L 10463-66 EWT(1)/EWT(m)/EPF(n)-2 IJP(c) WW/GG

ACC NR: AP6002046 SOURCE CODE: GE/0030/65/012/002/K085/K087

44,55 44,55 51 B

AUTHOR: Zdansky, K.; Sroubek, Z. 44,55

ORG: Institute of Radio Engineering and Electronics of the Czechoslovak Academy of Sciences, Prague

TITLE: Electron spin resonance of NO_3 in irradiated $NaNO_3$ 19,44,55

SOURCE: Physica status solidi, v. 12, no. 2, 1965, K85-K87

TOPIC TAGS: spin resonance, electron spin resonance, single crystal, irradiation 21,44,55

ABSTRACT: The EPR of $NaNO_3$ single crystals irradiated with x-rays (40 kv; 25 ma) for 1 to 2 hours was investigated. Pure $NaNO_3$ crystals were grown from aqueous solutions by slow evaporation at 30C. The spectra were measured at 77K with an x-band electron spin resonance spectrometer having a magnetic field modulation at about 900 kcps. The magnetic field was parallel and perpendicular to the rhombohedral [111] crystal axis. The intensity of the spectrum obtained corresponded to about 10^{17} species per cm^3. After short-time annealing at about 200K, followed by cooling to 77K, the spectrum of NO_3 disappeared completely. The EPR spectrum obtained was attributed to NO_3 for the following reasons: 1) The hyperfine interaction of the unpaired electron with the nitrogen nucleus ^{14}N was small. 2) The unpaired electron of planar or pyramidal axially symmetric NO_3 was in the nonbonding molecular orbital. This nonbonding molecular orbital was a linear combination of oxygen atomic orbitals only.

Card 1/2

L 10463-66

ACC NR: AP6002046

Consequently, the nitrogen hyperfine interaction given by the exchange polarization is zero or very small. The simplest interpretation of this spectrum is that NO_3^- loses an electron due to x-irradiation and thus is transformed into planar or pyramidal axially symmetric NO_3. Orig. art. has: 1 figure and 1 table. [JA]

SUB CODE: 20, 18 SUBM DATE: 18Oct65/ ORIG REF: 001/ OTH REF: 005/ ATD PRESS: 4167

HW

Card 2/2

L 45844-66 T/EWP(t)/ETI LJP(c) JD/JW/GG

ACC NR: AP6027755 SOURCE CODE: GE/0039/66/016/002/0405/0412

35
31
B

AUTHOR: Sroubek, Z.

ORG: Institute of Radio Engineering and Electronics, Czechoslovak Academy of Sciences, Prague

TITLE: On the theory of the superexchange interaction in ionic crystals: $KNiF_3$

21

SOURCE: Physica status solidi, v. 16, no. 2, 1966, 405-412

TOPIC TAGS: ionic crystal, superexchange interaction, Heitler London theory

ABSTRACT: The authors study the superexchange interaction in ionic crystals, using the Heitler-London theory and with particular reference to $KNiF_3$. The generalized Heitler-London quantitative theory of covalency allows a detailed study to be made of the transfer of an electron from cation to cation and the transfer of two electrons from an anion to the cations. No further assumptions are made and the calculations are performed numerically. To overcome the difficulties with the ab initio calculations from atomic wave functions, the authors define some semi-empirical parameters and thus obtain simple expressions for antiferromagnetic energy stabilization. The antiferromagnetic superexchange constant given by these calculations is in good agreement with the experimental super-

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652810003-5"

POPIL'SKIY, R.Ya.; SROVA, G.A.

Conditions for producing cristobalite from quartz sand. Trudy MKHTI no.27:197-204 '59. (MIRA 15:6)
(Cristobalite)

BALITSKIY, S.A., kand. tekhn. nauk; SROYELOV, V.S., inzh.; SUSNOV, L.P.

Lithium chloride units for conditioning air. Vod. i san. tekh. no.2:3-9 F '64 (MIRA 18:2)

M

Country : CZECHOSLOVAKIA
Category: Cultivated Plants. Commercial. Oil-Bearing. Sugar-Bearing.

Abs Jour: RZhBiol., No 22, 1958, No 100411

Author : Srp, A.
Inst : -
Title : The Influence of Climatic Factors on the Yield of Hops.

Orig Pub: Chmelarstvi, 1958, 31, No 1, 12-13

Abstract: The entire world area under hops is concentrated approximately between 45-60° north latitude. The best hops are cultivated in regions situated in the zone of 50° northern latitude. Distribution of warmth during the period of vegetation has the greatest influence.

Card : 1/4

M-131

Abs Jour: RZhBiol., No 22, 1958, No 100411

The sum of temperatures in the area of Zhatets (Czechoslovakia) from the beginning of the vegetation to the harvesting of hops is 2000-2800°. Hops grow well in regions with mean annual temperature of 8°. A minimum temperature of 15° in the atmosphere and 13° in the soil is necessary for the growth of hops. A severe drop in the temperature in the middle of May produces a yellowing of the plants. A gradual rise in the temperature starting with March, and an increase in the mean monthly temperatures until July, are favorable for hops. The mean monthly temperature in August must be

Card : 2/4

approximately equal to that in June. A sharp rise in the temperature in March induces a furious growth in hops. During 1954-1956, the amount of precipitation in the period of vegetation was approximately the same. But the most favorable temperatures during March-September were in 1955. The yield of hops in 1957, under similar conditions of agricultural technique, was 62-120% more than in 1954 and 1956. Sunlight produces an influence chiefly on the quality of the cones. 713 hours of sunlight are required for hops in the period

COUNTRY : Czechoslovakia
CATEGORY : General Problems of Pathology. Tumors. Comparative Oncology. Human Neoplasms.

ABS. JOUR. : RZhBiol., No. 23 1958, No. 107133.

AUTHOR : Kantova, B.; Srp, B.

INST. : —

TITLE : A Case of Papillocarcinoma of the Urinary Bladder in the Course of Pregnancy.

ORIG. PUB. : Ceskosl.gynaekol., 1958, 23-37, No. 1-2, 31-34.

ABSTRACT : A case of papillocarcinoma of the urinary bladder in the course of pregnancy in a 39-year-old woman is described, being of interest from the point of view of differential diagnosis. Symptoms of chronic cystitis and of toxemia of pregnancy masked the manifestations of the tumor, which led to a late diagnosis. The patient died one year following cystectomy and bilateral ureterosigmoid anastomosis because of a recurrence of the tumor. Problems of the clinical picture and diagnosis in papillocarcinomas of the given

CARD: 1/2

U

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 23 1958, No. 107133

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : localization are discussed.

cont'd.

Card: 2/2

SRP, Bedrich, As. Dr.; KOTASEK, Alfred, Doc. Dr.

Effect of veratrine alkaloids on hemodynamics in toxemia of late pregnancy. Cesk. gyn. 22[37] no.1/2:112-117 Jan 58.

1. I. por. klinika KU, prednosta prof. Dr Karel Klaus. A. K., Praha 2, b'Apolinarska 18.

(PREGNANCY TOXEMIAS, ther.
veratrum alkaloids, eff. on hemodynamics (Cz))
(VERATRUM ALKALOIDS, ther. use
pregn. toxemia, eff. of hemodynamics (Cz))
(BLOOD PRESSURE, eff. of drugs on
veratrum alkaloids in ther. of pregn. toxemias(Cz))

BUDINSKY, J., CSc.; STIKSA, E.; SKRIVAN, J.; FABIANOVA, J.; SRP, B., CSc.

Neuroplegic obstetrical analgesia. Cesk. gyn. 27[41] no.5: 387-394 Je '62.

1. I. gyn.-por. klin. KU v Praze, prednosta prof. dr. K. Klaus, DrSc.
(ANESTHESIA OBTETRICAL) (HIBERNATION ARTIFICIAL)

SRP, B.; CERNY, J.; DRABKOVA, J.

On the problem of heart diseases in pregnancy. Cesk. gynek. 30 no.9:653-658 N '65.

1. I. gyn.-por. klin. fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. K. Klaus, DrSc.).

DRABKOVA, J.; HODR, J.; SRP, B.; CERNY, J.

The choice of anesthesia for pregnant cardiac patients. Cesk. gynek. 30 no.9:668-671 N '65.

1. Anesteziologicke oddeleni Krajskeho ustavu narodniho zdravi Stredoceskeho kraje v Praze (vedouci MUDr. J. Hodr) a I. por. klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. K. Klaus, DrSc.).

LOLEZAL, Zdenek; SRP, Emil

Conference of mining standardization specialists of the Permanent Coal Commission of the Council for Mutual Economic Assistance. Uhli 5 no.8:285 Ag '63.

SRP, E.

"State gas inspection activities."

PALIVA, Praha, Czechoslovakia, Vol. 39, No. 5, May 1959.

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

Unclassified.

VANURA, Tomas, inz.; SRP, Jaromir, inz.; JINDRA, Ladislav, inz.

Experience with the construction of an assembled reinforced concrete hall of unusual shape. Inz stavby 11 no.1:8-11 Ja '63.

1. Dopravostav, n.p., Bratislava, projekcni atelier

SRP, L.

Effect of visual perception on blood sugar level. Pediat. listy, Praha 8 no.5:266-268 Oct 1953. (CIML 25:5)

1. Of the Second Pediatric Clinic (Head--Prof. J. Brdlik, M.D.)

SRP, L.

Reaction of children to the environment of a hospital. Pediat. listy, Praha 8 no.5:290-292 Oct 1953. (CLML 25:5)

1. Of the Second Pediatric Clinic (Head--Prof. J. Brdlik, M.D.)

SRP, L.

Modifications in association spheres in sleep therapy of stammering. Cas. lek. cesk. 92 no.44:1215-1217 30 Oct 1953. (CLML 25:4)

1. Of the Second Pediatric Clinic (Head—Prof. J. Brdlik, M.D.)

SRP, L.; HRODEK, O.

Psychological problems in care for children with acute leukemia. Cesk. pediat. 17 no.4:305-311 Ap '62.

1. II detska klinika Karlovy university, prednosta prof. MUDr. J. Heustek.

(LEUKEMIA psychol)

ŠRP, Ladislav; LIČKO, Ladislav

Some psychological problems of sick children. Cesk. pediat. 17 no.7/8: 653-657 Ag '62.

1. II. detska klinika fakulty detskeho lekarstvi KU v Praze, prednosta prof. dr. J. Houstek II. detska klinika fakultni nemocnice v Bratislave, prednosta prof. dr. J. Michalicova.
(CHILD PSYCHOLOGY) (PEDIATRICS)

SRP, L.

The significance of the effect of environment in the limitation of movement. Cesk. pediat. 18 no.4:304-306 Ap '63.

1. II detska klinika fakulty detskeho lekarstvi KU v Praze, prednosta prof. dr. J. Houstek.
(MOVEMENT) (ENVIRONMENT) (PEDIATRICS)

SRP, B.

On the problem of the physiology of labor - a hemodynamic study.
Cesk. gyn. 28 no.3:145-151 Ap '63.

1. I gyn.-por. klin. fak. vseob. lek. KU v Praze, prednosta prof. dr. K. Klaus, DrSc.
(LABOR) (PLETHYSMOGRAPHY) (HEART FUNCTION TESTS)
(BLOOD PRESSURE) (PULSE) (PUERPERIUM)
(PHYSIOLOGY)

DOLEZAL, Zdenek; SRP, Emil

Meeting of the Standardization Group of the Permanent Coal Commission of the Council for Mutual Economic Assistance. Uhli 5 no.3:101-102 Mr '63.

1. Ministerstvo paliv.

SRPOVA, B.

5353. Simultaneous detection, identification and determination of secondary and tertiary alcohols on a micro scale. M. Jurečeк, O. Chládek, K. Chládková, M. Soudek and H. Smyrl. (Inst. Anal. Chem., High School Chem. Technol., Pardubice, Czechoslovakia). *Chem. Listy*, 1957, 51 (3), 448-451.—Alcohols can be converted by means of Lucas's reagent [(a) conc. HCl, (b) 136 g of anhyd $ZnCl_2$ in 105 g of conc. HCl] into the corresponding alkyl chlorides, which can be isolated and converted by reaction with thiourea into soluble alkylthiuronium chlorides which yield with Na 3,5-dinitrobenzoate an insol. addition product. This derivative can be identified by its m.p. and the nitro group can be determined by titration with $TiCl_3$. J. ŽÝKA.

CZECHOSLOVAKIA / Analytical Chemistry, Analysis of Organic Substances. E-3

Abst Jour : Ref. Zhur - Khimiya, No 2, 1958, 4350

Author: Yurechek, Khladek, Khladkova, Souchek, Srpova,

Title : Simultaneous detection, Indentification and Determination of Secondary and Tertiary Alcohols by a Micromethod.

Orig Pub : Chem. listy, 1957, 51, No. 3, 448-451.

Abstract : The alcohol under investigation is converted into the corresponding alkyl chloride by means of the Lucas reagent (conc. Hcl, sp. gr. 1.19 or the solution of 136 g. of anhydrous $ZnCl_2$ in 105 cc. conc. HCl). The separated alkyl chloride is converted with thioura (1) into a soluble alkyl thiuronium chloride. After Neutralization

Analysis of Organic Substances.

Abs Jour ; Ref Zhur - Khimiya No. 2, 1958, 4350

with CH_3COONa it is converted by the action of sodium 3,5-dinitrobenzoate [illegible] (11) into an insoluble alkyl thiuronium 3,5-dinitrobenzoate. The salt is recrystallyzed from C_2H_5OH solution and its nitro groups are determined by titration with an excess of approximately a .4N solution of $TiCl_3$, 0.05N solution of $NH_4Fe(SO_4)_2$ using NH_4SCN as indicator. A blank determination is required. The melting point of the derivative is determined at the same time. Int the reaction of alkyl chlorides with (1) or (11) the addition of KI is expedient. The method is not suitalbe for pentanol-3, 2,3-dimethyl pentanol-3, cyclohexanol and triphenylcarbinol.

PENKA, Miroslav; SRPOVA, Jirina

Contribution to the study of heterogeneity in the leaves of a spring wheat plant. Biologia plantarum 7 no.1:28-30 '65.

1. Chair of Forest Botany and Plant Ecology of the Faculty of Forestry of the Higher School of Agriculture, Brno, Zemedelska 3. Submitted May 19, 1964.

L 02247-67 ARG/ESS-2/EEC/EWP(c)/EWP(h) DE/WW
ACC NR: AP6020194 SOURCE CODE: YU/0009/65/000/006/0600/0610

AUTHOR: Sršen, Miljenko (Colonel)

ORG: none

TITLE: Certain problems of organization and joint action of field forces and territorial air defense

SOURCE: Vazduhoplovni glasnik, no. 6, 1965, 600-610

TOPIC TAGS: air defense system, air defense tactic, armed force organization

ABSTRACT: In connection with an earlier article by S. Roglić (VG br. 5/65), the author points out that Roglic discusses interesting questions in connection with air defense but does not deal with peculiarities encountered in smaller countries and small battlefield areas. Consequently, the topic is discussed from the viewpoint of smaller territories where territorial air defense may overlap the strategic combat zone. The problem of combat zone-territorial defense overlap involves the methods of organization of territorial air defense, and even more of the command structure, grouping, and joint operation of various types of units. Orig. art. has: 1 figure.

SUB CODE: / 15/ SUBM DATE: none
Card 1/1

SRSEN, S.

The Diesel-electric-suction dredger.

p. 25 (CHECHOSLOVAK HEAVY INDUSTRY) No. 7, 1956,
Prague, Czechoslovakia

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

SRSEN, STEFAN

SRSEN, Stefan, MUDr, as. det. klin. Kosice

Pediatrician's work at the obstetrical ward. Cesk. gyn. 19 no.4: 288-291 July 54.

(PEDIATRICS
pediatrician's work at obstetrical ward)

SRSEN, St

DEMANT, F., Doc., Dr.; NEUBAUER, Ed., doc., Dr.; SRSEN, St., as., Dr.; TISCHLER, V., as., Dr.;

Question of the internal environment of healthy newborn.
Cesk. pediat. 12 no.5-6:430-435 May-June 57.

1. Detska klinika lekarskej fakulty KU v Kosiciach (prednosta doc. Dr. F. Demant) a nefrologicke laboratorium internej kliniky (prednosta doc., Dr. F. Por).
(INFANT, NEWBORN, physiol.
internal environment (Cz))

DEMANT, F.; NEUBAUER, E.; SESEN, S.; TISCHLER, V.

Studies on formation of antidiuretic hormone in a normal newborn. Cesk. fysiol. 7 no.3:286-287 May 58.

1. Detska klinika LFUK, interna klinika LFUK v Kosiciach.
(VASOPRESSIN, in blood,
in newborn (Cz))
(INFANT, NEWBORN,
blood vasopressin content (Cz))

SRSEN, S.

A review of the clinical symptomatology of central nervous system damage in newborn infants. Cesk. pediat. 8 no.6:520-528 5 July 58.

1. Detska klinika LFUK v Kosicach, prednosta doc. Dr. F. Demant.
(CENTRAL NERVOUS SYSTEM, dis.
acquired & congen. in newborn inf. (Cz))
(INFANT, NEWBORN, dis.
CNS disord., acquired & congen. (Cz))

BARDOSOVA, G.; SRSEN, S.

Results of a prolonged follow-up of the development after perinatal injuries. Cesk.pediat.16 no.3:208-215 Mr '61.

1. Detska klinika lek. fakulty University P.J. Safarika v Kosiciach, prednosta prof. MUDr. F. Demant.
(BIRTH INJURY)

SRSEN,S.; FRIC,I.

Report on some congenital defects from material of the Obstetrical Department in Kosice during the period 1958-1962. Cesk.pediat. 19 no.3:198-203 Mr'64

Congenital cystic formations in the gastrointestinal tract. (Duplication of the gastrointestinal tract). Ibid.:220-222

1. Porodnicko-gynekologicka klinika Lekarskej fakulty UPJS v Kosiciach (prednosta: doc.dr.K.Poradovsky, CSc.) a Detska klinika Lekarskej fakulty UPJS v Kosiciach (prednosta:prof. dr. F.Demant).

SRSEN, S.

Analysis of cases with intracranial bleeding in newborn infants with special reference to maturity and prematurity. Bratisl. lek. listy 45 no.7:424-435 15 O '65.

1. Detska klinika Lek. fak. Univerzity P.J. Safarika v Kosiciach (veduci prof. MUDr. F. Demant).

SRUBAR, BOHUMIL

SURNAME, Given Names

2

Country: Czechoslovakia

(not given)

Academic Degrees:

Affiliation: Chair of Epizootic Diseases, Veterinary Faculty, Veterinary College (Katedra Epizootologie vet. fakulty VSZ)/Chief Jar. DRAZAN DVM/Brno; and Chair of Food Hygiene and Technology (katedra pro hygienu a technologii potravin) Chief Z. MATYAS DVM/ Brno

Source: Prague, Sbornik CSAZV Veterinarni Medicina, Vol 6(34), No 7, July 61; pp 529 536

Data: "Effectiveness of Chlortetracycline Aerosol in Pigs and Cattle"

DRAZAN, Jaroslav
SRUBAR, Bohumil
HOLEC, JAN

CZECHOSLOVAKIA

SRUBAR, B.; JIRANOVA, M.; Veterinary Faculty, College of Agriculture (Veterinarni Fakulta VSZ), Brno; Bioveta, National Enterprise (n.p.), Terezin.

"Contribution to the Study of Specific Colostral Immunity of Calves Born From Cows Vaccinated Against the Foot-and-Mouth Disease."

Prague, Veterinarni Medicina, Vol 11, No 5, May 66, pp 303 - 310

Abstract [Authors' English summary modified]: Transmission of immunity from cows to calves was studied in 42 cows and 34 calves. Vaccination using 20 ml of adsorbate vaccine caused a rise in the level of virus-neutralizing antibodies, maintained for about one year. After parturition the level of antibodies in the colostrum is higher than in blood serum of the cows; the high level lasts for 7 days. The antibodies are transmitted to calves only by the colostrum, and they can be found in the calves only after they drank the colostrum. High levels in the blood of the calves result in longer lasting immunization, when compared to low levels. 2 Tables, 7 Western, 1 Russian reference. (Manuscript received 30 Dec 65).

1/1

SRUBAR, J., inz.; PESAT, Valentin

Should we study? El tech obzor 53 no.11:Suppl:Zpravy 53 no.11: 242-243 '64.

1. Technical and Economic Information Department of the Vitkovicke zelezarny Klementa Gottwalda National Enterprise, Ostrava 31.

GRUNAR, I., ing., PESAT, V.

Follow continuously and systematically domestic and foreign technical literature. Uhli 6 no.10:360 O '64.

1. Technical and Economic Information Department of the Vitkovicke zelezarny Klementa Gottwalda National Enterprise, Ostrava.

SRUBASOVSKIY, G.; AYZENSHTEYN, I.

Integrated brigades. Avt.transp. 41 no.2:8-9 F '63.
(MIRA 16:2)
(Transportation, Automotive)

SRUBIENE, R.

Early antibacterial therapy of exposed children in the city of Kaunas and its reults. Sveik. apsaug. 9 no.3:33-36 Mr '64.

1. Kauno tuberkuliozes dispanserio vaiku skyrius.

GOL'DINOV, A.L.; LUKHOVITSKIY, V.I.; SRUBINSKAYA, G.Z.

Determination of water with the use of calcium hydride. Zhur.-anal.khim. 17 no.4:532-534 Jl '62. (MIRA 15:8)
(Water) (Calcium hydride)

25779 S/020/61/139/002/009/017
B104/B205

24.4200

AUTHORS: Srubshchik, L. S., and Yudovich, V. I.

TITLE: The asymptotic behavior of equations for a large deflection of an axisymmetric, loaded plate

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 2, 1961, 341 - 344

TEXT: A study has been made of the system

$$Av - \frac{u^2}{2} = 0, \quad \varepsilon^2 Au + uv + \varphi(\rho) = 0, \quad A(\,) \equiv -\rho \frac{d}{d\rho} \frac{1}{\rho} \frac{d}{d\rho} \rho(\,) \qquad (1).$$

of non-linear differential equations with one of the boundary conditions

$$v|_{\rho=1} = T > 0, \quad u|_{\rho=1} = 0; \qquad (2a)$$

$$\frac{dv}{d\rho} - \frac{\sigma}{\rho} v\Big|_{\rho=1} = 0, \quad u|_{\rho=1} = 0; \qquad (2b)$$

Card 1/8

$$\frac{dv}{d\rho} - \frac{\sigma}{\rho} v\Big|_{\rho=1} = 0, \quad \frac{du}{d\rho} + \frac{\sigma}{\rho} u\Big|_{\rho=1} = 0; \tag{2c}$$

$$v|_{\rho=1} = 0, \quad u|_{\rho=1} = 0; \tag{2d}$$

$$\frac{v}{\rho}\Big|_{\rho=0} < \infty, \quad \frac{u}{\rho}\Big|_{\rho=0} < \infty \quad \left(0 < \sigma < \frac{1}{2}\right).$$

These differential equations describe a large deflection of an axisymmetric loaded plate. Here, v is a radial force, and $u = dw/d\rho$, where w denotes the deflection of the plate. The boundary conditions (2) correspond to different modes of fixing of the plate. The quantity $\varepsilon^2 = h^2/12(1-\sigma^2)r_1^2$ characterizes the relative thickness of the plate, h is its thickness, r_1 the external radius, and σ Poisson's ratio. $\varphi(\zeta) = \frac{1}{Eh}\int_0^{\zeta} q(t)tdt$, where $q(\zeta)$ stands for the intensity of normal load. In addition, the equations of a membrane

Card 2/8

The asymptotic behavior of...

$$A v_0 - \frac{u_0^2}{2} = 0, \quad u_0 v_0 + \varphi(\rho) = 0 \qquad (3)$$

($\varepsilon = 0$) with the proper boundary conditions

$$\begin{aligned} &v_0|_{\rho=1} = T; \\ &\frac{dv_0}{d\rho} - \frac{\sigma}{\rho} v_0\Big|_{\rho=1} = 0; \\ &\frac{dv_0}{d\rho} - \frac{\sigma}{\rho} v_0\Big|_{\rho=1} = 0; \\ &v_0|_{\rho=1} = 0; \\ &\frac{v_0}{\rho}\Big|_{\rho=0} < \infty. \end{aligned} \qquad (4)$$

are discussed. The boundary problem (1)-(2) is studied for $\varepsilon \longrightarrow 0$. Asymptotic representations of the solution are presented for $\varepsilon \longrightarrow 0$,

Card 3/8

and it is shown that for $\varepsilon \longrightarrow 0$, the solution of the problem converges, uniformly toward the solution of the problem (3)-(4) in any inner range from $[0,1]$, and that the behavior of a solution of (1)-(2) in the neighborhood of the point $\xi = 1$ corresponds to a boundary layer. For the particular case of condition (2B), an asymptotic representation of the solution has been given for q = const (Sborn. Teoriya gibkikh i kruglykh plastinok, IL, 1957; E. Bromberg, Comm. Pure and Appl. Math., 9, no. 4, 633 (1956)). The solutions of (1) are presented in the asymptotic form

$$v = \sum_{s=0}^{n+2} \varepsilon^s v_s + \sum_{s=0}^{n+2} \varepsilon^s h_s + \sum_{s=0}^{n+2} \varepsilon^s \alpha_s + R_n,$$

$$u = \sum_{s=0}^{n} \varepsilon^s u_s + \sum_{s=0}^{n} \varepsilon^s g_s + \sum_{s=0}^{n} \varepsilon^s \beta_s + S_n. \qquad (5)$$

The functions $v_s(\xi)$ and $u_s(\xi)$ are obtained by the first iteration process,

using the terminology introduced by M. I. Vishik et al. (DAN, 121, no. 5, 778, (1958)). g_s and h_s are determined by the system

$$\frac{d^2h_l}{dt^2} = 0, \quad h_l|_{t=\infty} \quad (l = 0, 1); \tag{10}$$

$$\frac{d^2h_{s+2}}{dt^2} = R_1h_{s+1} + R_2h_s - \sum_{k+j+l=s} t^l u_{kl}g_j + \sum_{k+j+l+1=s} t^{l+1}u_{kl}g_j - \\ - \frac{1}{2}\sum_{j+l=s} g_jg_l + \frac{1}{2}\sum_{j+l+1=s} tg_jg_l,$$

$$\frac{d^2g_s}{dt^2} - v_{00}g_s = R_1g_{s-1} + R_2g_{s-2} + \sum_{k+j+l=s} t^l v_{kl}g_j - \sum_{k+j+l+1=s} t^{l+1}v_{kl}g_j + \\ + \sum_{j+m=s} g_jh_m - \sum_{j+m+1=s} tg_jh_m + \sum_{k+m+l=s} t^l u_{kl}h_m - \sum_{k+m+l+1=s} t^{l+1}u_{kl}h_m, \tag{11}$$

where $R_1(\ ) \equiv 2t\frac{d^2(\ )}{dt^2} + \frac{d(\ )}{dt}$, $R_2(\ ) \equiv -t^2\frac{d^2(\ )}{dt^2} - t\frac{d(\ )}{dt} + (\ )$,

$$g_{-2} = g_{-1} = 0, \ v_{00} = T > 0 \ (s = 0, 1, \ldots)$$

Card 5/8

The asymptotic behavior of...

This set of linear differential equations has constant coefficients and the boundary conditions $g_s|_{t=0} = -u_{so}$; $g_s|_{t=\infty} = 0$; $h_{s+2}|_{t=\infty} = 0$. One obtains $g_0(\xi) = -u_{oo}\exp(-\sqrt{T}(1-\xi)/\varepsilon)$, i. e., g_0 is a function of a zero-order boundary layer. The convergence is proved by setting $\varphi_k = v - R_k$ and $\psi_k = u - S_k$ and using the estimate

$$\begin{aligned} A(v-\varphi_k) - {}^1/_2(u^2-\psi_k^2) &= O(\rho\varepsilon^{k+1}), \\ \varepsilon^2 A(u-\psi_k) + (uv-\varphi_k\psi_k) &= O(\rho\varepsilon^{k+1}). \end{aligned} \qquad (12).$$

Lemma 1 by N. F. Morozov (DAN, 123, no. 3, 417 (1958)) is mentioned: $v \geq 0$ holds for the solution of the problem (1)-(2). Lemma 2: For sufficiently small ε $(0<\varepsilon<\varepsilon_1)$ one obtains for all $\xi \in [0,1]$: 1) $\varphi_k \geq 0$; 2) $\min(\varphi_k/\xi)$ T/2. Lemma 3: The energy estimate

Card 6/8

The asymptotic behavior of...

$$\int_0^1 \left|\frac{dR_k}{d\rho}\right|^2 d\rho + \frac{1}{2}\int_0^1 \frac{R_k^2}{\rho^2}\,d\rho + \varepsilon^2\int_0^1 \left|\frac{dS_k}{d\rho}\right|^2 d\rho + \frac{\varepsilon^2}{2}\int_0^1 \frac{S_k^2}{\rho^2}\,d\rho + \frac{T}{4}\int_0^1 S_k^2\,d\rho \leqslant$$

$$\leqslant C\varepsilon^{k+1}\int_0^1 (|R_k| + |S_k|)\,d\rho. \qquad (13)$$

holds for R_k and S_k. Theorem 1: For the problem (1)-(2a) there exists an asymptotic representation (5), where the estimates

$$\max_{0<\rho<1}|R_k(\rho)| \leqslant C_1\varepsilon^{k+1}, \quad \max_{0<\rho<1}|S_k(\rho)| \leqslant C_2\varepsilon^{k+1/2} \quad (k = 0, 1, 2, 3, \ldots, n); \qquad (14)$$

$$\max_{0<\rho<1}\left|\frac{dR_k}{d\rho}\right| \leqslant C_3\varepsilon^{k+1} \quad (k = 0, 1, 2, \ldots);$$

$$\max_{0<\rho<1}\left|\frac{dS_k}{d\rho}\right| \leqslant C_4\varepsilon^{k-1} \quad (k = 2, 3, \ldots); \qquad (15)$$

(15)

Card 7/8

The asymptotic behavior of...

and

$$\max_{0<\rho<1}\left|\frac{d^2R_k}{d\rho^2}\right| \leqslant C_6 e^{k-1/2} \quad (k=1, 2, \ldots);$$

$$\max_{0<\rho<1}\left|\frac{d^2S_k}{d\rho^2}\right| \leqslant C_6 e^{k-1/2} \quad (k=3, 4, \ldots). \qquad (16)$$

are valid for R_k and S_k. It is further shown that representations of the form (5) are correct also for the other cases of the problems discussed here. This work was carried out at the Seminar on Non-linear Problems, Rostovskiy-na Donu universitet (Rostov-na-Donu University). There are 10 references: 9 Soviet-bloc and 1 non-Soviet-bloc.

PRESENTED: February 24, 1961, Yu. N. Rabotnov, Academician

SUBMITTED: February 20, 1961

Card 8/8

S/040/62/026/005/009/016
D234/D308

AUTHORS: Srubshchik, L. S. and Yudovich, V. I. (Rostov-on-Don)

TITLE: Asymptotic integration of the system of equations of large sagging of symmetrically loaded shells of revolution

PERIODICAL: Prikladnaya matematika i mekhanika, v. 26, no. 5, 1962, 913-922

TEXT: The authors consider the behavior of the equations of this problem for $\varepsilon \to 0$, ε^2 being the parameter which characterizes the relative thinness of the walls. Equations

$$Av_0 - \frac{u_0^2}{2} + \Theta u_0 = 0, \quad u_0 v_0 - \Theta v_0 + \varphi(\rho) = 0 \qquad (1.3)$$

of the membrane problem are analyzed and it is proved that they

have only one positive solution. The solutions of the shell equations are expanded in powers of ε and it is proved that they have only one membrane solution (using Kantorowich's theorem on the convergence of Newton's method). The asymptotic formula for the solution is

$$v = \sum_{s=0}^{n+1} \varepsilon^s v_s + \sum_{s=0}^{n+1} \varepsilon^s h_s + \sum_{s=0}^{n+1} \varepsilon^s \alpha_s + x_n$$

$$u = \sum_{s=0}^{n} \varepsilon^s u_s + \sum_{s=0}^{n} \varepsilon^s g_s + \sum_{s=0}^{n} \varepsilon^s \beta_s + z_n \qquad (3.1)$$

Card 2/3

Asymptotic integration of ... S/040/62/026/005/009/016
D234/D308

v_s, u_s, h_s, g_s ($s = 1,2,\ldots$) are determined successively, starting with v_0, u_0 which constitute the positive solution of the membrane problem (1.3). The rest terms are estimated.

ASSOCIATION: Rostovskiy universitet (Rostov University)

SUBMITTED: June 2, 1962

/c

Card 3/3

L 11178-63 EWP(r)/EWT(d)/EWT(m)/FCC(w)/BDS--AFFTC--IJP(C)/EM

ACCESSION NR: AP3001143 S/0199/63/004/003/0657/0672

57
56

AUTHOR: Srubshchik, L. S.; Yudovich, V. I.

TITLE: The Asymptotics of the equation for a great deflection of a circular symmetrically-loaded plate

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 4, no. 3, 1963, 657-672

TOPIC TAGS: thin plate, deflection of plate, edge conditions, von-Karman equations, asymptotic solutions, precision-instrument design

ABSTRACT: This theoretical paper deals with the problem of the boundary effect, consisting in a rapid change of stresses and strains, in severely deflected thin plates in which the bending moments are small and the plate behaves as a membrane everywhere except in a thin layer close to the boundary. Such phenomena are generally described by means of differential equations with a small parameter before the higher derivatives, where the relatively thin thickness of the plate serves as the small parameter. As a result, the problem of the construction of asymptotic solutions arises. The present paper examines the von-Karman equations for great deflections of a circularly-symmetrical loaded plate. The asymptotic concepts developed in this paper can be applied in the approximate calculation

Card 1/2

L 11178-63
ACCESSION NR: AP3001143

of circular, axially-symmetrical, loaded plates, such as are frequently encountered in practical problems of precision instrument making. The paper comprises the construction of the asymptotics, the membrane equations, and a substantiation of the asymptotic expansion employed. The method employed here permits also the examination of the equations of great deflections of annularly-shaped plates, in which different edge conditions are prescribed for the inner and the outer edges of the plate. For example, the inner edge of such a plate can be firmly fixed, whereas the outer edge is rigidly clamped and a radial tensile stress is applied.

ASSOCIATION: Rostovskiy universitet (University of Rostov) at the time of compilation of paper

SUBMITTED: 15Aug61	DATE ACQD: 01Jul63	ENCL: 00
SUB CODE: MM, AP	NO REF SOV: 013	OTHER: 002

ch
Card 2/2

KRUCHCHIK, L.E. (Rostov-na-Donu)

Asymptotic integration of a system of nonlinear equations in the theory of plates. Prikl. mat. i mekh. 28 no.2:335-349 Mr-Ap'64. (MIRA 17:5)

1. Rostovskiy-na-Donu universitet.

SMIRNOV, L.S. (Rostov-na-Donu)

Circular plates under the action of discontinuous loads. Prikl. mat. i mekh. 28 no.6 1024-1032 N-D '64. (MIRA 18:2)

L 23438-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)/EWA(h)/ETC(m)-6 IJP(c) WW/EM

ACC NR: AP6007582 SOURCE CODE: UR/0040/66/030/001/0116/0123

AUTHORS: Grubshchik, L. S. (Rostov-na-Donu); Yudovich, V. I. (Rostov-na-Donu)

ORG: none

35
B

TITLE: A note on the reliability of membrane solutions in the nonlinear theory of plates and shells 16

SOURCE: Prikladnaya matematika i mekhanika, v. 30, no. 1, 1966, 116-123

TOPIC TAGS: shell, shell theory, stability condition, membrane, mathematical analysis, plate stability, Lyapunov function

ABSTRACT: A plate of arbitrary form under the effect of given normal loading and edge forces and a sloping shell under the effect of external forces are studied in regard to the application of membrane solutions. It is shown that the membrane solution of these problems yields minimum potential energy and is thus a stable solution. The system of nonlinear Karman equations of the theory of stiff plates is given as

$$\Delta^2 F + w_{xx} w_{yy} - w_{xy}^2 = 0$$

$$\varepsilon^2 \Delta^2 w - w_{xx} F_{yy} - w_{yy} F_{xx} + 2 w_{xy} F_{xy} - q = 0$$

with boundary conditions

$$w|_\Gamma = 0, \quad w_n|_\Gamma = 0$$

$$F_{\tau\tau}|_\Gamma = T(A) > 0, \quad F_{n\tau}|_\Gamma = S(A) \quad (A \in \Gamma),$$

Card 1/3

where

$$F=\frac{F_1}{Ea^2},\quad w=\frac{w_1}{a},\quad q=\frac{q_1a}{Eh},\quad \varepsilon^2=\frac{h^2}{12(1-\mu^2)a^2}$$

$$x=\frac{x_1}{a},\quad y=\frac{y_1}{a},\quad n=\frac{n_1}{a},\quad \tau=\frac{\tau_1}{a}\quad \left(0<\mu<\frac{1}{2}\right).$$

F_1 is the stress function, w_1 is the deflection of points on the median surface, q_1 is the transverse loading intensity, k is the plate thickness, E is Young's Modulus, μ is Poisson's coefficient, (x_1, y_1) are rectangular coordinates, Γ is the boundary of the singly-linked region Ω, a is the diameter of the region, n_1 and τ_1 are, respectively, the normal and tangential stresses at the edge, and $F_{\tau\tau}(A)$ and $F_{n\tau}(A)$ are the normal and tangential components of external force applied to the edge of the plate. The potential energy functional is given by

$$J(w)=\frac{\varepsilon^2}{2}\int_\Omega[(\Delta w)^2-2(1-\mu)(w_{xx}w_{yy}-w_{xy}^2)]\,dx\,dy-$$

$$-\frac{1}{2}\int_\Omega[(\Delta F)^2-2(1+\mu)(F_{xx}F_{yy}-F_{xy}^2)]\,dx\,dy+$$

$$+\frac{1}{2}\int_\Omega[F_{xx}w_y^2+F_{yy}w_x^2-2F_{xy}w_xw_y]\,dx\,dy-\int_\Omega qw\,dx\,dy;$$

the authors show that the second variation of the functional J for the membrane solution is positive. For the case of the shell rotation the J functional is given by

L 23438-66

ACC NR: AP6007582

$$J(u_0) = \frac{\varepsilon^2}{2}\int_0^1 \left(\rho u_{0\rho}^2 + \frac{u_0^2}{\rho}\right) d\rho + \frac{1}{2}\int_0^1 \left(\rho v_{0\rho}^2 + \frac{v_0^2}{\rho}\right) d\rho - \frac{\mu}{2} v_0^2(1) + \int_0^1 \varphi_0(\rho)\, u_0 d\rho ,$$

where v and ϕ are polar coordinates. This is also shown to be nonnegative and the corresponding stationary solution shown to be stable. Converse cases are also considered and three concrete examples are given. Orig. art. has: 66 equations.

SUB CODE: 20, 12/ SUBM DATE: 20Oct65/ ORIG REF: 014/ OTH REF: 002

Card 3/3 FV

L 16193-65 EPA(s)-2/EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pt-10/Pu-4 ESD(gs)/ ESD(t)/AEDC(a)/AFWL/ASD(f)-2/AFETR/AFTC(a) JD/MW/JG

ACCESSION NR: AP5000273 S/0040/64/028/006/1024/1032

AUTHOR: Srubshchik, L. X. (Rostov-

TITLE: Circular plates under discontinuous loading 15

SOURCE: Prikladnaya matematika i mekhanika, v. 28, no. 6, 1964, 1024-1032

TOPIC TAGS: circular plate, plate flexure, circular plate flexure, discontinuous loading

ABSTRACT: The flexure of circular plates under partial concentric circular loading is discussed. It is proven by means of asymptotic methods that an "internal" boundary layer (similar to that caused by the edge effect) is formed in the vicinity of the circumference of the circle where the load is discontinued. Solutions of the problem in asymptotic formulation are obtained and substantiated, and can be used in designing circular plates under discontinuous loading. A system of Karman equilibrium equations for a symmetrically loaded circular plate built-in along its circumference is taken as the initial equations with displacement components used in asymptotic

Card 1/2

L 16193-65
ACCESSION NR: AP5000273

form. The procedure of calculation for different boundary conditions (simply supported or hinged plates) is indicated. The theory is illustrated by a sample analysis of the flexure of a circular plate clamped along its edge (radius R) and subject to a concentric, uniform, continuous load over a circle of a radius smaller than R. Orig. art. has: 4 figures, 44 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 20Jun64 ENCL: 00 SUB CODE: AS, ME

NO REF SOV: 005 OTHER: 002 ATD PRESS: 3146

Card 2/2

ABRIKOSOV, A.I., akademik, redaktor; SRUKOV, A.I.

To Academician A.I. Abrikosov, editor of the journal "Arkhiv Patologii."
Arkh.pat. 15 no.1:91-96 Ja-F '53. (MLRA 6:5)

1. Zhurnal "Arkhiv patologii" (for Abrikosov). (Anatomy, Pathological)
(Physiology, Pathological)

SHAUTSUKOVA, L.K., dotsent, kand. med. nauk; SRUKOV, M.N.

Effect of the "Dolinsk No.1" mineral water on the evacuation of the stomach; experimental data. Uch. zap. Kab.-Balk. gos. un. no.12:287-291 '62. (MIRA 16:6)

(NAL'CHIK--MINERAL WATERS)
(GASTROINTESTINAL MOTILITY)

SRUKOV, M.N.

Vascular system of the mammary gland in goats. Vest.LGU 17 no.21:113-121 '62. (MIRA 15:12)
(UDDER—BLOOD SUPPLY)

SRULEVICH, I.S. (Sverdlovsk).

All-welded heating system pipes. Vod. i san. tekh. no.4:13-14 Ap '57.
(Heating pipes) (MLRA 10:6)

SRUOGINITE, A. V.

Dissertation: "Effect of Some Vitamin B Complex on the Activity of Carbon Anhydrase of the Blood." Cand Biol Sci, Inst of Experimental Medicine, Acad Sci Lithuanian SSR, Vil'nyus, 1954. (Referativnyy Zhurnal--Khimiya, Moscow, No 10, May 54)

SO: SUM 318, 23 Dec 1954

SRUSTOROVICH, Ye.M.; DYATKIKA, M.Ye.

Claculation of the ground states of dibenzenechromium, the cobalticinium cation, and chromocene, using the method of self-consistent molecular orbitals. Zhur. strukt. khim. 2 no. 1:49-58 Ja-F '61. (MIRA 14:2)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova i Institut obshchey i neorganicheskoy khimii AN SSSR im. N.S. Kurnakova.
(Chromium compounds) (Cobalticinium compounds)
(Chromium)

SRUTA, Jaroslav

Let us mobilize all forces for further evolution of the socialist society and for its preparation to be converted to communism. Cesk. zdrav. 10 no.9:425 '62.

1. Vedouci odboru zdravotnictvi UV KSC.
(COMMUNISM) (STATE MEDICINE)

SRUTA, O.

Evaluation of experiences and results of the streamline method of construction of industrial buildings. p. 176. (Pozemni Stavby, Vol. 5, No. 4, Apr 1957, Praha, Czechoslovakia)

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

SRUTA, O.

"Planning and designing problems in dwelling construction."

POZEMNI STAVBY, Praha, Czechoslovakia, Vol. 3, No. 10, October 1959.

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

Unclassified.

SWETSCHKE, O.;SRUTEK, F.

Blood changes in workers employed in hot shops. Pracovni lek. 4 no. 5:331-339 Oct 1952. (CLML 23:4)

1. Of the Institute of Industrial Medicine (Head--F. Olmdacek, M.D.), Pilsen.

SAUTEK, J.

"Using heat of the condensate for production of hot water." Energetika, Praha, Vol. 4, No. 7, July 1954, p. 318.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

SRUTEK, J.

One year's experience with using Wacco filters. p. 245.
VODA, Prague, Vol. 34, no. 8, Aug. 1954.

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

Srutek, J.

Contribution to the article by Jaroslav Simecek "Safety Valves of Steam Turbines." p. 232. ENERGETIKA. (Ministerstvo paliv a energetiky. Hlavni sprava elektraren) Praha. Vol. 6, no. 5, May 1956.

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

CZECHOSLOVAKIA

SRUTEK, J.; [Affiliation not given].

"The Task of Psychical Hygiene in the framework of Hygiene of Work." Notes to Article by Prof. Dr. E. Guensberger.

Prague, Pracovni Lekarstvi, Vol 15, No 9, 1963, pp 393 - 394

Abstract: The field of hygiene of work has changed drastically in the last 50 years. The changes are due both to sociological and technical reasons. To deal with all the modern problems psychiatric work is needed as well as medical care proper. There is also need for work psychology to provide congenial surroundings for the work. Too much importance is attached by the individual to his earning ability and not enough to the cultural aspects of his work. The medical, physiological, psychiatric, and sociological care for the worker requires collaboration with the production supervisors. The economists and planning personnel must be educated by medical people to plan for improved standards of health of their employees. No references.

1/1

SRUTEK, J. MUDr

Observations of workers exposed to heat with special reference to vitamin C level in blood and vitamin C secretion in urine. Pracovni lek. 7 no.4:206-214 Jy '55.

1. Zavodni lekar L.Z., n.p., Plzen

(HEAT, effects
on vitamin C level in blood & vitamin C secretion in urine in exposed workers)
(VITAMIN C, in blood
eff. of heat in exposed workers)
(VITAMIN C, in urine
excretion, eff. of heat in exposed workers)
(URINE
vitamin C excretion, eff. of heat in exposed workers)
(BLOOD
vitamin C level, eff. of heat in exposed workers)

CHUDACEK, Frant., MUDr.; SRUTEK, Josef, MUDr.

Method of work hygiene and prevention of occupational disease at the health center in the Lenin Works in Plzen. Pracovni lek. 8 no.5:369-372 Oct 56.

1. Zavodni ustav narodniho zdravi pri Leninovych zavodech v Plzni, reditel MUDr. Fr. Chudacek.
(INSUSTRIAL HYGIENE,
health centers in indust. in Czech. (Cz))

SRAMEK, J.; SHUTEK, J.

Chronic inflammation of the respiratory tract and pulmonary emphysema in industrial workers. Pracovni lek. 10 no.2:156-162 May 58.

1. Vnitrni oddeleni ZUNZ v Plzni, prednosta prim. MUDr. J. Sramek. J.S., Plzen, Gorkeho 5.

(EMPHYSEMA, PULMONARY, diagnosis
screening of indust. workers (Cz))
(RESPIRATORY TRACT, diseases
chronic inflamm., screening of indust. workers (Cz))
(INDUSTRIAL HYGIENE,
screening of workers for pulm. emphysema & inflamm. of resp. tract (Cz))

SRUTEK,Josef

A method for detailed temperature curve. Pracovni. lek. 11 no.7: 371-372 S '59.

1. ZUNZ Plzen.
(BODY TEMPERATURE)

SRUTEK, Josef; HUZL, Frantisek

Hygienic problems in accurate casting by the method of the dissolvable wax model. Prac. lek. 17 no.1:16-18 Ja '65

1. Odbor hygieny prace , Krajska hygienicko-epidemiologicka stanice v Plzni (vedouci: MUDr. J. Srutek) a Oddeleni chorob z povolani a prumyslove toxikologie SFN v Plzni (vedouci: MUDr. F. Huzl,CSc.)

SRUTEK, Josef, MUDr. (Plzen, Puskinova 6)

Review of noise in plants of the West Bohemian region. Prac. lek. 17 no.2:61-63 Mr'65.

1. Krajska hygienicko-epidemiologicka stanice Zapadoceskeho kraje v Plzni.

SRUTEK, Josef

Aerosols and electroaerosols in the atmosphere, their significance and use in medicine. Preliminary report. Plzen. lek. sborn. 23: 137-157 '64

1. Krajska hygienicko-epidemiologicka stanice Plzen (vedouci odboru hygieny prace MUDr. J. Srutek).

B. I. - C. Journal

Bibl abs

SRUTEK, L.

Flame-failure controls for gas appliances. L. Srutek. (Plyn, 1960, 40, 177—180).—Automatic devices for controlling flame failure in gas-burning appliances are described. R. TRUSCOE.

SRVANDZTYAN, G., inzh.

Radically reorganize the operations of the building er terprises in Armenia. Prom.Arm. 4 no.12:29-32 D '61. (MIRA 15:2)
(Armenia--Construction industry--Management)

KOTSANDI, I.A., inzhener; MAMONTOV, I.I., inzhener; SRYBNIK, D.A., inzhener.

New machine for welding reinforcing fabrics. Nov.tekh.i pered.op.v stroi. vol.19:18-21 Ag '57. (MIRA 10:10)
(Electric welding) (Reinforced concrete)

CZECHOSLOVAKIA/Solid State Physics - Structural Crystallography.

Abs Jour : Ref Zhur - Fizika, No 6, 1959, 12995

Author : Srytr, Vl.

Inst : Scientific Institute for Minerals, Turnov, Czechoslovakia

Title : Orientation of Crystals and Spectra Obtained from X-Ray Tubes.

Orig Pub : Jemna mech. a opt., 1958, 3, No 5, 160-161, 172

Abstract : Description of the construction of a Laue camera for reflected and transmitted rays as a supplement to the "Mikrometa" x-ray apparatus manufactured by the Hirana Praha Plant. Results of the measurement of spectra obtained from tubes with copper, tungsten, and molybdenum anti-cathodes are reported. Author's resumes.

Card 1/1

SOLC, I., dr.; SRYTR, Vl.

X-ray spectrometer for precision crystal grinding. Jemna mech opt 5 no.2:43-45 F '60.

1. Vyzkumny ustav pro mineraly, Turnov.

NESHUKAYTIS, V.V. [Nesukaitis,V.]; SRYUBAS, V.A. [Sriubas,V.]

Application of an electron-optical system of unfolding for automation of optical testing of paper. Liet ak darbai B no.3:183-188 '60. (EEAI 10:3)

1. Institut energetiki i elektrotekhniki Akademii nauk Litovskoy SSR (Paper)

SRYUBAYTE-GRUODENE, Ya. P., Cand Biol Sci — (diss) "Effect of heteroauxin ~~on the~~ metabolism in potatoes and the yield of tubers." Vil'nyus, 1959. 27 pp (Min of Higher Education USSR. Vil'nyus State U im V. Kapsukas). 150 copies (KL,40-59, 103)

SRYUBENE, R. M.

Use of chemioprophylaxis and chemotherapy in children with a cutireaction and in those in contact [with tuberculosis] in Kaunas. Probl. tub. 40 no.4:40-42 '62. (MIRA 15:6)

1. Iz Kaunasskogo protivotuberkuleznogo dispansera Litovskoy SSR (glavnyy vrach Ya. V. Zhakovichayte, zav. detskim otdeleniyem F. P. Stashene, nauchnyy rukovoditel(- kandidat meditsinskikh nauk Yu. L. Gamperis)

(TUBERCULIN--TESTING) (KAUNAS--TUBERCULOSIS)
(CHEMOTHERAPY)

[redacted] SKYALIN, I. T.

Study of the properties of molten sulfides by the method of electromotive forces. V. The system Pb–PbS and Cu–Cu$_2$S. O. A. Esin and I. T. Sryvalin [redacted]. M. Kirov Ural Polytech. Inst., Sverdlovsk. *Zhur. Fiz. Khim.* 25, 1301–11(1951).—The e.m.f. E of cells "graphite/Cu, CuS, n = 0.33/glass contg. SiO_2 72, Na_2O 17, CaO 9, and FeO 0.5%/Cu, CuS, n = x/graphite" at 1200° was, e.g., 0.284, 0.108, 0.092, 0.077, and 0.020 v. at x = 0.0022, 0.0172, 0.0214, 0.268, and 0.318, resp.; n is the at. fraction of S in the melt. Thus, E generally decreased when x increased but was almost const. within the two-phase region (between 3 and 10 wt. % S). The E at 1300° was about 0.03 v. greater than at 1200°. The activity coeff. of Cu was 0.98–1.00, but that of S reached 2 at 1200° and 1.3 at 1300°. The change in Helmholtz free energy (ΔF) for the two-phase region was −3680 and −4612 cal. at 1200° and 1300°. The analogous expts. with Pb + PbS melts at 1180° gave, e.g., E = 0.199 and 0.100 v. when the const. n was 0.44 and the variable n was 0.017 and 0.065, resp.; again E was const. within the two-phase region (4–8.5 wt. % S). The activity coeff. was 0.98–1.00 for Pb and 1.00–1.26 for S and ΔF was −3700 cal. The results are in qual. agreement with Vol'skii's measurements (*Fundamentals of the Theory of Metallurgical Melts*, 1943) on the equil. between H_2 and sulfide melts.

J. J. Bikerman

USSR/Chemistry, Metallurgy - Copper, Nickel, Mar 52
Iron Sulfides

"Investigation of the Properties of Molten Sulfides By the EMF Method. II. Systems Cu_2S-Ni_3S_2 and Cu_2S-FeS," I. T. Sryvalin, O. A. Yesin, Ural Polytech Inst imeni S. M. Kirov, Sverdlovsk

"Zhur Fiz Khim" Vol XXVI, No 3, pp 371-376

Measured emf values at 1180° in systems consisting of melts Cu_2S-Ni_3S_2 (I) or Cu_2S-FeS (II) (serving as electrodes) and liquid glass + Na_2S functioning as electrolyte. Demonstrated that emf values change regularly with the compn of the melts and in accordance with their fusibility diagram. The results obtained are in agreement with data based on equil sulfur vapor pressures over melts and confirm the electrochem nature of interaction between the liquid matte and slag. The melts investigated do not behave like ideal solns: the activity of sulfur deviates from that calcd on the basis of the rule of mixing, being higher than the latter with I and lower with II.

213T32

SRYVALIN, I. T.

SOV/137-57-10-18787

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 49 (USSR)

AUTHORS: Kuznetsov, S.I., Antipin, L.N., Sryvalin, I.T., Serebrennikova, O.V., Derevyankin, V.A.

TITLE: Properties of Aluminate Solutions (Svoystva alyuminatnykh rastvorov)

PERIODICAL: Tr. Ural'skogo politekhn. in-ta, 1957, Nr 58, pp 36-50

ABSTRACT: A study is made of the properties of aluminate solutions for density, viscosity, electrical conductivity (C) and surface tension. Subjected to the investigation were solutions containing ~30-320 g N_2O_{total}/liter and 15-320 g Al_2O_3/liter, with a basicity of 1.48-3.53. The solutions are made by dissolution of grade A_{oo} Al in chemically-pure caustic. These properties of the aluminate solutions are measured at 30, 40, 50, 60, and 80°C. Density is determined by pycnometer, viscosity by the Ostwald viscosimeter, and electrical conductivity by the Kohlrausch bridge. Surface tension is determined by the method of maximum pressure of air bubbles (the "Rebinder" instrument). An investigation of aluminate solutions of various molar Na_2O_{total} Al_2O_3 ratios in accordance with strength show that

Card 1/2

Properties of Aluminate Solutions

at first specific C rises with Na_2O concentration, attaining a maximum at 90-140 g Na_2O_{total}/liter, and then declines. The molar C of aluminate solutions drops smoothly as concentration rises. Molar C decreases with increasing Al_2O_3 concentration in the solution. As temperature rises, the C maximum shifts toward higher concentrations. The viscosity of aluminate solutions containing up to 100 g Na_2O_{total}/liter at various Al_2O_3 concentrations is virtually the same as the viscosity of NaOH solutions of the same strengths. The high values of the molar C of aluminate solutions and the low values of the energies of activation bear witness to the fact that the predominant Na^+ solutions in dilute solutions are also accompanied by a smaller amount of OH^-. Viscosity is determined primarily by the large and sluggish aluminate anions. As temperature rises, the density of the aluminate solutions shows a linear decrease. In dilute solutions, the energies of activation, ϵ_ℓ and ϵ_η are 400-700 cal/mole, while in strong solutions they differ and depend upon the $Na_2O:Al_2O_3$ ratio. Surface tension rises with concentration and drops as temperature rises.

Card 2/2

O. B.

SRYVALIN, I.T.

KUZNETSOV, S.I.; SRYVALIN, I.T.; ANTIPIN, L.N.; MIKHALEVA, A.M.

Influence of admixtures on the properties of aluminate solutions.
Trudy Ural. politekh.inst. no.58:51-56 '57. (MIRA 11:4)
(Alkali metal aluminates)

TIKHONOV, A.I.; SMIRNOV, V.I.; SRYVALIN, I.T.

Decomposition kinetics of cobalt, nickel, and copper chlorides by oxygen. Trudy Ural. politekh.inst. no.58:167-176 '57.
(Cobalt chloride) (Nickel chloride) (MIRA 11:4)
(Copper chloride)

SOV/137-58-8-16387

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 23 (USSR)

AUTHORS: Sryvalin, I.T., Nikitin, Yu.P., Khlynov, V.V.

TITLE: Interphase Tension in Sulfide-slag Melts (Mezhfaznoye natyazheniye rasplavov sul'fid-shlak)

PERIODICAL: Tr. Ural'skogo politekhn. in-ta, 1957, Nr 67, pp 64-68

ABSTRACT: The interphase tension of sulfides on the boundary (B) with the slags (S) at 1200-1250°C was measured by means of X-ray photography of a drop. The Cu sulfide contained (here and further on in weight %) Cu 77.71, S 20.47, and Fe 1.82, while the Ni sulfide contained Ni 72.8 and S 25.7. The density of the sulfides and S was calculated approximately by the law of additivity from data relative to solid components. The calculation of σ was done graphically. The error in the measurements did not exceed 20%. The σ of Cu_2S on the B with S [CaO 12, Al_2O_3 15, the remainder ($FeO+SiO_2$)] decreases from 340 (FeO 0) to 150 erg/cm^2 (FeO 50); for Ni_3S_2 on the B with S [CaO 27, Al_2O_3 11, the remainder ($FeO+SiO_2$)] it varies from 450 (FeO 0) to 200 erg/cm^2 (FeO 35). The decrease of σ is explained by the approach of the nature of the

Card 1/2

Interphase Tension in Sulfide-slag Melts

sulfides toward that of the S in proportion to the increasing concentration of FeO in the latter. Upon the substitution of Cu_2S for Ni_3S_2 in the matte, the σ on the B with S (SiO_2 72, CaO 8, Al_2O_3 6, Na_2O 14) decreases from 470 (Ni_3S_2 100) to 300 erg/cm^2 (Cu_2S 100). The σ-vs.-composition curve is concave upward. The values for σ are close to those of the surface tension of sulfides measured earlier. The authors explain the decrease in the losses of sulfides in the slag by the increase of σ upon the decrease of FeO in S or Cu_2S in the matte.

S.P.

1. Metal sulfides--Surface tension 2. Slags--Properties 3. Mathematics

YESIN, O.A.; SRYVALIN, I.T.; KHLYNOV, V.V.

Studying the properties of fusions $PbO--Na_2O--SiO_2$ by means of electromotive forces. Zhur. neorg. khim. 2 10:2429-2435 O '57. (MIRA 11:3)

1. Ural'skiy politekhnicheskiy institut im. S.M.Kirova.
(Fusion) (Oxides) (Electrolysis)

NIKITIN, Yu.P.; YESIN, O.A.; SRYVALIN, I.T.

Binary layer capacity at the boundary of aluminum with the cryolite alumina melt. Nauch. dokl. vys. shkoly; met. no.1:37-40 '58. (MIRA 11:9)
(Aluminum--Electrometallurgy)