa. Cesk. derm. 27 no. 3-4:167-174
June 1952. (CLML 22:3)

1. Of the Dermatological Department (Head--Docent J. Obrtel,
M. D.) of State District Hospital, Bulovka.

VOLDANOVA, A.

Experience from a study trip to dermatological and venerological laboratories in the USSR. Cesk. dermat. 40 no.6:412-417 D '65.

1. Katedra dermato-venerologie UDL v Praze (vedouci doc. dr. A. Kuta, CSc.).

VOLDANOVA, A.

Epidemiological status of gonorrhoea in the world. Cesk. dermat.
39 no.6:394-397 D 1964

1. Lescetne preventivni odbor ministerstva zdravotnictvi v
Praze.

OBRTEL, J.; VOLDANOVA, A.

Concept of the discipline of dermatovenereology. Cesk.derm. 38
no.6:377-387 D '63.

*

VOLDANOVA, A.

Staphylococcal anatoxin in chronic skin diseases of staphylococcal etiology. Cesk. dermat. 39 no. 5:315-319 S '64.

1. Dermato-venerologicka klinicka zakladna UDL v Praze (vedouci MUDr. A. Kuta, CSc.).

VOLDANOVA, Anna

Role of antiseptis in local treatment of leg uncers. Cesk. dermat. 36
no.7:449-451 '61.

1. Dermatovenerologicka klinicka zakladna UDL v Praze Vedouci doc.
MUDr. Jan Obrtel, Dr. Sc.

(VARICOSE ULCER ther)

OBROUBENI

VOLDAKOVA, ED [affiliation not given].

"Sixtieth birthday of Professor Dr J. OBRTTEL"

Prague, Casopis Lekaru Ceskych, Vol CII, No 32/33, 16 August
1963, p 920.

Abstract: A short biography of Jan OBRTTEL, MD, Dr of Sciences,
professor at the Second Dermatological Clinic (II. kozni klinika)
at the Faculty of General Medicine (Fakulta vseobecneho lekarstvi),
Charles university, Prague, and director of the Dermatological and
Venereological Chair at the Institute for the Postgraduate Train-
ing of Physicians (Ustav pro doskolovani lekaru) in Prague, born
30 June 1903.

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2050

CHERNOV, V.A., prof.; VOLDARSKAYA, S.M.; GAVRILOVA, A.I.

Antineoplastic activity and toxicity of some ethylene imides of phosphoric and phosphinic acids in connection with their structure. Farm. i toks. 28 no.1:70-73 Ja-F '65.

(MIRA 18:12)

1. Laboratoriya eksperimental'noy khimioterapii opukholey (rukovoditel' - prof. V.A.Chernov) Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta, Moskva. Submitted November 17, 1963.

VOLDARSKIY, Lev Iosifovich

[Practical manual on the collection and procurement of wild medicinal plants] Prakticheskoe rukovodstvo po sboru i zgotovke dikorastushchikh lekarstvennykh rastenii. Moskva, Medgiz, 1959. 278 p. (MIRA 13:7)
(BOTANY, MEDICAL)

VOLDAVETS, V.I.

Passive and active protection during catastrophic volcanic
eruptions. *Biul. Vulk. sta. no. 28:79-91 '59.* (MIRA 13:12)
(Volcanoes)

CHERKASOV, A.S.; VOLDAYKINA, K.G.

Absorption and fluorescence of vinyl anthracenes and changes
in the configuration of molecules in the excited state. ~~AN SSSR~~
Ser. fiz. 27 no.5:628-633 My '63. (MIRA 16:6)

(Anthracene--Spectra)

S/190/63/005/001/011/020
B101/B186

AUTHORS: Cherkasov, A. S., Voldaykina, K. G.

TITLE: Spectroscopic study of the interaction between anthracene derivatives and monomers during polymerization. II. Interaction of anthracene with styrene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 5, no. 1, 1963, 79-86

TEXT: Anthracene was dissolved in styrene and was polymerized, both with and without benzoyl peroxide, in order to explain the behavior of luminescing plastics. The time of heating was varied between 1 and 150 hrs, the temperature was kept between 80 and 154^oC, and the concentration of anthracene was changed between 0.5 and 15.2%. Low-molecular products were removed from the polymer by reprecipitation, and its absorption and fluorescence spectra were recorded. The existence of a weak absorption band in the region of long waves (26900 cm⁻¹) indicated hydrogen substitution in the meso-position of anthracene by styrene or polystyrene. Its fluorescence spectrum also corresponded to that of
Card 1/3

Spectroscopic study of the ...

S/190/63/005/001/011/020
B101/B186

monosubstituted anthracene. The conversion of 5% anthracene into styrene anthracene or polystyrene anthracene was estimated from the intensity of absorption band. The polymer contained 20 - 28% of the anthracene addition, whatever the polymerization conditions. Polymerization of

anthracene dissolved in styrene at 144°C showed that during the first 4 hrs the ratio polymerization degree : degree of anthracene conversion remained constant at 0.5 independently of the initial anthracene concentration (0.5 - 2.4%). The synthesis of the anthracene-styrene

adduct was reached after 150 hrs at 120°C, and after 4 hrs at 200 - 210°C.

A crystalline substance, m. p. 95 - 96.5°C, was obtained, whose molecular weight corresponded to an adduct consisting of 1 molecule anthracene and 1 molecule styrene. Its absorption spectrum confirmed the addition of styrene in the 9, 10 positions of anthracene, which again proves a diene synthesis. Heating to 260°C caused decomposition. The absorption and fluorescence spectra of the substance crystallized by cooling (m. p.

193 - 200°C) corresponded to those of anthracene. There are 4 figures and 1 table.

Card 2/3

Spectroscopic study of the ...

S/190/63/005/001/011/020
B101/B186

SUBMITTED: July 18, 1961

✓

Card 3/3

CHERKASOV, A.S.; VOLDAYKINA, K.G.

Spectral investigation of the interaction between anthracene derivatives and monomers in the process of polymerization.
Part 2: Reaction of anthracene with styrene. Vysokom.soed.
5 no.1:79-87 Ja '63. (MIRA 16:1)
(Anthracene) (Styrene) (Polymerization)

CHERKASOV, A.S.; VOLDAYKINA, K.G.

Spectral study of the products obtained from the polymerization of
styrene with 9-vinyanthracene additions. Vysokom.sped. 3 no.4:570-
576 Ap '61. (Anthracene) (Styrene) (MIRA 14:4)

VOL. 4 - 3 - 9/30

51-4 -3-9/30

AUTHORS: Cherkasov, A.S., Tishchenko, G.A. and Voldaykina, E.G.

TITLE: Photoluminescent Characteristics and Relative Intensities of Scintillations of Plastic Scintillators Containing Anthracene Derivatives.
(O fotolyuminestsentnykh kharakteristikakh i otnositel'nykh intensivnostyakh stsintillyatsiy plasticheskikh stsintillyatorov s proizvodnymi antratsena.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.3, pp. 344-347 (USSR)

ABSTRACT: Anthracene was one of the first substances used to make plastic scintillators (Ref.1). The authors studied scintillators which contained various derivatives of anthracene. These scintillators were prepared by polymerization of styrene in which the studied substance (2% by weight) was dissolved. The relative magnitudes of scintillation pulses under the action of γ -rays and the fluorescence spectra, quantum yields of fluorescence and durations of the excited state of the scintillators were studied. Samples were prepared and their scintillation efficiency was measured at the Institute of High-Molecular Compounds of the Academy of Sciences

Card 1/4

51-4-3-9/30

Photoluminescent Characteristics and Relative Intensities of Scintillations of Plastic Scintillators Containing Anthracene Derivatives.

of the USSR in M.M. Koton's laboratory. Fluorescence was excited by mercury lines of about 365 mμ wavelength. Quantum yields were found from the ratios of areas bounded by fluorescence spectra. Durations of the excited state were measured by means of a fluorometer as described in Ref.3. The relative magnitudes of scintillation pulses obtained using various derivatives of anthracene are given in the table on p.345. For derivatives with alkyl, aryl, methoxy-, acetoxy- and acetylamino-groups in meso-positions of the anthracene nucleus or alkyl substituents in α- and β-positions of anthracene an increase of the pulse heights is observed compared with plastic scintillators containing anthracene itself. The most effective are diaryl derivatives of anthracene, particularly 9,10-diphenyl and 9,10-di-(n-anisyl)-anthracene (their efficiency is of the same order as that of scintillators with terphenyl). Introduction of methyl groups into phenyl rings or into m- and n-positions of diphenylanthracene lowers the

Card 2/4

52-4 -3-9/30

--- Photoluminescent Characteristics and Relative Intensities of Scintillations of Plastic Scintillators Containing Anthracene Derivatives.

relative pulse height, compared with the most effective compounds. From the relative quantum yields and the known value of the absolute quantum yield of fluorescence of anthracene dissolved in benzene, the absolute quantum yields of fluorescence of scintillators with anthracene derivatives were calculated. In almost all compounds studied here the absolute quantum yields are high, and in the case of diaryl derivatives they are close to unity (see table on p.345). The authors conclude that of the studied anthracene derivatives the best scintillators can be obtained using mesoaryl derivatives of anthracene, whose scintillations are 2.5-3 times more intense than anthracene scintillations. The same scintillators have also the shortest duration of the excited state (of the order of 10^{-8} sec). The high relative intensity of scintillations of mesoaryl derivatives of anthracene is due to their high quantum yields of fluorescence, nearness of the fluorescence

Card 3/4

51-4-3-9/30

Photoluminescent Characteristics and Relative Intensities of
Scintillations of Plastic Scintillators Containing Anthracene
Derivatives.

maximum to the maximum of photomultiplier intensity
and good transparency for their own fluorescence.
There is 1 table, 1 figure and 4 references, of which
2 are Soviet, 1 American and 1 English.

ASSOCIATION: State Optics Institute imeni S.I. Vavilov.
(Gosudarstvennyy opticheskiy institut im. S.I. Vavilova.)

SUBMITTED: June 21, 1957.

1. Scintillation counters--Materials--Properties 2. Anthracenes
--Derivatives--Applications

Card 4/4

CHERKASOV, A.S.; VOLDAYKINA, K.G.

Copolymerization of 2-vinyl-9,10-diphenylanthracene with styrene.
Vysokom.soed. 7 no.1:175-179 Ja '65.

(MIRA 18:5)

VOLDAYKINA, K. G.
USSR/Physical Chemistry, Photo Chemistry, Radiation Chemistry,
Theory of Photographic Process.

B-10

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22450.

Author : A. S. Cherkasov, V. A. Molchanov, T. M. Vember, K. G. Voldaykina.

Inst : Not given

Title : Fluorescence duration of anthracene mesoderivatives.

Orig Pub : Dokl. A.N. USSR, 1956, 109, No 2, 292-294.

Abstract : Average durations of fluorescences (τ_e) of anthracene solutions (A) and 46 of its mesoderivatives (alkyl-, aryl-, halogeno-amino-, acetyl-nitro-, methoxy- and a series of others replaced by (A) are measured on a phase-fluorometer in C_2H_5OH at indoor temperature. Values of τ_e for the indicated A-derivatives lie in the range of $1.0-12.0 \cdot 10^{-9}$ sec. Values of τ_e divided by the amount of the absolute quantum yield of substances of fluorescence (η) measured in the same conditions, are compared with the maximum span of life of the 1st excited state of τ_a , obtained from the area of the long wave band of absorption of the A derivative solutions. It is shown, that the values τ_e/η and τ_a coincide better if the computation of τ_a will be effectuated on the basis of the formula proposed by

Card 1/2

-151-

USSR/Physical Chemistry, Photo Chemistry, Radiation Chemistry,
Theory of Photographic Process.

B-10

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22450.

Forster (Forster T. Fluoreszenz organischer Verbindungen,
Gottingen 1951, S.158) than by usual formula of Kravz-Einstein.
 τ_a and τ_e , (η concurs well in case of derivatives at which
 η is greater than at Λ). The diminishing of the value of τ ,
 $\tau_e/\eta > \tau_a$ in case of substitutes is explained in this case by
the presence of damping, not related to the decrease of τ .

Card 2/2

-152-

VOLDAYKINA, K.G.

CHEKASSOV, A.S.; FISHCHENKO, G.A.; VOLDAYKINA, K.G.

Photoluminescence characteristics and relative scintillation
intensities of plastic scintillators with anthracene derivatives.
Opt. 1 spektr. 4 no.3:344-347 Mr '58. (MIRA 11:4)

1. Gosudarstvennyy opticheskiy institut im. S.I. Vavilova.
(Luminescence) (Anthracene)

... of 47 meso derivatives

CHERKASOV, A.S.; MOLCHANOV, V.A.; VEMBER, T.M.; VOLDAYKINA, K.G.

Duration of fluorescence for mesoderivatatives of anthracene. Dokl.
AN SSSR 109 no.2:292-294 J1 '56. (MLRA 9110)

1. Predstavleno akademikom A.N. Tereninym.
(Anthracene) (Fluorescence)

L 10160-63

EPF(c)/EWT(m)/BDS--ASD--Pr-4--

RM/MAY

ACCESSION NR: AP3000314

S/0048/63/027/005/0628/0633

AUTHOR: Cherkasov, A. S.; Voldaykina, K. G.

59

TITLE: Absorption and fluorescence of vinyl anthracenes and change of the molecular configuration due to excitation [Report: Eleventh Conference on Luminescence held at Minsk 10-15 Sept. 1962]

SOURCE: Izvestiya AN SSSR. Seriya fizicheskaya, v. 27, no. 5, 1963, 628-633

TOPIC TAGS: methyl anthracenes, vinyl anthracenes, anthracene, fluorescence, molecular absorption

ABSTRACT: As a result of investigation (Cherkasov, A. S., Doklady AN SSSR, 125, 848, 1951) of anthracene derivatives with an alkyl group in the meso position in the anthracene nucleus it was found that such substituents have a minor effect on the absorption and fluorescence spectra of anthracene, namely, produce a shift of both spectra to the side of lower frequencies. It was deemed of interest to see how the spectra would be affected by changes in the position of the substitute; accordingly, there were synthesized and investigated 9-vinyl, 1-vinyl and 2-vinyl

Card 1/2

L 10160-63

ACCESSION NR: AP3000314

anthracenes, steric hinderance in which differs. The spectra of the vinyl derivatives are compared with the spectra of the corresponding methyl derivatives. The effect of the substituenmts is attributed to enhanced interaction of the pi electrons of the substituent group with the pi electrons of the anthracene nucleus. It is shown that in the case of 2-vinyl anthracene in alcohol solutions there occurs cis-trans isomer conversion under the influence not only of temperature but also excitation. This is substantiated by the shift of the fluorescence spectrum as a result of addition of a quenching agent to the alcohol solution. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH

NR REF SOV: 002

OTHER: 004

Card 2/2

LAVRENENKO, K.D., red.; U.S. ENERGY, D.D., 1962.

[Power engineering of the world and its prospective development; reports of the Sixth World Power Conference held in Melbourne in 1962] *Energetika: Sostoyaniye i perspektivy ee razvitiia; doklady VI Mirovoi energeticheskoi konferentsii v g. Mel'burne v 1962 g. pod obsheoi red. K.D. Lavrenenko.* Moskva, Izd-vo "Energiia," 1964. 255 p.

(SAR 1717)

1. World Power Conference. 6th, Melbourne, 1962.

Vol'dbyue, F.

USSR/Inorganic Chemistry. Complex Compounds. C

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26487.

Author : Vol'dbyue, F.

Inst :

Title : Method of Continuous Changes.

Orig Pub : Uspekhi khimii, 1956, 25, No. 10,
1294 - 1302

Abstract : See RZhKhim, 1956, 644.

Card 1/1

VOL'DBYUE, F. [Woldbye, F.]

Method of continuous variations (from "Acta Chem.Scand.", 9,299,
1955). Usp.khim.25 no.10:1294-1302 0 '56. (MLBA 9:12)
(Solution (Chemistry)) (Compounds, Complex)

USSR/Cultivated Plants - Grains.

11.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44037

Author : Krasheninnikov, N.N., Kargal'tseva, A.F?, Vol'de, M.S.

Inst : Fruit and Vegetable Institute imeni I.V. Michurin

Title : The Effect of the Pre-Sowing Compacting of the Soil on the Growth of the Secondary Roots and on the Stems of Spring Wheat.

Orig Pub : Tr. Plodoovoshchn. in-ta im. I.V. Michurina, 1956, 9, 233-294

Abstract : The compacting of the soil by rolling secures and increase in the yield on an average by 2-3 centners/ha. Rolling improves the conditions of seed germination and the initial growth of the plants. It also increases the number of secondary roots and of the stems. The most effective

Card 1/2

USSR/Cultivated Plains - Grains.

14.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44037

rolling of the soil is that which reaches to the depth
of the embedded seeds (5-6 cm).

Card 2/2

- 23 -

JANES, Hans; KAASIK, Paul; PUUSEPP, Eugen; VOLDEK, Aleksander; VORK, H.,
prof., retsenzent; OORN, F., inzh.; retsenzent; ABO, L., red.;
VAHTRE, I., tekhn. red.

[Electric machinery] Elektrimasinad [By] H.Janes ja teised.
Tallinn, Eesti riiklik kirjastus, 1961. 647 p. (MIRA 15:5)
(Electric generators) (Electric transformers)

VOL'DEK, A. I.

23181 Induktsionnyy regulyator s soyedineniyem obmotok statora i potora v
obshchiy treugol'nik (Abtoreferat). Elektrichestvo, 1949, №. 7, c. 55-57.

SO: LETOPIS' NO. 31, 1949.

VOL'DEK, A. I.

"Study of Leakage in Electric Machines," (Issledovaniye Rasseyaniya v elektricheskikh mashinakh) Elektrichestvo, No 7, 1950.

LPI (Leningrad Polytechnic Institute)
Dissertation for Candidate's Degree

VOL'DEK, A. I., Docent

USSR/Electricity - Motors, Induction Dec 51

"The Effect of an Uneven Air Gap Upon the Magnetic Field of an Induction Machine," Docent A. I. Vol'dek, Cand Tech Sci, Tallin Polytech Inst

"Elektrichestvo" No 12, pp 40-46

The uneven air gap made by the teeth of the stator and rotor gives rise to groups of harmonics of the magnetic field which are not present with a uniform gap. Develops a method for calcg the fields of the higher harmonics. Gives curves

201R80

USSR/Electricity - Motors, Induction (Contd) Dec 51

for detg the permeance of the air gap based on the soln of the problem of the magnetic field in the region of the slots by the method of conformal representation. Submitted 14 May 51.

201R80

VOL'DEK, A. I.

235T39

USSR/Electricity - Transformers

Aug 52

"Equivalent Circuit of a Transformer and Its Parameters," Docent A. I. Vol'dek, Cand. Tech Sci, Tallin Polytech Inst

"Elektrichestvo" No 8, pp 21-55

Author analyzes equiv circuit of a transformer taking into account iron losses at a transformation ratio not equal to the ratio of number of turns. He shows that such circuits are characterized by neg effective resistances and inductances and examines means for compensation of errors in instrument (current) transformers. Submitted 10 Jan 51.

235T39

VOL'DEK, A. I.

Electrical Engineering Abstracts
May 1954
Machines

2
①
1890. Influence of the non-uniformity of the airgap on the differential leakage of an asynchronous machine.
A. I. VOL'DEK. *Elektrichestvo*, 1953, No. 8, 32-8. In Russian.

In normal operating conditions of an induction machine, practically all the higher harmonics of stator and rotor fields set up leakage fluxes which have to be considered in the calculation of the so-called differential leakage inductances. Only in machines with short-circuited rotor does some damping of the higher harmonics of the stator field take place. Owing to the comparatively small width of the air gap the differential leakage inductances are relatively large and represent 25-40% of the total leakage inductance of the machine. This requires a fairly accurate calculation of the leakage inductances. This problem has so far been solved only by assuming a uniform air gap (infinitely small slot openings). The author proves that the differential leakage reactance for non-uniform air gaps may be determined by introducing a correction in the expression of the differential leakage coefficient derived for a uniform air gap. Formulae and curves for determining this correction factor are presented.

B. F. KRAUS

KOMAR, Yevgeniy Grigor'yevich; VOL'DEK, A.I., redaktor; ZABRODINA, A.A.,
tekhnicheskiiy redaktor.

[Problems in designing turbogenerators] Voprosy proektirovaniia turbo-
generatorov. Moskva, Gos. energ. izd-vo, 1955. 352 p. (MIRA 8:6)
(Electric generators)

VOL'DEK, A.I.

VOL'DEK, A.I. "Investigation of the Inductivity of Leakage of the Frontal Portions of Windings on AC Electrical Machinery." Min Higher Education USSR. Leningrad Polytechnic Institute M.I. Kalinin. Tallin, 1956. (Dissertation for the Degree of Doctor in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

KOSTENKO, Mikhail Poliyevktovich; PIOTROVSKIY, Lyudvik Mar'yanovich;
VOL'DEK, A.I., red.; ZABRODINA, A.A., tekhn. red.

[Electric machinery] Elektricheskie mashiny. Pt.2. [Alternating
current machinery] Mashiny peremennogo toka. 1958. 651 p. Moskva,
Gos. energ. izd-vo (MIRA 11:8)
(Electric machinery--Alternating current)

SOV/144-58-12-2/19

AUTHOR: Vol'dek, A.I., Dr.Tech.Sci., Docent, in charge of the
Chair

TITLE: The Magnetic Field of the Inductors in Linear Electro-
magnetic Pumps

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Elektromekhanika, 1958, Nr 12, pp 14-20 (USSR)

ABSTRACT: A considerable amount of work has been done at the Tallin Polytechnical Institute on the investigation of electro-magnetic induction pumps. Some of the results of this work are published in the paper; these deal primarily with the theory of the induction pumps. A flat linear induction pump is first considered (shown diagrammatically in Fig 1). The inductor cores 1 are constructed from electrical-steel sheets. The three-phase winding 2 is situated in the slots at both the cores. The gap 3 having a rectangular cross-section is made of a suitable metal or alloy. The magnetic field in the gap of the pump is evaluated under the following assumptions: (1) the dimensions of the inductor in the plane xoy are infinite; (2) the surfaces of the inductor contain no slots; (3) the permeability of the cores is infinite; and ✓

Card 1/4

SOV/144-58-12-2/19

The Magnetic Field of the Inductors in Linear Electromagnetic Pumps

(4) the permeability in the gap is μ_0 . The magnetic field can be evaluated from the scalar magnetic potential φ which satisfies Eq (1). If it is assumed that φ is in the form of the second equation on p 16, where F_m is the amplitude of φ , and τ is the pole ratio, the amplitude F_m is given by the fifth equation on p 16. The final expression for the amplitude is in the form:

$$F_m = - \frac{B_0}{\mu_0 a} \cdot \frac{shaz}{ch \frac{a\delta}{2}} \quad (2)$$

where B is the field at $z = \delta/2$ (see Fig 1). The field in the centre of the gap is given by Eq (3). The so-called reduction coefficient k_n , which determines the ratio of the field at the boundary to the field in the centre, is given by Eq (5). The magnetising force F in both the inductor windings (per one pole) is expressed by Eq (6), where k''_δ is expressed by Eq (7). The coefficients k_n and k''_δ are plotted in Fig 3 as a function of δ/τ . A cylindrical linear electromagnetic pump is shown in Fig 2. Here, 1 and 4 represent the external and the internal ferromagnetic cores of the

Card 2/4

SOV/144-58-12-2/19

The Magnetic Field of the Inductors in Linear Electromagnetic Pumps inductor, 2 is a three-phase winding situated in the slots along the axis of the pump, and 3 is the gap of the pump having an annular cross-section. The air gap of the pump can be represented as shown in Fig 5. The magnetic potential of the system can be evaluated from Eq (12). The amplitude of the potential can be found from the first equation on p 19. The solution of this is represented by:

$$F_m = - \frac{B_0}{\mu_0 a} \cdot \frac{K_0(ar_2) \cdot I_0(ar) - I_0(ar_2) \cdot K_0(ar)}{K_0(ar_2) \cdot I_1(ar_1) + I_0(ar_2) \cdot K_1(ar_1)} \quad (13)$$

where I_1 and K_1 are modified Bessel functions of the first and second kind of the first order, respectively. The reduction coefficient is now given by Eq (15) and the air gap coefficient k''_0 is expressed by Eq (16). The values of the reduction coefficient k_n for the pump are shown in Fig 6, while the coefficient k''_0 is plotted in Fig 7.

Card 3/4

There are 7 figures and 9 references, 8 of which are Soviet and 1 is English. One of the Soviet references is translated from English. ✓

The Magnetic Field of the Inductors in Linear Electromagnetic Pumps
SOV/144-58-12-2/19
ASSOCIATION: Kafedra elektrifikatsii promyshlennykh predpriyatiy,
Tallinskiy politekhnicheskiy institut
Card 4/4 (Chair of Electrification of Industrial Undertakings,
Tallin Polytechnical Institute) ✓
SUBMITTED: December 28, 1958

Вопросы Магнетизма, Oldrodin, M. I. Dzin'kova, P. M. ...
1959. (Problems of the Geophysics and Magnetism ...
maics. Works of the Conference on Magnetohydrodynamics,
Riga, 2-10 July 1958), Riga, 1959, 37 p.

The majority of the texts of the 55 conference reports and discussions
in reports are presented in the source in abridged form. Previously pub-
lished reports are included there as brief abstracts. Only the material
published there for the first time (abridged and unbridged) is as follows:

"Similarity Methods and Physical Modeling in the Study of Electro-
magnetic Processes in Liquid Metals," by I. M. Kirko, Riga, pp 211-210
Discussion on the Report by B. A. Frank-Shternik, Moscow, p 211.
Discussion on the Report by I. M. Kirko, Riga, pp 211-213
(Abstract of article, "Model of an Infinitely Long Channel With Liquid
Metal Contact in a Twisting Magnetic Field," by I. M. Kirko, Ia. Ya.
Kivinskii, A. A. Levin (Genova), and L. Ya. Ulanov, Riga, Library
Published in Magistral'nyi Kanal' Vody Sloby, Energetika, 1959, p 203,
is supplemented by a discussion of the article by I. M. Kirko, Riga,
pp 211-220)

"Principle of Modeling the Electrical Field of Electromagnetic Pumps
in an Electrolytic Bath and on Electrically Conductive Particles," by
M. A. G. Sviridov, Riga, pp 221-225 (Discussion of article by A. A. G. Sviridov,
Tallin, p 226)

(Abstract of article, "The Motion of a Sphere in a Viscous Conducting
Liquid Within a Longitudinal Magnetic Field," by A. M. Givitskiy, Riga,
p 227, is supplemented by discussion of the report by Ia. P. Galimov,
Moscow, pp 227-228.)

"Experimental Investigation of the Magnetohydrodynamic Phenomena
During the Dumping of the Oscillating Motion of Iron in a Tube," by
A. G. Sviridov and N. S. Koshunov, Riga, pp 233-235; discussion by
I. M. Kirko, Riga, and O. A. Leybman, Riga, p 236

"On the Behavior of Colloidal Ferro-magnetic Particles in a Hetero-
geneous Magnetic Field," by S. I. Yermolaev, Moscow (abstract), p 237
"Study of Magnetic Fields and Electromagnetic Processes in Linear
Induction Pumps," by A. M. Givitskiy, Tallin, pp 239-246

"Order of Basic Parameters of Induction Pumps in the Calculation of
Maximum Efficiency," by I. M. Kirko, Riga, pp 247-250; discussion of
report by Ya. M. Kozlov, Riga, p 251

"Optimum Utilization of Induction Pump Design," by L. G. Sviridov, Riga,
pp 253-260

"Experience in the Designing of Electromagnetic Pumps at the Institute
of Physics of the Academy of Sciences Latvian SSR," by P. S. Kivinskii,
Ya. Kivinskii, A. E. Mikol'son, and S. A. Osharov, Riga, pp 263-268;
Discussion of report by I. M. Kirko, Riga, p 269

"On the Use of Induction Pumps in Foundry Practice and the Metal-
lurgical Industry," by L. A. Verbe, Moscow, (abstract) p 271

"On Certain Problems in the Designing of Linear Induction Pumps,"
by A. P. Kozlov, Tallin, pp 273-277; discussion of the report by L. A.
Verbe, Moscow, pp 277-278

VOL'DEK, A.I.

VOL DEK 9 711

807/3762

ISSUE I BOOK REVOLUTIONS

Konferentsiya po magnetnoy gidrodinamike. M.g., 1960.
Voprosy magnetnoy gidrodinamiki i dinamiki plazmy; trady Konferentsii.
(Problems & Magnetohydrodynamics and Plasma Dynamics) Transactions of a
Conference) M.g., Izd-vo AN Latviiyob SSR, 1959. 343 p.
Errata ally inserted. 1,000 copies printed.

Sponsoring Agency: Akademiya nauk Latviiyob SSR, Institut fiziki.

Material Board: D.A. Frank-Kamenetskiy, Doctor of Physics and Mathematics,
Professor; A.I. Vol'pert, Doctor of Technical Sciences, Professor; I.M. Kirko,
Doctor of Physics and Mathematics; V.M. Vol'pert, Candidate of Physics and
Mathematics; P.O. Kaban, Candidate of Physics and Mathematics; Yu.M. Krut'ko;
and V.M. Kuvshinov.

Ed.: A. Serebrennik, Tech. Ed.: A. Klyavina

PURPOSE: This book is intended for physicists working in the field of magne-
tohydrodynamic and plasma dynamics.
CONTENTS: This volume contains the transactions of a conference held in Riga,
June 1959, on problems in applied and theoretical magnetohydrodynamics. The
subjects of the conference were the investigation of the basic theoretical prob-
lems and applied magnetohydrodynamics, establishing connections between the
people doing research in different branches of magnetohydrodynamics, and
promoting the participation of Soviet scientists in problems in applied
magnetohydrodynamics. Forty-two papers were read. Similar conferences
have been held regularly in the future; the next such conference is scheduled to
be held in Riga in June 1960. In this present collection of the transactions of
the conference, most of the papers and comments on papers are presented by the
authors themselves in an abridged form. The book is divided into two parts:
the first part deals with problems in theoretical magnetohydrodynamics and plasma
dynamics, and consists of 35 articles on such aspects of the problems as the appli-
cation of magnetohydrodynamics in astrophysics (D.A. Frank-Kamenetskiy), magne-
tohydrodynamics and the investigation of electromagnetic fields (A.I. Vol'pert),
acceleration of plasma in a magnetic field (G.M. Gol'dman and A.I. Okunov),
stability of sheet flows and magnetohydrodynamic (A.I. Abkhvizer). The second
part, consisting of 11 articles, deals with problems of experimental magne-
tohydrodynamics, including the application of physical simulation for investigation
of electromagnetic processes in liquid metals (I.M. Kirko) and the development
of electromagnetic pumps (P.O. Kaban), at the Institute of Physics of the
Academy of Sciences, Latvian SSR. Several articles are devoted to induction
pumps, electromagnetic crucibles, electromagnetic stirrers for molten metals,
and their application in the metallurgical industry including schematic
diagrams of their power-supply systems. References are given at the end of
most of the articles.

Literatskiy, L.V., Modeling the Electric Field of Electromagnetic Pumps in an Electrolytic Bath and with Electroconductive Paper	221
Vol'pert, A.I., Comments on the Paper	226
Gorditskiy, A.K., Movement of a Sphere in a Viscous Conducting Fluid in a Longitudinal Magnetic Field	227
Vol'pert, Ya.P., Comments on the Paper	227
Kuznetsov, Ya.K., Rotation of a Conducting Sphere in a Conducting Viscous Fluid in the Presence of a Magnetic Field	229
Gorbunov, G.Z., and Ye.M. Zhubovskiy, On the Stability of the Convective Motion of an Electrically Conducting Liquid Between Parallel Plates in a Magnetic Field	230
Vol'pert, A.I., Investigation of Magnetic Fields and Electromagnetic Processes in Linear Induction Pumps	239
Vol'pert, A.I., Certain Problems in Designing Linear Induction Pumps	273