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S/056/63/044/001/053/067  
B187/B102

AUTHORS: Bukat, G. M., Sliv, L. A., Sogomonova, G. A.  
TITLE: Residual pair forces in the light nuclei  $O^{18}$  and  $F^{18}$   
PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,  
no. 1, 1963, 316-325

TEXT: The nuclei of  $O^{18}$  and  $F^{18}$  are considered to be composed of the magic core with filled shells ( $O^{16}$ ) plus two nucleons moving in the potential  $V = V_C + V_S + V_p$ .  $V_C$  is the averaged local potential of all nucleons of the nucleus, and has been determined by L.S. Sliv and B. A. Volchok (ZhETF, 36, 539, 1959).  $V_S$  is the potential caused by the quadrupole portion of interaction between an external nucleon and the nucleons of the core. It has been calculated by V.N. Guman (ZhETF, 41, 800, 1961).  $V_p$  occurs in the presence of external nucleons and is determined by the residual forces left over after averaging. These are mainly pair forces which become active at small nucleon distances. They

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D107/D102

Residual pair forces in the light ...

independent of the isospin. The transition probabilities  $P(\lambda)$  between the individual levels change by 9 orders of magnitude. [Abstractor's note:  $10^{14}$  should read  $10^4$ .] After elimination of the energy dependence, the values of the reduced probability  $B(\pi_\lambda)$  change by 3 orders of magnitude. Despite the considerable variation, the  $\pi_\lambda$  values calculated agree fairly well with those observed. The interaction between nucleons and core is strongest in light nuclei, as the effective surface tension  $C$  decreases from 2000 to 150 in going from  $Pb^{206}$  to  $O^{16}$ . The sensitivity of the results to the parameters  $\hbar\omega$  and  $C$  increases; the values calculated and observed for  $\hbar\omega = 1.0 - 2.0$  are in good agreement, whereas those observed and calculated for  $\hbar\omega = 3$ , differ considerably. The results obtained for the spectra in the present paper are more complete and exact than those obtained either by J.P. Elliott and B.H. Flowers (Proc. Roy. Soc., A229, 1955, 536) using the shell model, or by H.G. Radlick (Phys. Rev. 110, 1958, 468) using the model of a deformed nucleus. There are 4 figures and 4 tables.

Card 3/4

SLIV, L. A.; KHARITONOV, Yu. I.

"High-Lying Nuclear Isomeric States."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22  
Feb 64.

FTI (Physico Technical Inst)

ACCESSION NR: AP4019253

S/0056/64/046/002/0811/0813

AUTHOR: Sliv, L. A.; Kharitonov, Yu. I.

TITLE: Residual np interaction in heavy nuclei and high isomer states

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 811-813

TOPIC TAGS: np interaction, heavy nucleus, isomer state, high lying isomer state, transuranium element

ABSTRACT: In view of the large number of nuclear phenomena in which a vital part is played by residual np interaction between the nucleons of the overfilled neutron and proton shells, and analysis is made of the matrix elements of the np forces in such interactions, for various neutron and proton configurations. It is found that isomeric levels caused by np forces can be both low and high lying with respect to the ground state, and that high lying isomeric states

Card

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L 27606-66 EWT(m)

ACC NR: AP6018485

SOURCE CODE: UR/0367/65/001/006/1129/1131

AUTHOR: Sliv, L. A.; Kharitonov, Yu. I.

ORG: Physico-Technical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tehnicheskii institut AN SSSR)

TITLE: Isospin in heavy nuclei

SOURCE: Yadernaya fizika, v. 1, no. 6, 1965, 1129-1131

TOPIC TAGS: heavy nucleus, Coulomb interaction, quantum number, nuclear spin, light nucleus, cadmium, nucleon, nuclear resonance

ABSTRACT: Whether or not it is possible to ascribe definite values of the isospin  $T$  to states of heavy nuclei has become of current importance in connection with the observation of analog states. Reasons have been given that the isospin  $T$  may be a good quantum number for large values of the nuclear charge  $Z$ . But it is of interest to find the fraction of the mixture of states with other  $T$  in the lowest value of the isospin  $T_0$  for the ground state, using the most realistic model of the nucleus and accurate approximations for the effect of Coulomb interaction.

The paper gives a formula for the Coulomb potential of a particle in a field of  $Z$  particles. The Coulomb part of the potential results in an admixture of states with other  $T$ ; or, more exactly, only the variable part of the Coulomb potential mixes states with different  $T$ . Accordingly, in the potential for the

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ACC NR: AP6018485

perturbation in T it is necessary to include only the term proportional to  $r_1^2$ . The resulting potential gives single-particle transitions to states with the same spins  $j$  and the same parity but with different radical quantum numbers  $n$ , in which the isospin  $T$  of the nucleus may change by unity. A formula is given for the fraction  $P$  of admixture of states with other  $T$ . The dependence of the fraction  $P$  on  $Z$  is expressed principally in the sum of  $n$  terms in the formula for  $P$ , in which  $n$  increases with  $Z$ .

For light nuclei up to  $Z=20$  ( $\text{Ca}^{40}$ ), for which  $T_0 = 0$ , the admixture fraction  $P$  increases with  $Z$ . The admixture of other  $T$  would increase approximately linearly if the isospin  $T_0$  remained equal to zero. Then, for nuclei heavier than  $\text{Ca}^{40}$ , use of the isospin as a quantum number would cease to have meaning. But for stable nuclei after  $\text{Ca}^{40}$  (actually the  $\text{Ca}^{40}$  nucleus does not lie on the stability curve) the isospin  $T_0$  is greater than zero and increases with increase in  $A$ . In other words, the admixture fraction  $P$  remains approximately the same for all stable nuclei: i.e., 1-2%. This result may also be extended to all the low excited states of the nuclei.

The purity of the isospin  $T$  in heavy nuclei may be verified experimentally from the familiar selection rules. Thus, the Fermi  $\beta$ -transition  $0^+ \rightarrow 0^+$  which is permitted in the ordinary spin will be forbidden in the isospin. Nuclear charge exchange reactions  $A(p,n)B$ , which go through resonance states of the compound nucleus, will be forbidden in  $T$ .

The ground state corresponds to a potential well with the minimum value  $T_0 = \frac{1}{2}(N - Z)$ . Excited states of the well correspond to higher values

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L 27606-66

ACC NR: AP6018485

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of the isospin T. The nucleon states in the excited well are said to be analog states and are easily observed experimentally. The authors thank M. Ya. Amis'ya and B. L. Birbrair for their helpful discussions. Orig. art. has: 1 figure and 8 formilas. JPRS

SUB CODE: 20 / SUBM DATE: 26Feb65 / ORIG REF: 001 / OTH REF: 002

Card

3/3

cc

I. 26948-65 EWT(1) IJP(c)

ACCESSION NR: AP5004530

S/0048/65/029/001/0102/0104

15  
8  
D

AUTHOR: Band, I.M.; Listengarten, M.A.; Sliv, L.A.

TITLE: Conversion matrix elements Report, 14th Annual Conference on Nuclear Spectroscopy in Tbilisi 14-22 Feb 1964

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.1, 1965, 102-104

TOPIC TAGS: internal conversion, Gamma radiation, conversion coefficient, conversion matrix

ABSTRACT: An internal conversion coefficient is expressed as the sum of the so-called partial coefficients pertaining to transitions of the electron to different final states of the energy continuum, characterized by the quantum number  $\kappa$ :

$$\alpha_q^{(\tau L)} = \sum_{\kappa} |M_{\kappa}|^2 \equiv \sum_{\kappa} |\operatorname{Re} M_{\kappa} + i \operatorname{Im} M_{\kappa}|^2$$

Here  $\alpha_q^{(\tau L)}$  is the conversion coefficient of type  $\tau$  gamma-radiation (E = electric; M = magnetic) of multipole order L on the q-th shell or subshell, and  $M_{\kappa} \equiv M_{\kappa}^{(\tau L)}$  is the partial conversion matrix element. These matrix elements are intermediate results in calculating internal conversion coefficients, but they also are of independent value and are used in solving other problems. In the present work there



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ACCESSION NR: AP5004530

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were calculated and tabulated the  $M_x$  for E1, E2, M1, and M2 transitions for the following values of the atomic number and transition energy  $k = \hbar\omega/mc^2$ : K-shell:  $Z = 81, 84, 88, 92, 0.20 \leq K \leq 5.0$ , L-shell:  $Z = 49, 53, 57, 61, 65, 69, 73, 77, 81, 84, 88, 92, 95, 98, 0.05 \leq K \leq 0.70$ . The algebraic expressions used for the matrix elements are adduced. "The individual numerical values for the matrix elements for any  $k, Z$  and multipolarity, among those listed above, can be obtained from the authors. It will be possible to order photoprints or microfilms of the tables from the Institute of Scientific Information of the Academy of Sciences of the SSSR. The authors are grateful to N.B. Brovtsina, K.I. Golovan', L.I. Fraiental' and F.I. Langelen, who participated in compilation of the tables." Orig.art.has: 21 formulas. [02]

ASSOCIATION: none

SUBMITTED: 00/--Jan65

ENCL: 00

SUB CODE: GP, MA

NR SOV REF: 007

OTHER: 001

ATD PRESS: 3189

2/2

RIVKIN, Samuil Simonovich; OSTROMUKHOV, Ya.G., inzh., retsenzent;  
SLIV, E.I., doktor tekhn. nauk, retsenzent; CHERTKOV,  
R.I., doktor fiz-mat. nauk, nauchn. red.; KLJMINA, Ye.V.,  
red.

[Theory of gyroscopic devices] Teoriia giroskopicheskikh  
ustroistv. Leningrad, "Sudostroenie." Pt.2. 1964. 547 p.  
(MIRA 17:7)

CZECHOSLOVAKIA/Farm Animals - Honey Bee

Q-7

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 26269

Author : ~~Sliva B.~~

Inst : On the Widening of Nests by Surplus Combs and Artificial  
Comb Foundation (O rashednenii gnozd zapasnymi sotami i  
iskusstvonnoy voshchinoy)

Orig Pub : Vcolarstvi, 1957, 10, No 3, 40-41

Abstract : The author considers as incorrect the currently used method  
of widening the nest first by putting surplus combs and then  
using the artificial comb foundation only after the building  
instinct is awakened in the bees. He quotes a number of ex-  
amples wherein the bees prefer the artificial comb foundation.  
The use of surplus combs is justified only when the colony  
lags behind in its development in the adverse weather which  
continues until the end of March or the beginning of April,  
and when afterwards, suddenly warmer weather sets in, and con-  
tributes a good honey crop.

Card : 1/1

CZECHOSLOVAKIA  
SLIVA, D.; RAZ, K.; FRANC, Z.; NESECEK, O.; Research Institute  
of Pharmacy and Biochemistry (Vyzkumny Ustav pro Farmacii a Bio-  
chemii), Prague.

"Absorption, Distribution, and Excretion of Activity After the  
Administration of C<sup>14</sup>-Ketophenylbutazone to Rats."

Prague, Czechoslovenska Fysiologie, Vol 15, No 5, Sep 66, pp  
407 - 408

Abstract: 1,2-diphenyl-4-(gamma-ketobutyl)-pyrazolidin-3,5-dion was  
tagged with radioactive C on the 3rd carbon in the pyrazolidin ring. The  
rate of adsorption and excretion and the affinity of individual organs  
for the drug are described. The drug has a high affinity for the brain,  
and stimulates the hypophysis adrenal glands. It has a low affinity for  
blood and is transported by the blood. The levels in bones are low.  
2 Western, 3 Czech references. 1 Figure. Submitted at 14 Days of  
Pharmacology at Smolenice, 16 Feb 66.

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SKURIKHINA, L.A.; SLIVA, I.I.

Inductothermy in the adrenal region in the compound treatment of  
sistat i lech.

GRIGOR'YEVA, T.G., starshiy nauchnyy sotrudnik; GLEBOV, M.A., starshiy nauchnyy sotrudnik; PERSIN, S.A., starshiy nauchnyy sotrudnik; PETRUKHA, O.I., starshiy nauchnyy sotrudnik; SLIVA, I.K.

Practices in effective control of the sugar beet weevil.  
Zashch. rast. ot vred. i bol. 4 no.5:23-25 S+O '59. (MIRA 16:1)

1. Vsesoyuznyy institut zashchity rasteniy (for Grigor'yeva, Glebov, Persin).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly (for Petrukha).
3. Glavnyy agronom inspeksii po sel'skomu khozyaystvu Smelyanskogo rayona, Cherkasskoy oblasti (for Sliva).  
(Smela District--Sugar beets--Diseases and pests)  
(Smela District--Weevils--Extermination)

M

POLAND/Cultivated Plants. Fruits. Berries.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20471.

Author : J. Sliva

Inst : Not given

Title : The Effect of Pruning Slightly Frozen Trees on the Restoration of Dead Tissue. (Vliyaniye obrezki podmerzshikh derev'yev na vosstanovleniye otmirayushchikh tkaney).

Orig Pub: Przegl. ogrodn., 1956, 33, No 11, 6.

Abstract: During the winter of 1955/56 frosts strongly affected Poland's fruit orchards, in particular, the poorly fertilized and tilled ones, as well as those bearing large quantities of fruit in 1955. In the tests conducted with plums and nut trees not one of the methods of fall pruning yielded positive results. In orchards suffering from

Card : 1/2

GONSKIY, G.V., kand.tekhn.nauk; SLIVA, O.K., inzh.

Designing an elastic plunger coupling with a limiting moment.  
Izv.vys.ucheb.zav.; mashinostr. no.6:71-80 '63. (MIRA 16:10)

1. Khar'kovskiy politekhnicheskii institut.

L 10847-6/ EWI(M)/EWF(K)/EWF(W)/EWF(V) SOURCE CODE: UR/0124/66/000/008/V052/V052 32  
ACC NR: AR6034733

AUTHOR: Sliva, O. K.

TITLE: Specific features in calculating the natural frequencies of bending of the operating blades of turbine machines with the use of discrete models

SOURCE: Ref. zh. Mekhanika, Abs. 8V422

REF SOURCE: Dinamika, i prochnost' mashin. Resp. mezhved. nauchno-tekhn. sb., vyp. 1, 1965, 26-31

TOPIC TAGS: turbine blade, shaft, natural vibration, natural frequency, bending vibration, mass distribution, bending oscillation

ABSTRACT: An investigation has been made of the effect on the design values by natural frequencies of bending oscillations of a shaft and on the methods of substituting its distributed mass with several concentrated masses. Two methods are analyzed for the distribution of mass of the shaft: the mass of the section is concentrated at its center of gravity and the mass of the section is spread over its ends. It is shown that with an even division into sections the first method yields excessively-high natural frequency values, while the second produces underrated

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ACC NR: AT6034487

SOURCE CODE: UR/0000/66/000/000/0116/0122

AUTHOR: Zhuravleva, A. M. (Khar'kov); Sliva, O. K. (Khar'kov)

ORG: none

TITLE: Vibration of rotors of a disc-drum construction

SOURCE: Khar'kov. Politekhnicheskii institut. Dinamika i prochnost' mashin (Dynamics and strength of machines), no. 3, Khar'kov, Izd-vo Khar'kovskogo univ., 1966, 116-122

TOPIC TAGS: vibration analysis, rotor blade, turbine rotor

ABSTRACT: In a drum-like rotor, the rigidity of the discs and that of the shell connecting them is of the same order of magnitude, so that the condition of a rigid disc clamping (along a certain radius) is not fulfilled. The vibrations of one disc are transmitted through the shell to other discs. A rotor of this type must be considered as a single dynamic system with a complex spectrum of resonance states excited by forces originated in any of the parts of the rotor. The authors developed a method for the calculation of the vibrations of this system by using a discrete model of a shell consisting of massive rings without thickness connected by massless portions of the shell. The matrix equations of such a model are obtained by expressing the displacements of the shell along the axes  $x$ ,  $y$ ,  $z$  in spheric coordinates. The

Card 1/2



GONSKIY, G.V., kand. tekhn. nauk; SLIVA, O.K., inzh.

Investigation of the performance of a plunger coupling and the determination of the optimum value of its basic parameters. Izv. vys. ucheb. zav.; mashinostr. no.2:101-114 '63. (MIRA 16:8)

1. Khar'kovskiy politekhnicheskiy institut.

SLIVA, P.I. [deceased], dotsent

Some complications in myocardial infarct and their treatment.  
Khirurgiia 37 no.1:58-61 Ja '61. (MIRA 14:2)

1. Iz Tsentral'noy polikliniki Ministerstva zdravookhraneniya  
RSFSR (Moskva).

(HEART—INFARCTION)

(INTESTINES—OBSTRUCTION)

PROCESSES AND PROPERTIES INDEX

10

**Preparation of 3-ethyloctadecane.** S. LANDE AND V. SLIVA, *Collection Czechoslov. Chem. Communications* 4, 539-42(1932); cf. C. I. 26, 77. The method of prepn. this branched-chain hydrocarbon is analogous to that previously reported. 3-Ethyl 3-octadecanol (I) was obtained in 90% yield from Et palmitate and EtMgBr and identified by prepn. of its urethan. Dehydration of I to *ethyloctadecene* (II) by means of vacuum distn. reached only 33% but by heating equal parts of I and anhyd. ZnCl<sub>2</sub> at 115-25° 97% was dehydrated. The remaining alc. was sepl. by distn. in the presence of 1 g. Na to 40 g. of crude product. II is a colorless liquid b<sub>10</sub> 199-202°; I no. 90.56, n<sub>D</sub><sup>20</sup> 1.45585, d<sub>4</sub> 0.8040, gives an addn. compd. with Hg(OAc)<sub>2</sub> in MeOH. The position of the ethylenic linkage was established at 2 through isolation of Et pentadecyl ketone after oxidation with cold satd. KMnO<sub>4</sub> and prepn. of its oxime. 110 g. of II mixed with redbeoo Ni was treated for 15 min. with H<sub>2</sub> at 145° and an initial pressure of 120 atm. The filtered product was distd. at 12 mm. Pure 3-ethyloctadecane (III) is a colorless, odorless liquid m. -3°, b<sub>10</sub> 202°, b. 341°, n<sub>D</sub><sup>20</sup> 1.4476, d<sub>4</sub> 0.7951, heat of combustion 11 352 cal. Abs. viscosity values from 0° to 99° are given for II and III. ANNE E. WHITE

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP # 2

SECTION # 1

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ALPHABETIC INDEX

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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA BB CC DD EE FF GG HH II JJ KK LL MM NN OO PP QQ RR SS TT UU VV WW XX YY ZZ

PROCESSED AND PREPARED BY UNIT

*ca*

*21*

The analysis of cokes. *Vitálek-Siva - Týs a. Voda 15, 305-9(1935); Chem. Abstr. 12, Abstracts 118.*— S. presents complete analyses of cokes prepd. at the Prague municipal ovens from several different Czechoslovakian coals, complete analyses of many ashes left from the analyzed cokes, results from combustion tests, and detns. to show the capacity of the cokes to form shags.  
 Frank Mareš

AS 0-314 METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA BB CC DD EE FF GG HH II JJ KK LL MM NN OO PP QQ RR SS TT UU VV WW XX YY ZZ

DETERMINATION AND PREPARATION

Determination of the bromine number and the un-  
saturated hydrocarbons in benzene. Vitezslav Shva,  
*Plva, Voda zbravolni tek.* 17, 9 12 (1917); *Chem. Zentr.*  
1937, I, 3994. -- A modification of the method of Kraemer  
and Spilker for the detn. of the Br no. is given. In a  
500-cc. flask fitted with dropping funnel and glass stopper  
is placed 2 cc. benzene (the com. mixt.) when the Br no. is  
over 90, or 5 cc. when it is 45-90, or 10 cc. when it is less  
than 45. To the benzene is added in the first case 90,  
and in the other cases 40, cc. bromide-bromate soln. (10 g.  
KBr + 2.7817 g. KBrO<sub>3</sub> per l. of water). The air is  
partially exhausted from the flask, 20 cc. of 1:5 H<sub>2</sub>SO<sub>4</sub>  
added, and the flask shaken 15-30 sec. in the case of  
benzene h. up to 140° or 7-15 sec. for higher-boiling  
mixts. Immediately 10 cc. 10% KI soln. is added and the  
titration carried out with 0.1 N thiosulfate against  
starch soln. The method is more accurate than the  
H<sub>2</sub>SO<sub>4</sub> method for the detn. of olefins in benzene.  
W. A. Moore

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ASME S.L.A. METALLOGICAL LITERATURE CLASSIFICATION

E-2

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MEDICAL ABSTRACT INDEX

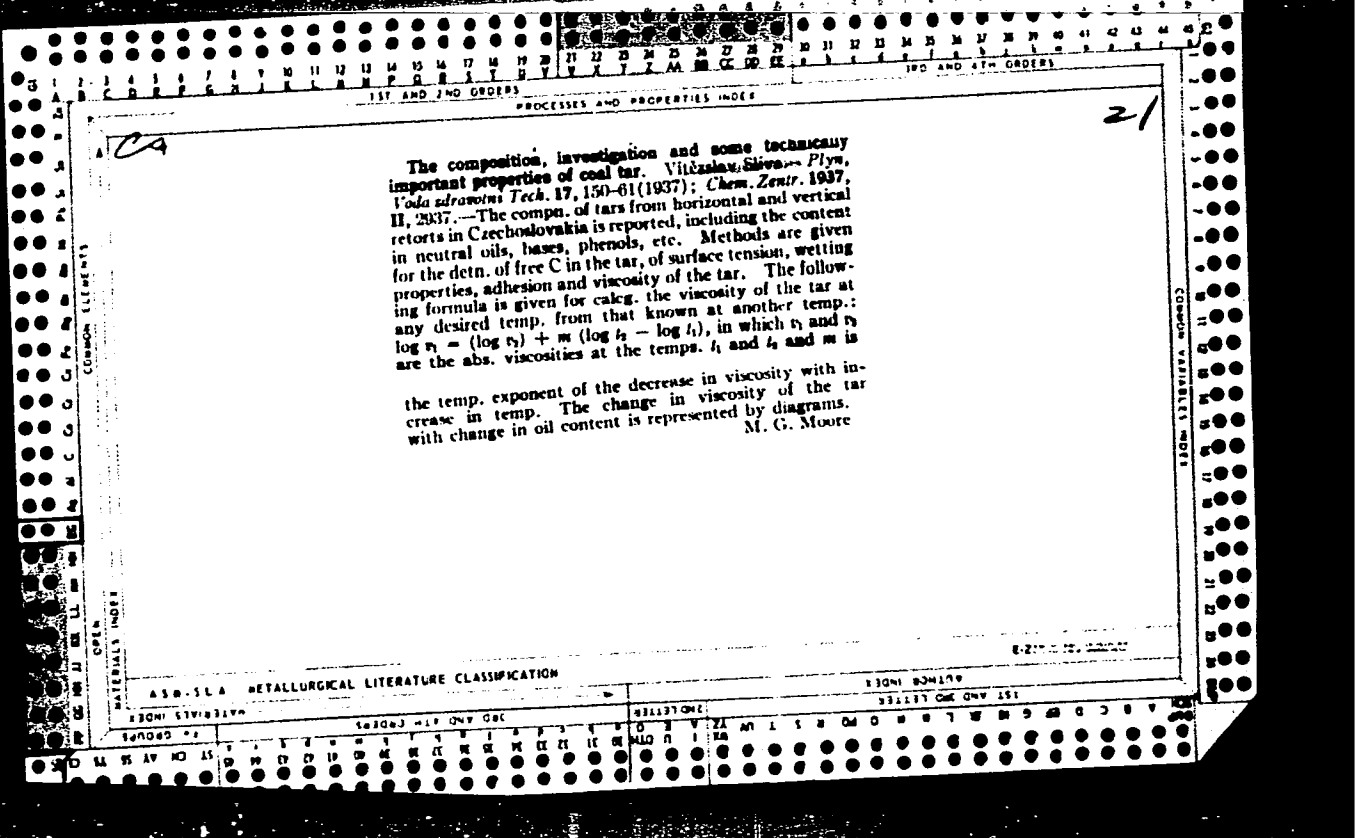
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PHYSICS ABSTRACT INDEX

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PROCEDURES AND EXPERIMENTAL DATA

21

The determination of hydrogen sulfide in illuminating gas. Vitezslav Silya, *Průmysl. Voda Zdravotní Tech.* 18, 49-51 (1939) *Chem. Zentr.* 1938, II, 988 D. A suitable app. is described for the detn. of small amts. of H<sub>2</sub>S (0.001 vol.-%) in illuminating gas with the use of Pb(OAc)<sub>2</sub> paper. By means of an app. similar to a shortened manometer the gas is passed over filter paper impregnated with 10% Pb(OAc)<sub>2</sub> at the rate of 150 l./hr. In the presence of 0.01 g. H<sub>2</sub>S per cu. m. of gas the paper becomes definitely colored and the concn. of the H<sub>2</sub>S can be estd. from the intensity of color. When larger amts. of H<sub>2</sub>S are present in the gas, a gas pipet of 0.5-1.5 l. capacity is filled with the gas, the temp. and pressure detd., and then 25 cc. of a 5% soln. of Cd(OAc)<sub>2</sub> introduced into the pipet. After thorough shaking, the pipet is emptied into a flask and 3 drops concd. HOAc, 25-50 cc. 0.01 N I soln. and 10 cc. dil. H<sub>2</sub>SO<sub>4</sub> added. After the soln. has stood for 5 min. it is titrated with 0.01 N Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>. W. A. Moore

METALLURGICAL LITERATURE CLASSIFICATION

ASTM - S.L.A.

GROUP # 1

SUBGROUP # 1

CLASSIFICATION

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

LIST AND 2ND ORDER PROCESSES AND PROPERTIES INDEX

21

Direct cooling of crude oven gas at the oven and its influence on secondary cooling and recovery of ammonia liquor. *Vitkoslav Skva. Plys, Voda obraboti Tech. 21, 1-6(1941); Chem. Zvest. 1941, 1, 3406.*—Water requirement for sprays in the gas off-take pipes is 3.3 to 5 l. per cu. m. for cooling gas from about 600° down to 80-95°. This vol. of water would not be sufficient if it were not for the heat of vaporization. About 0.4 kg. of water per cu. m. of gas or about 8% of the water, is carried away. A disadvantage of the use of NH<sub>3</sub> liquor for this purpose is that NH<sub>3</sub> is freed, and the NH<sub>3</sub> content of the gas increases to 2- or 3-fold. This overloads the NH<sub>3</sub> scrubber, so that the ammonia-liquor concn. falls and the NH<sub>3</sub> content of the purified gas exceeds permissible limits. Hence the NH<sub>3</sub> liquor from scrubbers and coolers should be kept sep. from the water sprayed into the oven off-take, and air coolers should be used to keep the vol. down, and thus increase the NH<sub>3</sub> concn. Condensate from the foul mains and the air cooler should be added to the spray water. Operating data for concn. and volume of NH<sub>3</sub> liquor are compared with calcd. values.

R. W. Ryan

COMMON ELEMENTS

MATERIALS INDEX

ASME-5 LA METALLURGICAL LITERATURE CLASSIFICATION

ALPHABETIC INDEX

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F

938. UNDERGROUND GASIFICATION OF COAL. Sliva, V. (Paliha a Voda, Feb. 1948, vol. 28, 34-44). The author outlines the history of underground gasification, describes four gasification methods, and indicates how they may be combined. He discusses technical difficulties in boring, methods of determining temperatures and the situation of fire, the behaviour of ashes and of neighbouring layers, losses of heat to the neighbourhood and the possibility of enrichment of the ingoing air by oxygen. A list of references is appended. (L)

ca

21

Reformation of natural gas. Vitěslav Štíva. *Falun a*  
*tsda* 28, 323-30 (1948).—A crit. study is presented of the en-  
 richment of natural or cracked refinery gases high in paraf-  
 fins for production of H<sub>2</sub>, liquid fuels, or NH<sub>3</sub>. The crack-  
 ing method in Glower-West retorts is given in detail.  
 The retorts are vertical and contain coke. A mixt. of gas  
 and steam is led over heated coke (1200-1250°) and the  
 resulting gas has the following compn.: 7.2 CO, 0.6 O,  
 18.0 CO, 63.2 H, 4.0 CH<sub>4</sub>, and 7.0% N<sub>2</sub>. The heat value  
 is approx. 2875 to 2900 kcal. Conversion in the retorts  
 is 84%.  
 Joseph Lederer

ASME-SLA METALLURGICAL LITERATURE CLASSIFICATION

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F

G

3847. USE OF PROPANE OR BUTANE FOR PEAK LOAD PERIODS IN GAS INDUSTRY.  
Sliv, V. and Holtscher, K. (Paliva (Fuel), Feb. 1951, vol. 31, 26-33).  
A description is given of a propane-air cracking gas producer. This  
producer can also be used, with slight modifications, for butane-air or  
propane-oxygen (eventually butane-oxygen) cracking. The authors attribute  
great importance to the cracking of hydrocarbon-oxygen mixtures in order to  
achieve a high production. (L).

BA

BJ  
2

Use of natural gas in gas-coking. V. Silva (Petro. 1961, 81, 222-226, 228-230).—Methods of using natural gas for carburizing water-gas or coal gas to produce town's gas of approx. the same calorific value are discussed. Alternatively, the natural gas may be added to town's gas to give a gas of higher calorific value, the use of which may necessitate some changes in the consumer appliances. Practice in other countries is reviewed. H. TAUBER.

SLIVA - V

Directivos for handling of waste waters from carbonization gas works. V. Sliva. *Palma* 32, 100-13(1963).—Various methods were suggested to purify waste waters from gas works processes. Jos. Lederer

SLIVA, V.

Riedl, R.; Sliva, V. "New Methods for Storing Large Amounts of Gas." p. 154  
(Paliva, Vol. 33, no. 7/8, July/Aug. 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 2, Library of Congress,  
Feb. 1954, Uncl.



SLIVA, V. - Paliva - Vol. 35, no. 2, Feb. 1955.

Udo Becher's Handbook of Gas Utilization; a review. p. 64.

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

SLIVA

POLAND / Physical Chemistry. Kinetics, Combustion,  
Explosions, Topochemistry, Catalysis.

B

Abs Jour: Ref Zhur-Khimiya, No 16, 1958, 53014.

Author : Tshebyatovsky, Kubitskaya, Sliva.

Inst : Not given.

Title : The Structure and Magnetic Properties of Palladium  
Contacts with  $\gamma$ -Al<sub>2</sub>O<sub>3</sub> as a Carrier.

Orig Pub: Roczn. chem., 1957, 31, No 2, 497-515.

Abstract: Pd-contacts were prepared which did not contain even traces of ferromagnetic substances. Their palladium concentration was 0.45-9.1%. As a carrier, a dimagnetic  $\gamma$ -Al<sub>2</sub>O<sub>3</sub> was used. Their magnetic contacts susceptibility (at temperatures

Card 1/2

SLIVA, V.

Main trends in the development of the preparation and coking sector. p. 249.

PALIVA. (Ministerstvo paliv a Ceskoslovenska vedecka technicka spolecnost pro vyuziti paliv pri Ceskoslovenske akademii ved) Praha, Czechoslovakia, Vol. 39, no. 8, August 1959.

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

uncl.

SLIVA, V., doc., dr.inz.; ODEHNAL, S., inz.

Evaluation of resources from the viewpoint of the gas industry  
development. Paliva 43 no.8:233-237 Ag'63.

SLIVA, V., inz. dr., doc.

Level and effectiveness of gas consumption in households  
and public buildings. Paliva 43 no. 12: 361-364 D '63.

L 34430-66 T/EWP(t)/ETI IJP(c) JD

ACC NR:AP6026198

SOURCE CODE: CZ/0034/65/000/011/0789/0795

AUTHOR: Dedek, Vladimir (Engineer); Michl, Vladimir--Mikhl', V. (Engineer);  
Sliva, Milan (Engineer)

29  
B

ORG: VZKG, n.p., Ostrava

TITLE: Reheating conditions of process and intermediate annealing and their effect on the deep-drawing properties of low-carbon strip steels

SOURCE: Hutnicke listy, no. 11, 1965, 789-795

TOPIC TAGS: low carbon steel, annealing, cold rolling, metal drawing

ABSTRACT: The article reports on an investigation of cold rolled annealed deep-drawing strip steels regarding the feasibility of improving their structural and plastic properties by arrangement of the reheating conditions in the final process annealing as well as by intermediate annealing during the cold rolling. Orig. art. has: 2 figures and 8 tables. [Based on authors' Eng. abstract] [JPRS: 33,732]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 001

Cord 1/1 *Dis*

UDC: 621.785.3: 669.14.018.26  
0916 1746

I 34942-66 EWP(k)/EWP(h)/EWP(w)/EWP(v)/EWP(t)/EWP(l)/ETI/TF JD: = #  
ACC NR: AP6026604 SOURCE CODE: CZ/0057/65/000/012/0533/0537

AUTHOR: Sliva, Milan (Engineer); Zidek, Milan (Docent; Engineer; Candidate of sciences)

ORG: Klement Gottwald Vitkovice Iron Works, Ostrava (Vitkovicke zelezarny XG) <sup>37</sup><sub>8</sub>

TITLE: Influence of the diameter of rolls upon the mechanical properties of cold rolled steel belts

SOURCE: Hutnik, no. 12, 1965, 533-537

TOPIC TAGS: mechanical property, cold rolling, carbon steel, metal deformation

ABSTRACT: The mechanical strength of the steel increases with increasing diameter of the rollers. The difference is greater in steels containing higher amounts of carbon, and increases also with increasing degree of deformation. When the diameter of the rollers changes in the ratio of 8:1, the difference in the strength varies by 4-5,000 kg / mm<sup>2</sup>; the difference in steels with high carbon content is approximately twice that. A substantial increase in strength is achieved by increasing the rolling pressures in cases where high carbon content steels have deformation on the order of 40-50%. Orig. art. has: 4 figures and 4 tables. [JPRS: 34,519]

SUB CODE: 11, 20 / SUBM DATE: none / ORIG REF: 002

Card 1/1 *By*

0916 2300

GOL'DSHTEYN, L.Ya.; SLIVA, Ya.

Analysis of the mineralogical composition of fused portland-  
cement clinkers. Trudy Giprotsement no.24:26-35 '62.  
(MIRA 16:4)

(Cement clinkers--Analysis)



KOZLOVSKIY, G.I. [Kozlovs'kyi, H.T.]; NOVIKOVA, Z.M. [Novykova, Z.M.];  
GOLUBCHIK, S.A. [Holubchik, S.A.]; SLIVA, Yu.D. [Slyva, IU.D.]

Processing of nonmalt products with high protein content  
in the brewing industry. Khar.prom. no.1:41-44 Ja-Mr '62.  
(MIRA 15:8)

1. UkrNDIKhP (for Kozlovskiy, Novikova).
2. Khar'kovskiy pivovarenny zavod No.1 (for Golubchik, Sliva).  
(Brewing)

SLIVAK, I. M.

Slivak, I. M.

"Planning the Limits of the Region of Attraction of Automobile Roads."  
Min Higher Education USSR. Khar'kov Automobile and Road Inst. Khar'kov,  
1955. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya letopis', No. 27, 2 July 1955

LAGUNOV, L.Ya.; SLIVAK, I.M.

Organizing automobile traffic surveys. Avt.dor. 20 no.8:21-22  
Ag '57. (MIRA 12:4)

(Traffic surveys)

SLIVAK, I.M., kand.tekhn.nauk

Actual and calculated traffic intensity. Avt.dor. 21 no.11:28-29  
N '58. (MIRA 11:12)

(Traffic engineering)

SLIVAK, I., kand. tekhn. nauk

Methods and results of inspecting intercity transportation.

(MIRA 11:12)

Avt. transp. 36:6-7 D '58.

(Transportation, Automotive)

SLIVAK, I., kand.tekhn.nauk

Motorbus transportation in districts of the mining industry.  
Avt.transp. 38 no.1:14-15 Ja '60. (MIRA 13:5)  
(Donets Basin--Motorbus lines)  
(Lvov-Volyn' Basin--Motorbus lines)

SLIVAK, I.M., kand.tekhn.nauk

Economic efficiency of motorbus traffic in mining regions.  
Trudy MIEI no.16:85-90 '61. (MIRA 14:12)  
(Motorbus lines—Cost of operation)

SLIVAK, I.M., kand.tekhn.nauk; SHEYNIS, G.I.

District planning and design of road network. Avt.dor. 26 no.9:  
21 S '63. (MIRA 16:10)



SLIVAK, I.N., kand.tekhn.nauk

Coordinate the work of road constructors and city builders.  
Avt.dor. 26 no.10:31-32 0 '63. (MIRA 16:11)

1. Uchenyy sekretar' seksii avtomobil'nykh dorog Soveta po ko-  
ordinatsii nauchnykh rabot Akademii stroitel'stva i arkhitektury  
UkrSSR.

USPENSKIY, V.K., glav. red.; TER-ARUTYUNYANTS, G.O., zam. glav. red.; AHR-BARAMYAN, Ya.A., red.; BOGORAD, D.I., red.; KAPLAN, L.Z., inzh., red.; MALYSHENKO, G.A., red.; MEZENTSEV, I.V., red.; BONDARENKO, .I., red.; NELYUBIN, K.P., red.; GREKHOV, V.M., red.; FOGREBOV, S.N., red.; SLIVAK, I.M., kand. tekhn. nauk, red.; STANISLAVSKIY, A.I., red.; SLUTSKIY, G.M., red.; SOLOFNENKO, N.A., red.

[Transportation and engineering facilities of cities; an aid to designers] Transport i inzhenernoe oborudovanie gorodov; v pomoshch' proektirovshchiku. Kiev, Budivel'nyk, 1964. 100 p. (MIRA 18:5)

1. Ukrainskiy gosudarstvennyy institut proyektirovaniya gorodov. 2. Gosstroy SSSR (for Kaplan, Grekhov). 3. Gosstroy USSR (for Fogrebov). 4. Kiyevskiy inzhenerno-stroitel'nyy institut (for Slivak). 5. Kiyevskiy Gosudarstvennyy institut proyektirovaniya gorodov (for Uspenskiy, Ter-Arutyunyants, Malysenko, Mezentsev, Bondarenko). 6. Leningradskiy Gosudarstvennyy institut proyektirovaniya gorodov (for Nelyubin). 7. Tsentral'nyy nauchno-issledovatel'skiy i proyektnyy institut po gradostroitel'stvu, Moskva (for Solofnenko). 8. Kiyevskoye upravleniye po proyektirovaniyu zhilishchno-grazhdanskogo i kommunal'nogo stroitel'stva (for Slutskiy).

SLIVANOVA, A. F.

"Results of Introducing the Immediate System of Operation in Interurban Telephone Communications," Vest. svyazi, No.8, p. 20, 1953

Chief, Production Control Service of TsMTS

Translation No. 544, 30 Apr 56

SLIVANOVA, N.M.

Approximate calculation of the standard isobar free energies of  
formation of selenates. Zhur. neorg. khim. 8 no.8:1826-1830  
Ag '63. (MIRA 16:8)

(Selenates--Thermodynamic properties)  
(Heat of formation)

SLIVANSKAYA, A.G., kandidat tekhnicheskikh nauk; CHUNIKHIN, A.A., dotsent,  
kandidat tekhnicheskikh nauk

Calculation of the dynamic tractive characteristic of the direct-current electromagnet. Trudy MEI no.15:188-207 '55. (MIRA 8:11)

1. Kafedra elektricheskikh apparatov Moskovskogo ordena Lenina  
energeticheskogo instituta imeni V.M.Molotova  
(Electromagnets)

LAPOTYSHKIN, N.M.; SLIVCHANSKAYA, V.V.; KOKAREKO, N.M.; FADEYEV, P.V.;  
PRAVDINA, T.E.

Rolling electrical steel slabs prepared by continuous casting on  
strip mills with hot reellers. Biul.TSIICHM no.4:38-40 '61.  
(MIRA 14:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy  
metallurgii (for Lapotyshkin, Slivchanskaya). 2. Novolipetskiy  
metallurgicheskiy zavod (for Pravdina).  
(Rolling (Metalwork))

СЛИВЧАНСКАЯ, В.В.

S/133/62/000/001/002/010  
A054/A127

AUTHORS: Lapotyshkin, N. M., Boychenko, M. S., Candidates of Technical Sciences, Leytes, A. V., Akimova, Ye. I., Slivchanskaya, V. V., Engineers

TITLE: Special features of crystallization in continuous casting

PERIODICAL: Stal', no. 1, 1962, 30 - 33

TEXT: There is no definite opinion concerning the effect of the crystallization rate on the grain structure and chemical composition of continuous castings. To solve this problem, tests were carried out at the TsNIIChM and a new method was applied to determine the crystallization rate, which is based on the distance between the dendrite axes: when the solidification rate is increased, the interaxial distance between secondary dendrites decreases. The tests were carried out with carbon steel and transformer steel. To obtain a clear picture of the dendritic structure, the carbon steels were water-hardened at 950 - 1,050°C and annealed (in water) at 650°C. The crystallization rate at various depths was also checked by introducing the radioactive isotope of sulfur ( $S^{35}$ ), for "45" and Cr .3 (St.3) steels, poured at a 0.7 m/min rate in crystallizers, 200 x 200 mm

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S/133/62/000/001/002/010  
AG5A/A127

Special features of...

any cooling) were also studied. In these tests, 4 heats of "45" steel and Y 7 (87) steel were investigated. The increase in temperature during the pouring of 87 steel slightly reduced the crystallization rate. An increase in the pouring rate (from 0.5 to 0.7 m/min) decreased the solidification rate by about 0.3 cm/min. As to the intensity of secondary cooling, it was established that if 2 l/sec cooling water (0.5 l per 1 kg steel) were consumed, the solidification rate somewhat increased, while upon raising the water consumption to 5 l/sec, this had no effect on the average solidification rate. The relation between the crystallization rate in the cross section of the ingot, the structure and the distribution of non-metallic inclusions was studied in 200 x 200 mm continuous castings. The distribution of inclusions depended in the first place on the arrangement of structural zones. The smallest amount of inclusions was found in the fine-grained zone of the skin, while the amount of inclusions increased in the zone of acicular grains and still more in the transient zone between acicular and spheroidal grains. Dendritic liquation was studied in continuous and standard castings of transformer steel with 4.2 - 4.4% Si content, by comparing the microhardness of the dendrite axes and of the interaxial zones. Greater hardness was observed for the interaxial zones than for the axial parts. The differences in  $\Delta H_B$  indicated the degree of dendritic liquation, which was higher for the standard castings than

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S/133/62/000/001/002/010  
A054/A127

Special features of...

for the continuous ones. The  $\Delta H_B$  values gradually decreased starting from a depth of 60 mm below the surface to the central sections. In continuous castings, the dendritic non-homogeneity was lower than in the standard castings. There are 4 figures and 11 references: 7 Soviet-bloc and 4 non-Soviet-bloc. The reference to the English-language publication reads as follows: D. M. Lewis, I. George, Metallurgical Reviews, 1956, v. 1, pt. 1.

Card 4/4

ACCESSION NR: APh014250

S/0133/64/000/002/0128/0131

AUTHORS: Slivchanskaya, V. V.; Itskovich, G. M.; Sautkin, N. I.

TITLE: Structural characteristics of a continuous ingot made of low carbon boiling steel

SOURCE: Stal', no. 2, 1964, 128-131

TOPIC TAGS: steel, melting process, pouring process, continuous pouring, ingot structure, steel ingot surface crust, bubble zone in ingot, ingot central zone

ABSTRACT: This study of continuous steel ingots made of low-carbon boiling steel showed that their structure was characterized by the presence of three zones: the external crust, the bubble zone, and the internal core. The zone of the secondary bubbles and the transition zone were absent. It was established that: 1) different structure of the crust could be obtained by regulating the intensity of metal boiling in the crystallizer; 2) gas bubbles were formed at the border of solid and liquid phases; 3) the channels were formed as the result of liquid movement away from the interdendritic spaces and toward the gas bubble during its emerging; 4) the structure in the region of gas liquefaction proved the periodical nature of crystallization; 5) the layered structure observed in the bubble zone consisted of  
Card 1/2

SLAVENKO, V.

The collective can handle everything. Grazhd. av. 19 no.5:  
15 My '62. (MIRA 13:6)

1. Sekretar' komiteta Vsesoyuznogo Leninskogo kommunisticheskogo  
soyuza molodezhi Yuzhno-Sakhalinskogo aeroporta.

SLIVETS, D.I. (Dnepropetrovsk); MAL'CHENKO, V.P. (Dnepropetrovsk)

Progressive scientist. Put' 1 put. khoz. 9 no.10: 36-37 '65.  
(MIRA 18:10)

SLIVETS, D.P.; KOZACHENKO, A.D., inzh. (Dnepropetrovsk)

Frogs have to be rectilinear. Put' i put. khoz. 9 no.12:12 '65.  
(MIRA 19:1)

1. Nachal'nik puteobsledovatel'skoy stantsii, Dnepropetrovsk  
(for Slivets).

DOBRE, Gh., ing.; GENUSA, C., ing.; SLIVILESCU, M., ing.

Aspects of the coal industry in Poland recorded during the  
visit of a group of Rumanian specialists. Rev min 13  
no.9:429-436 S '62.

GRIBKOV, Valentin Alekseyevich; GRIGOR'YEV, Pavel Vasil'yevich; SARIN,  
Valeriy Ivanovich; SLIVIN, Grigoriy Andreyevich; CHERMPASHNEETS,  
R.G., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Narrow-gage TU2 diesel locomotive] Uzkokoleinyi teplovoz TU2.  
Moskva, Gos. transp. zhol-dor. izd-vo, 1958. 222 p. (MIRA 12:1)  
(Locomotives)

TRUKHMANOV, L.L., konstruktor; SLIVIN, G.A., konstruktor

Eliminating the malfunction of three-rotor snow plows. Put'  
i put.khoz. 4 no.2:38-39 F '60. (MIRA 13:5)  
(Railroads--Snow plows)



SLIVIN, P

Freezer Plant

Sovnarkhoz USSR Discusses Specialization in Machine Tool Production

The following persons participated in the discussion of the reports:

P Slivin, Director of the Freezer Plant in Moscow

(Ekonomicheskaya Gazeta, 6 Jul 63)

SO: CIA, FDDS #4843, Survey of the Soviet Press (319), 22 Jul 63, OFFICIAL USE ONLY.

SLIVIN, Yu.A.; KHEYFETS, M. Ye.

Method for precise determination of pendulum oscillation  
periods. Trudy TSNIIGAİK no.139:89-101 '60.. (MIRA 14:7)  
(Pendulum)

GERENBURG, L.A.; SLIVIN, Yu.A.; KHEYFETS, M.Ye.

Expeditionary quartz chronometer manufactured at the Gravimetric  
Laboratory of the Central Scientific Research Institute of  
Geodesy, Aerial Photography, and Cartography. Trudy  
TSNIGAİK no.139:121-134 '60. (MIRA 14:7)  
(Chronometer)

L 34901-65 EWT(1)/EWT(m)/ENP(w)/ENG(v) Fe-5/Po-4/Pq-4/Pg-4 EM/GH

ACCESSION NR: AT5006344

S/2547/64/000/159/0061/0078

AUTHOR: Slivin, Yu. A.

TITLE: Photoelectric observation of the period and amplitude of oscillation of a pendulum <sup>46</sup><sub>41</sub> Br 76

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, aers"yemki i kartografii. Trudy, no. 159, 1964. Issledovaniya po gravimetrichesk priborostroyeniyu (Research on gravimetric instrument manufacture), 61-78

TOPIC TAGS: photoelectron multiplier, pendulum motion, pendulum mechanics, amplitude calibration, light amplifier, cascade generator

ABSTRACT: The author reviews previous efforts by various scientists in measuring the motion of a pendulum, all of which require computation work to reduce the measurements. The photoelectric method based on the Vening-Meinez principle was first developed in 1961 at TsNIIGAik. This method is clarified by describing the functions of the main components of the apparatus: optical amplification, conversion of a light pulse from the pendulum into an electrical impulse, forming cascades generating the trigger pulse, the trigger circuit, the square wave signal generator used for calibration of the pendulum's motion, the electronic computing

Card 1/2

L 34901-65

ACCESSION NR: AT5006344

5

device, as well as the functional interrelationship of all of these components. The apparatus was tested in the laboratory using a simulated pendulum. An instrumental error due to mismatched electron tubes was revealed, however after further refinements the error in the measurement of the period of oscillation will be of the order of  $\pm 6-7 \times 10^{-9}$  sec. The use of the photoelectric method will considerably reduce the amount of computation required to reduce the data obtained in pendulum investigations and geophysical determinations at gravimetric stations. The apparatus was designed by Engineer N. A. Gusev and Senior Technician Yu. A. Moiseyev. The final adjustments and operation of the apparatus were done by Senior Technicians E. I. Gamayev, L. I. Klimov and U. I. Yermakov. Orig. art. has: 4 formulas, 15 figures, 1 table.

ASSOCIATION: Gravimetriceskaya laboratoriya 'tsentral'nogo nauchno-issledovatel'skogo instituta geodezii aeros'yemki i kartografii (Gravimetric Laboratory of the Central Scientific Research Institute of Geodesy, Aersurvey and Cartography)

SUBMITTED: 100

ENCL: 00

SUB CODE: ME, EM

NO REF SOV: 013

OTHER: 000

Card 2/2

L 34902-65 EWT(1)/EWT(m)/EWG(v)/ENP(w) Pe-5/Po-4/Pq-4/Pg-4 EM/GW

ACCESSION NR: AT5006345

S/2547/64/000/159/0079/0084

AUTHOR: Kogan, M. G.; Slivin, Yu. A. 67

TITLE: Constancy of a single period of oscillation of a gravimetric pendulum 74 3081

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, aerost'yemki i kartografii. Trudy, no. 159, 1964. Issledovaniya po gravimetricheskomu priborostroyeniyu (Research on gravimetric instrument manufacture), 79-84

TOPIC TAGS: pendulum mechanics, pendulum motion, gravimetric analysis, oscillation amplitude, oscillation equation, photoelectric method, amplitude calibration

ABSTRACT: Improvements in experimental techniques have resulted in a considerable increase in the time resolution of the motion of a pendulum. The uniformity of a single period of oscillation of the pendulum becomes an important factor in determining the observation time. The article presents a method of observing a single period of the oscillation of a pendulum which was developed at the gravimetric Laboratory of TsNIIGAiK. This was achieved by calibrating the pendulum's period of oscillation on an oscilloscope using a 1 kilocycle per second calibration signal as well as other fixed frequencies. The author describes the stability control of the frequency of the calibration signal and the accuracy of photoelectric detector.

Card 1/2

L 34902-65

ACCESSION NR: AT5006345

The Vening-Meinez method was used during the observations. The oscilloscope's sweep signal was synchronized with the 1, 10 and 100 kc output of a number 7 quartz chronometer in the gravimetric laboratory of the institute with a stability of 1 part per  $3 \cdot 10^{-8}$ . Thus the rms value of the fluctuation during one period of the pendulum is  $\pm 51$   $\mu$ sec for half-second period pendulums and  $\pm 25$   $\mu$ sec for 1/4-second period pendulums. Orig. art. has: 3 figures, 4 tables, 1 formula.

ASSOCIATION: Gravimetriceskaya laboratoriya tsentral'nogo nauchno-issledovatel'skogo instituta geodezii, aeros"yemki i kartografii (Gravimetric Laboratory, Central Scientific Research Institute of Geodesy, Aersurvey and Cartography)

SUBMITTED: 00

ENCL: 00

SUB CODE: ME, EC

NO REF SOV: 001

OTHER: 000

Card 2/2

ACCESSION NR: AP4036838

S/0286/64/000/009/0079/0079

AUTHOR: Kheyfets, M. Ye.; Slivin, Yu. A.

TITLE: A method for determining the amplitude of pendulum oscillations and a device for carrying out this method. Class 42, No. 162329

SOURCE: Eyul. izobr. i tovar. znakov, no. 9, 1964, 79

TOPIC TAGS: pendulum, oscillation, pendulum oscillation, oscillation amplitude, pendulum oscillation amplitude, amplitude determination, oscillation amplitude determination, pendulum oscillation amplitude determination

ABSTRACT: 1. This author's certificate introduces a method for determination of the amplitude of pendulum oscillations with the use of a photocell which fixes the moments of passage of the pendulum in various elongation angles, the linear or angular differences of which are known. The commands for closing the relay which moves the shutter which opens the slots corresponding to the known elongation angles are transmitted when the pendulum passes through the equilibrium position.

2. A device for carrying out the described method. In order to make it possible to measure the amplitude photoelectrically with the photoelectric determination of the

Card 1/2



ACCESSION NR: AP4036838

pendulum oscillation periods, two additional slots are cut in the diaphragm which covers the phototube cathode, symmetrical with the slots which are used for determination of the pendulum oscillation period.

ASSOCIATION: none

SUBMITTED: 16Apr63

DATE ACQ: 02Jun64

ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

Card 2/2

KOGAN, M.G.; LIVIN, Yu.A.

Concerning the constancy of the period of a single oscillation of  
a gravimetric pendulum. Trudy TSNIIGAIK no.159r79-84 '64.  
(MIRA 17:12)

L 60218-65 EWT(1)/EWG(v) Po-4/Pa-5/Pq-4, i-4 GW

ACCESSION NR: AP5019055

UR/0286/65/000/012/0083/0083

AUTHORS: Kheyfets, M. Ye.<sup>44</sup>; Malakhov, B. M.<sup>44</sup>; Slivin, Yu. A.<sup>44</sup>; Sinyagovskiy, B. P.<sup>44</sup>  
Yefimov, B. V.<sup>44</sup>

53  
B

TITLE: A method for measuring the force of gravity at sea. Class 42, No. 172068

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 83

TOPIC TAGS: gravitation, gravitation field, gravity acceleration, gravimeter

ABSTRACT: This Author Certificate presents a method for measuring the force of gravity at sea with a gravimetric apparatus stabilized in the plane of the absolute horizon. The apparatus moves in respect to the ship under the influence of the impinging horizontal accelerations. To simplify the compensating devices, to improve the accuracy of measurements taken with the apparatus, and to make the operations possible in rough seas, the gravimetric apparatus (the sensitivity of which to the fluctuating horizontal gravity accelerations changes in various directions from zero to some maximum value) is so oriented that the direction of its maximum sensitivity to the horizontal acceleration becomes parallel to the greatest component of the ship's horizontal accelerations. The apparatus is then moved only in this direction under the action of the gauges indicating the horizontal.

Card 1/2

L 60218-65

ACCESSION NR: AP5019055

acceleration and its first derivative. The gauges are placed on the apparatus and on its unstabilized support.

ASSOCIATION: none

SUBMITTED: 14 May 64

ENCL: 00

SUB CODE: ES, IE

NO REF SOV: 000

OTHER: 000

*dm*  
Card 2/2

L 62837-65 EWT(1)/EWG(7) Po-4/Pe-5/Pq-4/Pg-4 GW

ACCESSION NR: AP5019054

UR/0286/65/000/012/0083/0083  
550.831

AUTHOR: Slivin, Yu. A.; Kheyfets, M. Ye.

TITLE: A pendulum for gravimetric measurements. Class 42, No. 172067

SOURCE: 'Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 83

TOPIC TAGS: gravimetric measurement, <sup>1M</sup> measuring instrument, pendulum <sup>18</sup>

ABSTRACT: This Author's Certificate introduces: 1. A pendulum for gravimetric measurements. The device contains a rod, a stirrup and a lens-shaped metal bob. Measuring accuracy is improved by making the bob of tungsten or alloys of tungsten with a specific weight of more than 18 g/cm<sup>3</sup>. 2. A modification of this pendulum in which the tungsten alloy for the bob has the following composition: tungsten--94%; copper--3.2%; nickel--2.8%.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut geodezii, aeros'yemki i kartografii (All-Union Scientific Research Institute of Geodesy, Aerial Photography and Cartography)

Card 1/3

L 62837-65

ACCESSION NR: AP5019054

SUBMITTED: 08Jun64

NO REF SOV: 000

ENCL: 01

OTHER: 000

SUB CODE: ES

0

Card 2/3

L. 62837-65

ACCESSION NR: AP5019054

ENCLOSURE: 01

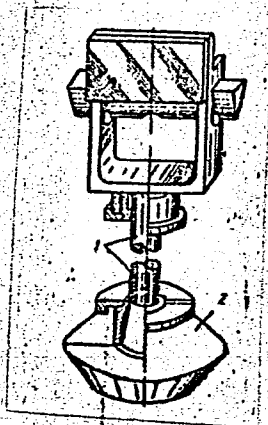


Fig. 1. 1--quartz rod;  
2--metal bob

*bob*  
Card 3/3

L 3541-66 EWT(1) GW

ACCESSION NR: AP5024410

UR/0286/65/000/015/0089/0090

AUTHORS: Kheyfets, M. Ye.; Terekhov, V. P.; Slivin, Yu. A.; Zdobnikov, Ye. I.; Ivanova, A. A.; Berezin, E. M.

TITLE: Device for measuring the gravitational force. Class 42, No. 173435

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 89-90

TOPIC TAGS: gravimeter, submarine

ABSTRACT: This Author Certificate presents a device for measuring the gravitational force from submarines and drifting ice. The device contains three quartz-metal pendulums mounted on the base plate of a thermostated support placed in an arrested Cardan suspension, arresting and locking devices for the pendulums, thermometers, a hygrometer, a triggering lever for each pendulum, a device for applying time marks to the photorecord of the pendulum oscillations, a control panel, and perturbing acceleration detectors. To increase the accuracy of the measurements and to simplify their processing, additional mirrors are mounted on the support plate so that the images of the transmitting diaphragms reflected from the outer pendulums are produced in the focal plane of the objective (see Fig. 1 on the Enclosure). To insure the uniform setting of the pendulums on the Card 1/3



L 3541-66

ACCESSION NR: AP5024410

axis of the arresting device, a template is installed which imparts a forward motion to a stop spring. The spring is kinematically coupled to the template and presses the end part of the pendulum knife edge onto a fixed support rigidly coupled to the support plate. For remote control of the pendulums, electric drives are mounted on the support, which are controlled from the panel and are kinematically coupled to the arresting and locking devices and the stop spring. To control the initial amplitudes and phases of the oscillation of the middle pendulum, an additional triggering lever with a driving frame is installed. To maintain the position of the center of gravity of the device when rewinding the film, a compensator is installed. The compensator is in the form of a weight moving with film feed along a screw which is kinematically coupled to the axle of the film spool. To simplify the arresting of the Cardan suspension, the arrestor in the form of a screw with a control wheel clamps the outer ring of the Cardan suspension through a plate of the inner ring to the support on the stand. To record the readings of a mercury thermometer on the common photorecord, an anamorphic adaptor is mounted on the support. Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 19Feb63

NO REF SOV: 000

Card 2/3

ENCL: 01

OTHER: 000

SUB CODE: ES

L 3541-66  
ACCESSION NR: AP5024410

ENCLOSURE: 01

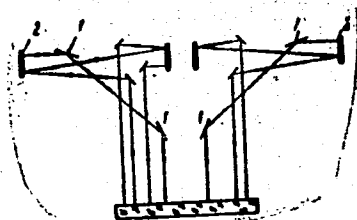


Fig. 1. 1- additional mirrors;  
2- outer pendulums

*mlr*  
Card 3/3

BABIKOV, Maksim Alekseyevich, doktor tekhnicheskikh nauk; SLIVINSKAYA, A.G.,  
redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor

[Electric apparatus] Elektricheskie apparaty. Moskva, Gos. energ. izd-vo.  
Pt. 2.. [Low-voltage apparatus] Apparaty nizkogo napriazheniia. 1956.  
376 p. (MIRA 10:1)

(Electric apparatus and appliances)

SLIVINSKAYA, A. G.

112-3-5127

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,  
Nr 3, p. 9 (USSR)

AUTHOR: Slivinskaya, A.G.

TITLE: Permeability of Cylinders and Prisms as a Function  
of Their Shape (Pronitsayemost' formy tsilindrov i  
prizm)

PERIODICAL: Tr. Mosk. energ. in-ta, 1956, Nr 16, pp. 67-81

ABSTRACT: The values of the coefficient of demagnetization  
available in literature pertain to comparatively  
long rods. The search for materials possessing a  
high value of coercive force made it necessary to  
conduct investigations of magnetic permeability as  
a function of shape, or of the coefficient of  
demagnetization of cylindrical and prismatic rods  
and hollow cylinders for the value  $l/\sqrt{S} < 3$   
( $l$  - length;  $S$  - cross-sectional area).  
Cylindrical and prismatic rods and hollow cylinders  
were investigated. The experimental technique is  
described, and a formula is given for computing the  
coefficient of demagnetization on the basis of the  
experimental data, which are presented in tables

Card 1/2

SLIVINSKAYA, A.G.

112-3-5128

Translation from: Referativnyy Zhurnal, Elektrotekhnik, 1957, Nr 3, p. 9  
(USSR)

AUTHOR: Slivinskaya, A. G.

TITLE: Investigation of the Permeance of Air Gaps Formed by  
Conical and Truncated Conical Surfaces (Issledovaniye  
magnitnoy provodimosti zazorov, obrazovannykh konicheskimi  
i usechennymi konicheskimi poverkhnostyami)

PERIODICAL: Tr. Mosk. energ. in-ta, 1956, Nr 16, pp. 82-98

ABSTRACT: Air gaps formed coaxially by conical and truncated-cone  
surfaces are often encountered in electromagnetic mecha-  
nisms with a plunger reed. A sketch presents both types  
of cones with dimensions given in letter markings. The  
nature of the change of the permeance of an air gap is the  
basic factor determining the characteristics of electro-  
magnetic mechanisms. Formulae found in literature are

Card 1/3

Card

... at a point having an  
... of 0.75. The following  
... the relative permeance of a conical

Investigation of the Permeance of Air Gaps Formed by Conical and  
Truncated Conical Surfaces (Cont.)

112-3-5128

$$\lambda = \frac{0.786}{\xi \sin^2 \alpha} - \frac{0.157}{\sin^2 \alpha} + 0.75$$

There are 5 bibliographic entries.

ASSOCIATION: Moscow Institute of Power Engineering (Mosk. energ. in-t) A.V.S.

Card 3/3

8(0)

AUTHOR:

Slivinskaya, Alla Georgiyevna, Candidate SOV/161-58-2-19/30  
of Technical Sciences, Docent at the Chair for Industrial  
Electrical Equipment of the Moscow Power Engineering Institute

TITLE:

Graphical Method for the Determination of the Permeability  
of Axialsymmetric Air Gaps (Graficheskiy metod opredeleniya  
magnitnykh provodimostey vozdushnykh zazorov s osevoy simmetriy-  
ey)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika,  
1958, Nr 2, pp 153 - 160 (USSR)

ABSTRACT:

At first, the principles of setting up axialsymmetric fields  
are given. A method of setting up the diagram of an axial-  
symmetric field is then shown. The diagram of a homogeneous  
axialsymmetric field is used in this connection. The equi-  
potential surfaces become straight lines running parallel with  
the x-axis. The map of a heterogeneous field differs from  
that of the homogeneous field in as much as the adjacent  
lines of force and equipotential lines are no more parallel  
to each other. The diagram of the heterogeneous field, how-  
ever, must correspond, in any respect, with that lattice

Card 1/2

Graphical Method for the Determination of the Permeability SOV/161-58-2-19/30  
of Axialsymmetric Air Gaps

representing the homogeneous field as the aspect ratio (of the box form) of the heterogeneous field must be equal to the aspect ratio of the corresponding boxes of the homogeneous field. That is, the curved rectangles must resemble those the lattice of the homogeneous field. By means of this method and of the control lattice the field diagram of the gap being formed by the flat ends of cylindrical poles was set up. The author then shows the way of determining the value of the permeability by the field diagram. The method given herein permits the determination with fair simplicity and precision, of the permeability of the air gaps that are formed by the axialsymmetric boundary surfaces. There are 7 figures and 2 Soviet references.

ASSOCIATION: Kafedra elektricheskikh apparatov Moskovskogo energeticheskogo instituta (Chair for Electrical Apparatus of the Moscow Power Engineering Institute)

SUBMITTED: January 24, 1958

Card 2/2

SLIVINSKAYA, A.G.

PHASE I BOOK EXPLOITATION

SOV/3855

Gordon, Andrey Vladimirovich, and Alla Georgiyevna Slivinskaya

Elektromagnitny postoyannogo toka (Direct-Current Electromagnets) Moscow, Gos-energoizdat, 1960. 446 p. Errata slip inserted. 13,000 copies printed.

Ed.: Ye. N. Zeyn; Tech. Ed.: K. P. Voronin.

**PURPOSE:** This monograph is intended for electrical engineers engaged in design, construction, and investigation of electromagnetic mechanisms, and for personnel working in the field of automation. It may be also useful to students of electrical engineering schools of higher education and universities.

**COVERAGE:** The monograph describes theoretical problems of operation and design of direct current neutral electromagnets used as actuators in electromagnetic mechanisms. The authors discuss physical processes connected with their operations, and methods of design of all varieties of electromagnets. Chapters I, II, and XI were written jointly by both authors. Chapters III, V, VI, and X were written by A. G. Slivinskaya. Chapters IV, VII, VIII, and

Card 1/9



## Direct-Current Electromagnets

SOV/3855

IX were written by A. V. Gordon. The authors thank Docent N. T. Koroban, Candidate of Technical Sciences, and Lt. Col. Ye. N. Zayn, Engineer. References follow each chapter.

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Card 2/9

GORDON, Andrey Vladimirovich; SLIVINSKAYA, Alla Georgiyevna;  
KOROBAN, N.T., kand. tekhn. nauk, retsenzent; ZEYN,  
Ye.N., inzh.-podpolkovnik, red.

[Polarized electromagnets] Poliarizovannye elektromag-  
nity. Moskva, Energiia, 1964. 119 p. (MIRA 17:11)

SLIVINSKAYA, Alla Georgiyevna; GORDON, Andrey Vladimirovich;  
KOROBAN, N.T., kand. tekhn. nauk, retsenzent; ZEYN,  
Ye.N., inzh.-podpolkovnik, red.

[Permanent magnets] Postoiannye magnity. Moskva, Energiia,  
1965. 127 p. (MIRA 18:5)

SLIVINSKAYA, Alla Georgiyevna, kand. tekhn. nauk, dotsent

Study of the dynamic traction characteristics of d.c. electro-  
magnets. Izv. vys. ucheb. zav.; elektromekh. 8 no.11:1275-1279  
'65. (MIRA 19:1)

SLIVINSKIY, A.  
NAZAROV, A.; FARBEROV, Z.; VIKHMAN, E.; SLIVINSKIY, A.; ZAYTSEV, P.

Simplify the apparatus that manages production. Sots.trud no.10:128-134  
0 '57. (MIRA 10:11)

1. Nachal'nik sborochnogo tsekha Moskovskogo zavoda shlifoval'nykh stankov (for Nazarov).
  2. Zamestitel' nachal'nika sborochnogo tsekha Moskovskogo zavoda shlifoval'nykh stankov (for Farberov).
  3. Glavnyy inzhener zavoda "Sel'khozdetal'" (for Vikhman).
  4. Glavnyy inzhener Kishinevskoy tabachno-fermentatsionnoy fabriki (for Slivinskiy).
  5. Glavnyy inzhener Lidskogo zavoda metallicheskogo shirpotreba, Grodnenskaya oblast' (for Zaytsev).
- (Industrial organization)

SLIVINSKIY, A.; YEREMEYEV, K.

Shorten the way from the exhibition into production. Inform.biul.  
VDNKH no.1:18-19 Ja '65. (MIRA 18:3)

1. Predsedatel' seksii po stroitel'stvu Komiteta Soveta Vystavki dostizheniy narodnogo khozyaystva SSSR i zamestitel' predsedatelya Gosstroya SSSR (for Slivinskiy). 2. Otvetstvennyy sekretar' seksii po stroitel'stvu Komiteta Soveta Vystavki dostizheniy narodnogo khozyaystva SSSR (for Yermeyev).

SLIVINSKIY, A.I.

Experience in manufacturing precast concrete and reinforced concrete structural components for ferrous metallurgical construction in the Ukraine. Bet. i zhel.-bet. no.6:219-227 Je '57. (MLRA 10:11)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury USSR.  
(Ukraine--Metallurgical plants) (Precast concrete construction)

SOV/137-58-7-14254

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 43 (USSR)

AUTHOR: Slivinskiy [Slyvynskyy, A.]

TITLE: Construction of Metallurgical Industrial Establishments in USSR  
(Stroitel'stvo predpriyatiy metallurgicheskoy promyshlennosti)  
[Budivnytstvo pidpryyemstv metalurhiynoyi promyslovosti] in  
Ukrainian

PERIODICAL: Bud-vo i arkhitektura. Str-vo i arkhitektura, 1957, Nr 12,  
pp 3-6

ABSTRACT: A brief description of the development of the metallurgical industry of the Ukraine from 1930 to date is offered. The beginning of the introduction into the construction during the first five-year plan of sectional reinforced concrete, welded metallic structures, and their unification and standardization, also the solution of the problems of construction on sagging and loess-type soils is noted. The work of rebuilding of ruined factories and production units along with the complete reconstruction of production in a number of cases is described. A substantial achievement of the builders is the introduction of welding into all types of steel construction, which in 1949 led to the building of the first welded blast furnace in Europe at the

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SOV/137-58-7-14254

Construction of Metallurgical Industrial Establishments in USSR

"Zaporozhstal" steel plant. A powerful base for the production of building materials and construction was created in the Ukraine. In a record-breaking short period (less than 6 months) blast furnaces were built in a number of plants. Construction of iron-ore mines and mineral dressing plants (kombinats) is being carried out. A number of oxygen units is being built. Work on the transfer of metallurgical plants to natural-gas heating is being done.

A.P.

1. Iron industry--USSR
  2. Steel industry--USSR
  3. Industrial plants
- Construction

Card 2/2

*SLIVINSKIY, A.I.*  
SLIVINSKIY, A.I.

Constructing ferrous metallurgical enterprises in Krivoy Rog.  
Stroi.prom. 35:22-26 0 '57. (MIRA 10:10)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury  
USSR.

(Krivoy Rog--Building)

SLIVINSKIY, A.I., inzhener; UMANSKIY, Z.M., inzhener.

Using precast reinforced concrete in building casting yards and  
operation areas of a blast furnace. Stroi.prom. 35 no.2:8-11  
F '57. (MIRA 10:3)  
(Blast furnaces) (Precast concrete construction)

SLIVINSKIY, A. I.

Organization of construction in the Dnepropetrovsk Economic Council.  
Stroit. prom. 36 no.6:10-14 Je '58. (MIRA 11:6)

1. Zamestitel' predsedatelya Dnepropetrovskogo sovmarkhoza.  
(Dnepropetrovsk Province--Precast concrete construction)