

L 51380-65 INT(d)/MHD-2/EWP(1) Po-L4/Pz-L4/Pk-L4 IJP(c) EB/CG

UR/0236/65/000/007/0018/0079

ACCESSION NR: AP5010892

AUTHORS: Petrenko, Z. G.; Zelenskaya, N. V.; Dennenburg, V. L.

TITLE: Cathode-ray oscilloscope storage tube. Class 21, No. 169702

SOURCE: Byulleten' izobreteny i tehnicheskikh znakov, no. 7, 1965, 78-79

TOPIC TAGS: cathode ray tube

ABSTRACT: This Author Certificate presents a cathode-ray oscilloscope storage tube. To increase the recording rate with a large reproduction time of the image tube, an additional mesh target, an additional distribution cathode, and an electron image transfer section are placed between the deflecting system and the target with bistable recording mode (see Fig. 1 on the Enclosure). Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 03Nov63

ENCL: 01

SUB COMINT EC

NO REF Sov: 000

OTHER: 000

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L 51380-65

ACCESSION NR: AP5010392

ENCLOSURE: 01

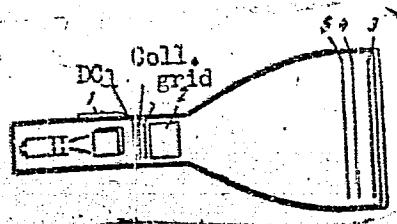


Fig. 1.

Cathode-ray oscilloscope storage tube  
1- deflecting target; 2- image transfer section; 3- target with bistable  
mode; 4- mesh target; 5- distribution cathode

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DENNIK, Aleksandr Nikolaevich, akademik; KUCHEROV, P.S., otvetstvennyy  
redaktor; ALADOVA, Ye.I., tekhnicheskiy redaktor; NADEJINSKAYA, A.A.,  
tekhnicheskiy redaktor

[Articles on mining] Stat'i po gornomu delu. Moskva, Ugletekhizdat,  
(MIRA 10:7)  
1957. 193 p.

1. Chlen-korrespondent Akademii nauk USSR (for Kucherov)  
(Coal mines and mining)

MURAV'YEV, S., brigadir; DENNIK, F.; KOLESOV, O.; TOROPCHIN, S.;  
KOROLEV, I.; AGZAMOV, D., gornyy master

To live and work the communist way. Sov.shakht. 10 no.12:4-11  
(MIRA 14:12)  
D '61.

1. Zhakhta No.1 "TSentral'naya" tresta Krasnoarmeyskugol' (for  
Murav'yev). 2. Zamestitel' sekretarya partorganizatsii Shakhty  
No.1 "TSentral'naya" tresta Krasnoarmeyskugol' (for Dennik).  
3. Nachal'nik shakhty "Kommunist-Novaya" tresta Oktyabr'ugol'  
(for Kolesov). 4. Predsedatel' komiteta profsoyuza shakhty  
"Kommunist-Novaya" tresta Oktyabr'ugol' (for Toropchin).  
(Coal miners)

VASILEVSKI<sup>v</sup> M.N., kand.tekhn.nauk; VEYSBERG, K.G., inzh.; DENNIK, V.F., inzh.;  
KORINEV, B.L., inzh.

Automated mine hoisting system with low-frequency drag-up using  
silicon power rectifiers. Energ. i elektrotekh. prom. no. 4:47-49  
(MIRA 18:3)  
O-D '64.

DENOAK, D.

Two new drying installations. Sel'khozmashina no. 9:30-31 S '56.  
(MLRA 9:11)  
(Grain--Drying)

DENOAK, D.V., referent.

Designs of trailer driving axles. Trakt. i sel'khozmash. no.2:  
48-49 F '58. (MIRA 12:3)  
(Tractors--Trailers) (Axles)

DENOAK, D., referent

"Binder" trailer with driving axle (from "Landtechnik", No. 18,  
1957). Trakt. i sel'khozmash. no. 7:46 J1 '58. (MIRA 11:7)  
(Tractors--Trailers)

DENOAK, D.

Martin furnace. IUn.tekh. 3 no.2:28-29 F '59. (MIRA 12:1)  
(Open-hearth furnaces)

DENOAK, D.

Two-cycle motorcycle engine. IUn.tekh. 3 no.4:54-55 Ap '59.  
(MIRA 12:4)  
(Motorcycles—Engines)

DENONCE, D.V.

MGV-5 tractor. Trakt. i sel'hozmasch. no. 7:46 J1 '59.

(MIRA 12:11)

(Hay--Harvesting)

TEPLOV, B.M., otv. red.; DENOTKINA, L.S., red.; NOVOSELOVA, V.V.,  
tekhn. red.

[Typological characteristics of higher nervous activity in  
man] Tipologicheskie osobennosti vysshei nervnoi deiatel'-  
nosti cheloveka. Moskva, Izd-vo APN RSFSR. Vol.3. 1963.  
273 p. (MIRA 16:10)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut  
psichologii. 2. Deystvit'nyy chlen APN RSFSR (for Teplov).  
(NERVOUS SYSTEM)

GUROVA, Nina Ivanovna; DENOTKINA, L.S., red.

[Age-related morphology of the human chest] Vozrastnaya  
morfologiya grudnoi kletki cheloveka. Moskva, Prosve-  
shchenie, 1965. 215 p. (MIRA 18:5)

21.3500

81940  
S/078/60/005/07/05/014  
B004/B056AUTHORS: Denotkina, R. G., Moskvin, A. I., Shevchenko, V. B.TITLE: Determination of the Composition and the Dissociation  
Constants of the Phosphate Complexes<sup>1</sup> of Plutonium (IV) by  
Means of the Solubility MethodPERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 7,  
pp. 1509-1515

TEXT: In order to obtain stable solutions of nitric acid when dissolving the fuel elements consisting of an uranium-molybdenum alloy of the first atomic power plant of the USSR, 20-40 g/l phosphoric acid is added. This caused the authors to investigate the complex-formation of plutonium (IV) in solutions of phosphoric acid and to determine the ratio between metal and addend and the dissociation constants of the complexes. They investigated the solubility of the gelatinous  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$  in 0.012 to 2 mole/l phosphoric acid in the presence of 2 M  $\text{HNO}_3$  at 25°C. The experimental data are shown in Table 1 and Fig. 1. The solubility of

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Determination of the Composition and the  
Dissociation Constants of the Phosphate  
Complexes of Plutonium (IV) by Means of the Solubility Method

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B004/B056

plutonium (IV)-phosphate at first decreases, attains a minimum at  $1.06 \times 10^{-4}$  mole/l, after which it increases as a result of complex formation. From the curve in Fig. 1 it may be seen that the number of phosphate groups in the complex ion increases steplike from 1,2,3,4 to 5. The following instability constants are calculated for  $[\text{Pu}(\text{HPO}_4)_4]^{2+}$ :  $K_{n_1} = 1.2 \cdot 10^{-13}$ ; for  $[\text{Pu}(\text{HPO}_4)_2]^0$   $K_{n_2} = 1.8 \cdot 10^{-24}$ ; for  $[\text{Pu}(\text{HPO}_4)_3]^{2-}$   $K_{n_3} = 3.7 \cdot 10^{-34}$ ; for  $[\text{Pu}(\text{HPO}_4)_4]^{4-}$   $K_{n_4} = 6 \cdot 10^{-44}$ ; and for  $[\text{Pu}(\text{HPO}_4)_5]^{6-}$   $K_{n_5} = 9 \cdot 10^{-53}$ . Fig. 2 shows the dependence of the exponent of the instability constants on the ratio between metal and addend. When increasing the hydrogen-ion concentration, acidolysis of the phosphate complexes occurs, also for which the constants are calculated. Further, the solubility of the dry plutonium diphosphates in aqueous phosphoric acid solution (0.03-3.9 mole/l) was investigated. The results are given in 

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Dissociation Constants of the Phosphate  
Complexes of Plutonium (IV) by Means of the Solubility Method

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3004/B056

Table 2 and Fig. 3. Complex ions with the ratio metal : addend = 1 : 3,  
1 : 4, and 1 : 5 were found. Formation of these complexes could be proved  
by means of electromigration (Table 3). In Table 4 the instability con-  
stants of the phosphate complexes of Pu(IV) were compared with those of  
the complexes with other acid-anions, and the following order was found:  
 $\text{CO}_3^{2-} > \text{HPO}_4^{2-} > \text{C}_2\text{O}_4^{2-}$ . There are 3 figures, 4 tables, and 5 references:  
4 Soviet and 1 American. X

SUBMITTED: March 10, 1959

Card 3/3

BOYKO, Ye.I., otv. red.; PONOMAREV, Ya.A., red.; DENOTKINA, L.S., red.;  
TARASOVA, V.V., tekhn. red.

[Coterminalous problems in psychology and physiology] Pogranich-  
nye problemy psikhologii i fiziologii. Otv. red. E.I.Boiko.  
Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1961. 210 p.  
(MIRA 15:1)  
1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut psikho-  
logii.  
(NERVOUS SYSTEM) (REACTION TIME)

23086  
S/078/61/006/006/012/013  
B110/B206

21-52100

AUTHORS: Denotkina, R. G., Shevchenko, V. B.  
TITLE: The separation of phosphate complexes from plutonium (IV) solutions  
PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 6, 1961, 1476-1478

TEXT: As is known, uranium (IV) and thorium form complex compounds with the ions of phosphoric acid. Since with regard to its chemical properties tetravalent plutonium is very similar to U (IV) and Th, it must form complex compounds with the phosphoric acid ions. This is confirmed by the solubility of Pu compounds in  $H_3PO_4$ . The experiments conducted by the authors on the separation of Pu(IV)-phosphate compounds confirm their existence in the solution. A compound with good solubility in the presence of phosphate ions had to be selected for establishing the complex formation of Pu (IV). Hydroxide and doubly substituted Pu (IV)-phosphate were selected as initial substances.  $Pu(HPO_4)_2 \cdot xH_2O$  is well soluble in 3.9 and 2.8 molar  $H_3PO_4$  solutions. With the reduction of

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The separation of phosphate complexes ...

the phosphate ion concentration, the solubility of both compounds drops, however, and no complex compounds can be separated from the solutions because of the low Pu concentration. Freshly precipitated plutonium (IV) hydroxide, from which  $\text{NH}_4^+$ - and  $\text{NO}_3^-$ -ions were washed out, was dissolved at room temperature in 6 mole  $\text{H}_3\text{PO}_4$ . The doubly substituted Pu (IV)-phosphate was obtained by precipitation by 0.4 molar  $\text{H}_3\text{PO}_4$  from 1-molar plutonium solution combined with nitric acid. The precipitate washed out with 0.6 mole  $\text{HNO}_3$ ,  $\text{C}_2\text{H}_5\text{OH}$  and ether was dissolved in 6, 3.9 and 2.8 molar  $\text{H}_3\text{PO}_4$ . Pink solutions form when dissolving hydroxides and  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$  in  $\text{H}_3\text{PO}_4$ . The composition of the Pu(IV)-phosphate complexes in these solutions was determined by the solubility method. The precipitation of the compounds mentioned made it possible to check the composition and to investigate the properties. Ethyl alcohol was used for salting out the phosphate complexes. Gelatinous, faintly pink-colored precipitates were deposited when phosphate solutions of Pu(IV) were added to the alcohol. The precipitates freed from the mother liquor and washed out in alcohol

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and ether were dried in the air thermostat for 24 hr at  $25 \pm 5^{\circ}\text{C}$  and in vacuum for 6 hr. The constant composition of the products prepared was achieved under the given conditions. The analysis results of the substance separated from 6 mole  $\text{H}_3\text{PO}_4$  are shown in Table 1. It can be seen therefrom that during the dissolution of the hydroxide and the doubly substituted phosphate in 6 mole  $\text{H}_3\text{PO}_4$ , a complex compound with the ratio Me : addendum = 1 : 5 is separated, which probably corresponds to the formula  $\text{H}_6 [\text{Pu}(\text{HPO}_4)_5] \cdot n\text{H}_2\text{O}$ . The analysis of the compounds separated from 2.8 - 3.9  $\text{H}_3\text{PO}_4$  produced a ratio of 1 : 5 (Table 2). The Pu(IV) complex compound with four phosphate groups was separated from the mother liquor, which was obtained during the precipitation of Pu(IV) with 1.2 and 1.6 mole  $\text{H}_3\text{PO}_4$  from its 2-molar nitric acid solution. According to Table 3, the ratio  $\text{Pu}^{4+} : \text{HPO}_4^{2-} = 1 : 4$ . This composition corresponds to  $\text{H}_4 [\text{Pu}(\text{HPO}_4)_4] \cdot n\text{H}_2\text{O}$ . Studies of the electromigration of Pu(IV) confirm the existence of complex acids. Pu(IV) complex compounds with five

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phosphate groups probably exist in 6, 3.9 and 2.8 molar  $H_3PO_4$ , and those with four groups in 1.2 and 1.6 molar  $H_3PO_4$ . The complex with the ratio Me : addendum = 1 : 3 could not be separated. The solid phosphate complexes are amorphous pink substances, well soluble in  $HNO_3$  and HCl, insoluble in alcohol, hexane, ether, acetone and carbon tetrachloride. After six months storage they still had the original ratio  $Pu^{4+} : HPO_4^{2-}$  and were hydrolyzed in water. [Abstracter's note: Essentially complete translation.] There are 4 tables and 5 references: 1 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: Ref. 1: E. L. Lebroski, H. W. Abter, F. K. Neuman, J. Amer. Chem. Soc., 73, 5646 (1951). Ref. 2: J. M. Schreyer. J. Amer. Chem. Soc. 77, 2972 (1955). Ref. 3: R. P. O'Connor. Report CN, 1702, June, 1944.

SUBMITTED: November 3, 1960

Card 4/6

5, 2200(A)

## AUTHORS:

Denotkina, R. G., Moskvin, A. I.,  
Shevchenko, V. B.

69013

S/078/60/005/04/008/040  
B004/B007

## TITLE:

The Solubility Product of Bisubstituted Plutonium(IV)Phosphate  
and Its Solubility in Some Acids

## PERIODICAL:

Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 4, pp 805 - 810  
(USSR)

## ABSTRACT:

The authors investigated the solubility of  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$  in  $\text{HClO}_4$  and  $\text{HNO}_3$ , and determined the solubility product of this compound. Solubility was determined at a constant ion strength = 2, which was maintained by addition of  $\text{NaClO}_4$  or  $\text{LiNO}_3$ . The precipitation of  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$  ( $x$  fluctuates according to the authors' data between 1 and 4) was effected from a solution of 1 - 2 M Pu(IV)-nitrate by a solution of 0.4 M  $\text{H}_3\text{PO}_4$ . The experimental data are given as follows: Figure 1 - influence of hydrogen concentration upon the solubility of  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$  in  $\text{HNO}_3$ , figure 2 - the same in  $\text{HClO}_4$ . Hydrogen ion concentration was measured by means of an LP-5 potentiometer. The solubility of

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The Solubility Product of Bisubstituted  
Plutonium(IV)Phosphate and Its Solubility in  
Some Acids

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plutonium diphosphate increases with increasing hydrogen ion concentration, and is greater in  $\text{HNO}_3$  as a result of the formation of the complex  $\text{Pu}(\text{NO}_3)_3^{3+}$ . Further, the solubility of  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$  in distilled water and in  $\text{HClO}_4$  and  $\text{HNO}_3$ , with concentrations between 0.1 - 2 M was determined. Table 1 gives the data. From the low pH (3.55 - 3.60) of the saturated aqueous solution of  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$ , conclusions are drawn as to hydrolysis accompanied by formation of the aquo-hydroxo complex  $[\text{Pu}(\text{HPO}_4)(\text{H}_2\text{O})_{n-1}\text{OH}]^+$ , where  $n = 1 \dots 1$ . From the dissociation constants of  $\text{HPO}_4$  and the equilibrium constant for the dissociation of  $\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}$  the solubility product was calculated. Table 2 gives the solubility product in  $\text{HClO}_4$ , table 3 gives the solubility product in  $\text{HNO}_3$ , with an ion strength = 2. Further, the solubility product was calculated immediately from the equation  $\text{LP}_{\text{Pu}(\text{HPO}_4)_2 \cdot x\text{H}_2\text{O}} = [\text{Pu}^{4+}][\text{HPO}_4^{2-}]^2$  (Table 4), and finally

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Plutonium(IV)Phosphate and Its Solubility in  
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the solubility of the Pu(IV)phosphate was determined graphically from experimental data for the solubility of Pu(IV)phosphate in mixtures of  $\text{HNO}_3$  and  $\text{H}_3\text{PO}_4$  (Fig 3). The mean value of the solubility product determined according to the three methods is  $2 \cdot 10^{-28}$ . A comparison between the solubility product of Pu(IV)phosphate and the corresponding Th- and U-compounds shows that the Pu-compound has the lowest solubility because of its lower ionic radius. There are 3 figures, 4 tables, and 6 references, 5 of which are Sovist.

SUBMITTED: December 18, 1958

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I 8143-66

EWT(m)/EPF(c)/EWP(t)/EWP(b)

IJP(c)

JD

ACC NR: AP5027204

SOURCE CODE: UR/0078/65/010/011/2449/2452

AUTHOR: Denotkina, R. G.; Shevchenko, V. B.; Moskvin, A. I.

ORG: None

TITLE: The solubility product of ammonium plutonyl phosphate in aqueous solutions

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 11, 1965, 2449-2452

TOPIC TAGS: ammonium phosphate, plutonium compound, solubility

ABSTRACT: Ammonium plutonyl phosphate was precipitated by the reaction of a 0.1 molar nitric acid plutonyl solution with an  $8.26 \times 10^{-3}$  molar concentration of the metal and a 1.0 molar solution of  $(\text{NH}_4)_2\text{HPO}_4$ . The finely crystalline precipitate obtained, which was of a light green color and had the composition  $\text{NH}_4\text{PuO}_2\text{PO}_4 \cdot 3\text{H}_2\text{O}$ , was the starting material for the investigations. The solubility of ammonium plutonyl phosphate was determined in aqueous solutions over the pH range from 1.0 to 6.4. In one series of experiments the pH of the solutions was adjusted by addition of  $\text{HClO}_4$ , and in another series of experiments by addition of  $\text{HNO}_3$ . The ionic strength in the solution was not constant, since addition of  $\text{NaClO}_4$  or  $\text{LiNO}_3$  to maintain mu constant brought about partial replacement of the  $\text{NH}_4^+$  group by sodium or lithium ions, as a

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result of which the solubility could be determined only for the mixed compound  $(\text{NH}_4, \text{Na})\text{PuO}_2\text{PO}_4$  or  $(\text{NH}_4, \text{Li})\text{PuO}_2\text{PO}_4$ , but not for ammonium plutonyl phosphate. The experimental solubility data is exhibited in tabular form. On the basis of the experimental data, calculations were made of the solubility product of ammonium plutonyl phosphate and of a double substituted plutonyl phosphate; these were found to be equal to  $(2.3 + 1.2) \times 10^{-27}$  and  $(2.8 + 1.3) \times 10^{-13}$ . The concentration instability constants for  $\text{NH}_4\text{PuO}_2\text{PO}_4$  and  $\text{PuO}_2\text{HPO}_4$  were calculated to be equal to  $3.7 \times 10^{-22}$  and  $6.8 \times 10^{-49}$ . It is concluded from the calculated solubility products for  $\text{NH}_4\text{PuO}_2\text{PO}_4 \cdot 3\text{H}_2\text{O}$  and  $\text{PuO}_2\text{HPO}_4$  that ammonium plutonyl phosphate belongs to the groups of slightly soluble compounds formed by the reaction of the  $\text{PuO}_2^{2+}$  ion with phosphoric acid. Orig. art. has: 10 formulas and 1 table.

SUB CODE: GC, IC/ SUBM DATE: 27Feb65/ ORIG REF: 004/ OTH REF: 008

DENOVA, A.A.; ZAKHAROV, A.M.; KOLIA, V.E.

Effect of *Carlina biebersteinii* on the resistance of white mice to  
radial acceleration. Farm.i toks. 23 no.2:177 Mr-Apr '60.  
(MIRA 14:3)

1. Permskiy farmatsevticheskiy institut.  
(ACCELERATION—PHYSIOLOGICAL EFFECT)

(THISTLE)

Veterinary Medicine

BULGARIA

DENOVSKI, Dr. D.; IBPRNB (Abbreviation not identified)

"Effect of an Extract from Calves' Blood on the Gain in Weight and Resistance of Some Animals and Poultry"

Sofia, Veterinarna Sbirka, Vol 63, No 9, 1966, pp 26-28

Abstract: An extract of calves' blood, one of V. P. Filatov's bio-stimulants, was injected into calves, young pigs, lambs, and turkey chicks at farms. Injections of the extract raised the rate at which the animals and turkey chicks gained weight and increased their resistance to infection. Injection of the extract into pigs with paratyphoid and virus pneumonia had a therapeutic effect.

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S/123/62/000/003/004/018  
A004/A101

AUTHOR: Denshchik, N. M.

TITLE: Two-row mandrel

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 3, 1962, 23, abstract  
3B104 ("Dokl. Mosk. s.-kh. akad. im. K. A. Timiryazeva", 1961,  
no. 66, 233-240)

TEXT: The author investigates tools for rotation working during the  
finish machining of holes. In a two-row mandrel, two rows of tapered rollers  
are used, which are located successively in axial direction. The first row of  
rollers carries out the basic work of plastic flow (rough shaping), while the  
second row effects the finish shaping. The magnitude of roller shift in axial  
direction 1 is determined by the following formula:

$$1 = \frac{d_1 - d_2 + \frac{D_2 - D_1}{2}}{\operatorname{tg}2\alpha_r - \operatorname{tg}(2\alpha_r - \beta)},$$

where  $d_1$  and  $d_2$  - diameters of rollers of the first and second row;  $2\alpha_r$  - angle

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A004/A101

Two-row mandrel

of taper of the rollers;  $\beta$  - angle of taper of the mandrel shaft;  $D_1$  and  $D_2$  - diameters of the adjusting dimensions of the rollers of the first and second row. Tests showed that a two-row mandrel ensures a macro-geometry in the range of the second class of accuracy, while the microgeometry obtained is in the range of the 10th - 12th class of surface finish. The use of a two-row mandrel makes it possible, in comparison with a single-row mandrel, to increase the efficiency by 30%, raise the tool life and the workhardening degree. There are 7 figures and 8 references.

I. Brozgol<sup>1</sup>

[Abstracter's note: Complete translation]

Card 2/2

KARASEV, N.A.; DENSHCHIK, N.M.

Microgeometry of the surface due to rotary burnishing. Trudy  
Sem.po kach.poverkh. no.5:375-388 '61.  
(MIRA 15:10)  
(Metalwork)

KARASEV, N.A.; DENSCHCHIK, N.M.

Use of two-row rolling heads for the finishing of cylinders. Avt.-  
prom. no.9:36 S '61. (MIRA 14:9)

1. Timiryazevskaya sel'skokhozyaystvennaya akademiya.  
(Metals--Finishing)

DENSHCHIK, N.M.

"An Investigation of the Technological Parameters in Precision  
Drilling of Steel Cylinders of Dissimilar Rigidity";  
dissertation for the degree of Candidate of Technical Sciences  
(awarded by the Timiryazev Agricultural Academy, 1952)  
(Investiya Timiryazevskoy Sel'skokhozyaistvennoy Akademii, Moscow, No. 2,  
(1963, pp 232-236)

KARASEV, N. A., kand. tekhn. nauk; DENSHCHIK, N. M.; SAL'NIKOV, A. G.

New design of roller-type burnishing heads. Avt. prom. 28  
no. 6:34-37 Je '62. (MIRA 16:4)

1. Timiryazevskaya sel'skokhozyaystvennaya akademiya i  
Moskovskiy avtozavod imeni Likhacheva.

(Machine tools—Attachments)

KARASEV, N.A., kand.tekhn.nauk; DENSHCHIK, N.M.

- Geometrical parameters of deforming rollers in burnishing heads.  
Avt.prom. 29 no.3:36-39 Mr '63. (MIRA 16:3)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya  
im. K.A.Timiryazeva.

(Grinding and polishing)

UBENSHCHIKOV, A.

In the Presidium of the Academy of Sciences of the Ukrainian  
S.S.R. Visnyk AN URSR 24 no.10:74-76 O '52. (MLRA 9:9)

(Academy of Sciences of the Ukrainian S.S.R.)

DENSHCHIKOV, A.

In the Presidium of the Academy of Sciences of the Ukrainian S.S.R. Vianyk  
AN URSR 24 no.7:75-77 Jl '53. (MIRA 6:9)  
(Academy of Sciences of the Ukrainian S.S.R.)

DENSHCHIKOV, A.

USSR/ Miscellaneous - Scientific expeditions

Card 1/1 Pub. 138 - 11/12

Author(s) : Denshchikov, A.

Title : Scientific expeditions by the institutions of the Academy of Sciences Ukr-SSR in 1953

Periodical : Visnik AN URSR 3, 72-76, Mar 1954

Abstract : Brief reports are presented on the numerous scientific expeditions, carried out by various institutions of the Academy of Sciences Ukr-SSR, during 1953, within the boundaries of the USSR. The results of these expeditions - botanical, zoological, agricultural, physiological etc. - are described.

Institution: .....

Submitted: .....

DENSHCHIKOV, I.Ye.; KOZLOV, N.S.; VARSHAVER, G.N.; STOLPER, A.M.

El'etric tensometric scales for lorry cars. Koks i khim. no.2:61-63  
1963. (MIR 16:2)

1. Yenakiyevskiy Koksokhimicheskiy zavod.  
(Scales) (Coke industry---Equipment and supplies)

SOV-132-58-8-11/16

AUTHORS: Denshchikov, L.Ye. and Ivanovskaya, Z.I.

TITLE: Wages of Workers of Drilling Brigades in Relation to Standardized Categories of Rocks (Oplata truda rabochikh burov-ykh brigad po usrednennym kategoriym gornykh porod)

PERIODICAL: Razvedka i okhrana nedor, 1958, Nr 8, pp 51-54 (USSR)

ABSTRACT: To avoid loss of time in calculating the wages to be paid to workers drilling bore holes in rocks of different hardness, standardized categories of rocks were established for each mine separately. There are 2 tables.

ASSOCIATION: TsK profsoyuza rabochikh geologorazvedochnykh rabot (Central Committee of the Trade Union of Geological Prospecting workers)

1. Rock--Classification    2. Mines--Operation    3. Employee relations

Card 1/1

AUTHOR: Denshchikov, L.Ye. SOV-132-58-9-17/18

TITLE: Geological Prospectors and Topogeodesists of West Siberia  
Contribute 5,000,000 Rubles to the Peace Fund (Geologoraz-  
vedchiki i topogeodezisty Zapadnoy Sibiri vnosyat v fond mira  
5 millionov rubley)

PERIODICAL: Razvedka i okhrana nedr, 1958, Nr 9, pp 59-60 (USSR)

ABSTRACT: The West-Siberian Territorial Committee of the Trade Union  
of geological workers called a conference of inventors and  
industrial innovators in Novosibirsk on 26-27 June 1958.  
The latest inventions and innovations of its members were  
discussed and plans for future work were established. The  
conference also stated that in some regions there is a lack  
of collaboration between the inventors and the various geo-  
logical administrations. It was also decided to appeal to  
all geological workers to raise a sum of 5,000,000 rubles  
for the Peace Fund before the end of 1958.

Card 1/2

SOV-132-58-9-17/18

Geological Prospectors and Topogeodesists of West Siberia Contribute  
5,000,000 Rubles to the Peace Fund

ASSOCIATION: TsK Profsoyuza rabochikh geologorazvedochnykh rabot (Central Committee of the Trade Union of Geological Workers)

1. Geology--USSR

Card 2/2

DENSHCHIKOV, L. Ye.

Using the new wage system in geological prospecting organizations.  
Razved. i okh. nedr 27 no.2:60-64 F '61. (MIRA 14:5)

1. TSentral'nyy komitet profsoyuza rabochikh geologorazvedochnykh  
rabot.  
(Wages)

DENSHCHIKOV, L.Ye

On-the-job training and increasing the qualifications of workers of geological surveying organizations. Razved. i okh. nedr 26 no.6:50-51 Je '60. (MIRA 15:7)

1. TSentral'nyy komitet profsoyuza rabochikh geologorazvedchikov  
rabot. (Prospecting)

REZNICHENKO, M.V.; DENSHCHIKOV, L.Ye.

Work and live in the communist way. Razved. i okh. nedr  
26 no.7:56-58 Jl '60. (MIRA 15:7)

1. TSentral'nyy komitet professional'nogo soyuza rabochikh  
geologorazvedochnykh rabot.  
(Prospecting)

REZNICHENKO, M.V.; DENSHCHIKOV, L.Ye.

Second Plenum of the Trade Union of Workers Employed in Geological  
Prospecting. Razved. i okh. nedr 30 no.4:56-59 Ap '64.  
(MIRA 17:12)

1. Tsentral'nyy komitet professional'nogo soyuza rabochikh geologo-  
razvedochnykh rabot.

DENSHCHIKOV, M.T.

State farms of the Main Administration for the Alcohol Industry  
at the All-Union Agricultural Exhibition. Spirt.prom. 20 no.3:  
3-4 '54.  
(Moscow--Agricultural exhibitions) (Agricultural exhibitions--  
Moscow) (State farms)

DENSHCHIKOV, M.T.

Tasks of the alcohol, liqueur and vodka industry in 1955. Spirt. prom.  
21 no.1:1-3. '55. (MIRA 8:5)

1. Glavnaya upravleniya spirtovoy promyshlennosti Ministerstva promysh-  
lennosti prodevol'stvennykh tovarov SSSR.  
(Liquor industry)

U.S.S.R.

✓ The manufacture of adhesive paste from slops. M. T. Denchikov (Alc. Factory, Petrovsk and All-Union Sci. Research Inst. Alc. Ind., Appl. Plant, Moscow). *Spravochnik Prom.*, 21, No. 1, 10-12 (1955).—The filtrates from the slops from rye distn. analyze on the dry bases; N-free ext. 77.5, protein 9.0-9.5, fat 6.0-6.5, and ash 8.7%, indicating suitability for the manufacture of adhesive pastes. The slops filtered through cloth bags is cooked at 60° and a vacuum of 60 to 110 mm. Hg to about 60% solids. During this evapn. the acidity rises and the excess acid is neutralized with aq. NaOH. To this paste is added 1.5 kg. NaSO<sub>4</sub>/1000 kg. and finally CH<sub>3</sub>O (40% soln.) 0.15-0.20% or borax 0.2-0.3%. The thickness is never less than 2 g./cu. Labels pasted with this adhesive will set after 45-60 sec. (at 20-25°) as compared to dextrin labels which need 30-35 sec. Werner Jacobson

DENSHCHIKOV, M.T.

Improving the work of the administrative apparatus. Spirt.prom.  
21 no.2:5-6 '55. (MLRA 8:10)

1. Glavnoye upravleniye spirtnoy promyshlennosti  
(Distilling industries)

Yenshechi Kov, M.I.

✓ Continuous vacuum cooling and saccharification of brewing mashes. M. T. Deushchikov (Korystov Plant, Moscow Alcohol Trust). *Spirtovaya Prom.* 21, No. 4, 18-19(1955).—A pilot plant is described. The saccharification proceeds in 2 steps, which use heat exchangers and wet-vacuum pumps.

Werner Jacobson

DENSHCHIKOV, M. T.:

DENSHCHIKOV, M. T.: "The development of a rational system for the continuous saccharification of starch mash." Min Higher Education USSR. Leningrad Technological Inst of the Food Industry. Leningrad, 1956. (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCE).

So.: Knizhnaya Letopis' Moscow No, 1956.

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000310130007-6

Meeting the cracked xanthate in alcohol production and the

perfection in excess of 99%.

It does not contain any

other impurities.

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000310130007-6"

DENSHCHIKOV, M.T.

RUMANIA/Chemical Technology - Chemical Products and Their  
Application. Fermentation Industry

I-27

Abs Jour : Referat Zhur- Khimiyn, No 4, 1957, 13809

Author : Denshchikov M.T.

Title : Continuous Vacuum-Cooling and Saccharification of Mash.

Orig Pub : Racirea continua in fid si zaharificarea plamezii.  
Rev. ind. aliment. prod. vegetale, 1956, No 5, 21-22

Abstract : A translation. See RZhKhim, 1956, 60086

Card 1/1

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DENSHCHIKOV, M.T.  
DENSHCHIKOV, M.T.

~~Achievements of the alcohol, liqueur and vodka industry during  
the Soviet regime. Spirit.prom. 23 no.7:37-40 '57. (MIRA 11:1)~~  
(Distilling industries)

DENSHCHIKOV, M.T.

Outlook for the development of the alcohol, liqueur, vodka and acetone-butyl industries in 1959-1965. Spirit. prom. 2<sup>4</sup> no.8:15-18 '58.  
(MIRA 11:12)

(Distilling industries)

DENSHCHIKOV, M.T.

Experience in the continuous fermenting of brewing wort.  
Spirt.prom. 26 no.1:16-19 '60. (MIRA 13:6)  
(Fermentation)

DENSHCHIKOV, M. T.

Basic scientific research work on the brewing and non-alcohol industry. Spirt.prom. 26 no.5:19-20 '60.  
(MIRA 13:7)

(Brewing industry)

DENSHCHIKOV, M.T.

Unit for obtaining "green beer" in a continuous flow. Spirit.  
prom. 27 no.2:23-27 '61. (MIRA 14:4)  
(Beer)

DENSHCHIKOV, M.T.

Pilot sectional plant for producing "green" beer in a  
continuous flow. Spirt.prom. 27 no.4:11-16 '61. (MIRA 14:6)  
(Brewing industry—Equipment and supplies)

DENSHCHIMOV, M.T.

Immediate tasks of the scientific research organizations of the  
beer and nonalcoholic beverage industry. Spirit. prom. 27 no.6:  
8-11 '61. (MIRA 14:9)  
(Brewing industry--Equipment and supplies) (Beverages)

DENSHCHIKOV, M.T.; RYLINK, S.S.; ZHVIRBLYANSKAYA, A.Yu.

Study of carbohydrate metabolism in bottom-fermenting brewer's yeast  
under conditions of continuous flow brewing. Mikrobiologiya 30 no.6:  
990-994 N-D '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivovarennoy  
promyshlennosti, Moskva.  
(YEAST) (CARBON METABOLISM) (BREWING)

DENSHCHIKOV, M.T.; RYLINK, S.S.; ZHVIRBLYANSKAYA, A.YU.

Formation of diacetyl and acetoin during the fermentation of  
brewers' wort. Mikrobiologija 31 no.1:140-145 Ja-F '62.

(MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivovarennoy  
promyshlennosti, Moskva.  
(BUTANEDIONE) (BUTANONE) (BREWING)

KOROLEV, Dmitriy Amosovich; CHEKAN, Lev Ivanovich; DEN'SHCHIKOV,  
Mikhail Tikhonovich; ZAZIRNAYA, M.V., retsenzent; URUSHADZE,  
M.G., retsenzent; MALCHENKO, A.L., prof., speisred.;  
KOVALEVSKAYA, A.I., red.; SOKOLOVA, I.A., tekhn. red.

[Technology of the production of soft drinks] Tekhnologija bez-  
alkogol'nykh napitkov. Moskva, Pishchepromizdat, 1962. 514 p.  
(MIRA 15:11)

(Soft drinks)

DENSHCHIKOV, M.T., red.; BULGAKOV, N.I., red.; VESELOV, I.Ya., red.  
VOVK, Ye.A., red.; GLAVINSKIY, D.G., red.; KRUCHININ, V.F.,  
red.; CHUKMASOVA, M.A., red.; BELIKOVA, L.S., red.;  
SOKOLOVA, I.A., tekhn. red.

[Manual on malt and beer production] Spravochnik po proizvod-  
stvu soloda i piva. Pod obshchhei red. M.T.Denshchikova. Moskva,  
Pishchepromizdat, 1962. 862. (MIRA 15:11)

(Brewing)

DENSHCHIKOV, M.T.; RYLINK, S.S.; ZHIVBLYANSKAYA, A.Yu.

Conditions of the formation of diacetyl, acetoin and 2,3 butylene glycol during fermentation. Trudy TSentr.nauch.-issl.inst.piv., bezalk. i vin.prom. no.9:5-12 '62.

Use of the iodometric method for determining aldehydes. 12-14

Some observations concerning the formation of aldehydes under the conditions of continuous fermentation. 14-18

The likeliest sources of the formation of fusel oils under the conditions of alcohol fermentation. 18-22

Some characteristics of yeast cell multiplication under the conditions of continuous fermentation. 22-32

Studying the flocculation capacity of yeast under the conditions of continuous fermentation. 32-39 (MIRA 16:10)

DENSHCHIKOV, M.T.

Laboratory cascade-multistage unit for the production of beer  
in a continuous flow. Spirt.prom. 28 no.2:8-11 '62.  
(MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivovarennoy  
promyshlennosti.  
(Brewing industry—Equipment and supplies)

DENSHCHIKOV, Mikhail Tikhonovich, kand.tekhn.nauk; SILIN, P.M., prof.,  
red.; VESELOV, I.Ya., prof., red.; SMIRNOV, V.A., prof., red.;  
RZHEKHIN, V.P., red.; LEBEDEV, P.P., red.; KOVALENKO, Yu.T., red.;  
KUPCHINSKIY, P.D., red.; HENIN, G.S., red.; P'YANKOV, A.G., red.;  
SHNAYDMAN, L.O., red.; MOREV, N.Ye., red.; SHMAIN, M.M., red.;  
BULGAKOV, N.I., red.; MAYOROV, V.S., red.; TERNOVSKIY, N.S., red.;  
RAZUVAYEV, N.I., red.; OGRODNIKOV, S.T., red.; BURMAN, M.Ye., red.;  
KHOLOSTOV, V.A., red.; NAMESTNIKOV, A.F., red.; NASAKIN, T.N., red.;  
KOVALEVSKAYA, A.I., red.; KISINA, Ye.I., tekhn. red.

[Wastes from the food industry and their utilization] Otkhody  
pishchevoi promyshlennosti i ikh ispol'zovanie. Izd. 2., dop. i  
perer. Moskva, Pishchepromizdat, 1963. 615 p. (MIRA 16:6)  
(Food industry--By-products)

DENSHCHIKOV, Mikhail Tikhonovich; KALMENS, R.I., red.; ZARSHCHIKOVA,  
L.N., tekhn. red.

[Use of industrial waste waters for the production of food  
yeasts] Ispol'zovanie promyshlennykh stochnykh vod dlia  
proizvodstva kormovykh drozhzhei. Moskva, Pishchepromizdat,  
(MIRA 16:12)  
1963. 22 p.  
(Industrial wastes) (Yeast)

DENSHCHIKOV, Mikhail Tikhonovich, kand. tekhn.nauk; KALMENS, R.I.,  
red.; ZARSHCHIKOVA, L.N., tekhn. red.

[Present-day state of the brewing industry in Czechoslovakia]  
Sovremennoe sostoianie pivovarennoi promyshlennosti  
Chekhoslovakii. Moskva, Pishchepromizdat, 1963. 139 p.  
(MIRA 16:11)  
(Czechoslovakia—Brewing industry)

DENSHCHIKOV, M.T.; RYLINK, S.S.; ZHVIRBLYANSKAYA, A.Yu.; MOISEYEVA, V.P.;  
BERENTSVEYG, I.A.; BOBIKOV, Ye.V.

Role of diacetyl on the vitality of sedimentary brewers' yeasts.  
Trudy TSentr.nauch.-issl.inst.piv., bezalk.i vin.prom.no.11:16-27 '63.  
(MIRA 17:9)

DENSHCHIKOV, M.T.; SHASHILOVA, V.P.

Continuous method of fruit and berry juice fermentation in a  
cascade-deck system. Trudy TSentr.nauch.-issl.inst.piv., bezalk. i  
(MIRA 17:9)  
vin. prom. no.11:53-59 '63.

DENSHCHIKOV, M.T.

Speed up the technological progress in the brewing industry. Spirit.  
prom. 29 no.5:1-5 '63. . .  
(MIRA 17:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut pivo-bezalkogol'noy  
i vinnoy promyshlennosti.

DENSHCHIKOV, M.T.

Design of a cascade fermentation system with horizontal  
trays. Spirt. prom. 29 no.8:6-10 '63. (MIRA 17:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut pivo-  
bezalkogol'noy i vinnoy promyshlennosti Moskovskogo gorod-  
skogo soveta narodnogo khozyaystva.

DENSHCHIKOV, M.T.; RYLINK, S.S.; ZHVIRBLYANSKAYA, A.Yu.

Disinfection under the conditions of the continuous brewing method.  
Trudy TSentr.nauch.-issl.inst.piv., bezalk. i vin.prom.no.11:77-79  
'63. (MIRA 17:9)

GLAVINSKIY, David Germanovich; DENSCHIKOV, Mikhail Tikhonovich;  
PIGUZOV, A.T., inzh., retsenzent; FEL'DMAN, M.S., inzh.,  
retsenzent; POPOV, V.I., prof., spets. red.; KOVALEVSKAYA,  
V.I., red.; SOKOLOVA, I.A., tekhn. red.

[Mechanization and automation in the brewing industry] Me-  
khanizatsiya i avtomatizatsiya pivovarennogo proizvodstva.  
Moskva, Izd-vo "Pishchevaya promyshlennost", 1964. 419 p.  
(MIRA 17:4)

DENSHCHIKOV, M.T.

Design of a cascade-tray fermenter unit with inclined trays.  
Ferm. i spirit. prom. 30 no.1:17-21 '64.

(MIRA 17:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut pivo-bezalkogol'noy i vinnoy promyshlennosti.

Союзная Сельскохозяйственная Академия  
Центральный научно-исследовательский институт  
пиво-безалкогольной и винной промышленности

DENSHCHIKOV, M.T.

Provide the brewing industry with high-quality raw materials. Fern.  
i spirit. prom. 30 no.5:1-5 '64. (KIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivo-bezalkogol'noy  
i vinnoy promyshlennosti.

DENSHCHIKOV, M.T.; SHASHILOVA, V.P.

Fermentation of glucose-protein concentrate solutions on  
cascade-tray units. Ferm. i spirit. prom. 30 no.3:21-23 '64.  
(MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivo-bezalkogol'ney i vinnoy promyshlennosti.

DENSHIKOV, M.T.

Use of the existing equipment for the bulk fermentation of beer  
wort. Farm. i spirt.prom. 31 no.320-2A '65.

(MLR 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivo-bezalkogol'ney  
i vinnoy promyshlennosti.

DENSHCHIKOV, M.T.

Combining the processes of main-and after-fermentation in the  
brewing of the finished beer. Ferm. i spirit.prom. 30 no.4:18-  
22 '64. (MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivobezalkogol'-  
noy i vinodel'cheskoy promyshlennosti.

DEN'SHCHIKOV, N.A. ; SVEKOLKIN, N.V.

Gas removal from coal seams of the Donetsugol' Trust "Yugo-Zapad-naya" mine no.3: Ugol' 35 no.5:23-25 My '60.  
(MIRA 13:7)

1. Glavnnyy inzhener tresta Donetskugol' (for Denshchikov). 2.Glavnnyy  
inzhener shakhty "Yugo-Zapadnaya" No.3 tresta Donetskugol' (for  
Svekolkin).  
(Donets Basin--Mine gases)

KORF, M.G.; DEN'SHCHIKOV, V.I.

Elements of earthquakeproof industrial buildings with  
mounted panel walls. Trudy TSNIISK no.6:144-153 '61.  
(MIRA 15:1)

(Industrial buildings)  
(Earthquakes and building)  
(Walls)

44(32-C) EPP(c)/EPA(b)-2/EAT(m)/EWP(t)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t) IJP(c)  
JD/JG/WB

ACCESSION NR: AP5019661

UR/0369/65/001/003/0350/0354

AUTHOR: Den'shchikova, G. I.; Goryunov, Yu. V.; Surnin, B. D.; Traskin, V. Yu.

TITLE: Adsorption lowering of the strength of zinc with deposition of thin layers  
of mercury on a limited area

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 3, 1965, 350-354

TOPIC TAGS: zinc, mercury coated zinc, zinc strength, strength deterioration coating,  
mercury coating, surface active coating, metal deterioration coating, induced de-  
terioration

ABSTRACT: The effect of a thin layer of adsorption-active metal, deposited on a relatively large area of a metal plate, on the formation of macrocracks has been investigated. A mercury coating was deposited on 225 mm<sup>2</sup> of Ts3 commercial-grade zinc sheets 1.8 mm thick and up to 200 mm wide by immersion in a 3% HgCl<sub>2</sub> solution for a period of time varied to obtain the desired amount of coating per unit of area ( $q$  mg/mm<sup>2</sup>), and then subjected to bend tests at room temperature. It was found that plates with  $q$  less than a certain  $q_{min}$  (0.001 mg/mm<sup>2</sup>, under the conditions used) show no visible cracks even at a 90 deg bend angle. In the range of  $q$ ,  $q_{min} < q < q_{cr}$  ( $q_{cr}$  is a critical amount varying from 0.07 to 0.35 mg/mm<sup>2</sup> depending

Cord 1/2

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ACCESSION NR: AP5019661

on the surface preparation), a number of visible parallel cracks appear on the amalgamated portion of the plate after a small bend corresponding to a stress ( $P_a$ ) much lower than the tensile strength of zinc. The cracks are about 0.1—0.15 mm deep and do not propagate beyond the boundaries of the amalgamated area of the plate. With increasing  $q$ , the number of cracks decreases, and, as a rule, at  $q > q_{cr}$  a single crack with a depth practically equal to the plate thickness appears. The main characteristic of the plate failure at high  $q$  is a gradual lengthening of the crack and its propagation beyond the boundaries of the amalgamated area. The final length of the crack depends on the total amount of deposited mercury, so that with a sufficiently large amount of mercury, a crack can be formed that breaks the plate in two. A similar phenomenon — a sharp drop in the tensile strength of amalgamated zinc with increasing  $q$  — was also observed in tension tests. Orig. art. has: 3 figures.

[MS]

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 15Dec64

ENCL: 00

SUB CODE: MM, 45

NO REF Sov: 011

OTHER: 000

ATD PRESS: 4078

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Card 2/2

I 14429-66 EWP(m)/EWP(w)/EPF(n)-2/T/EWP(t)/EWP(b) IJP(c) JD/WW/JL/WB  
ACC NR: AP6002109 SOURCE CODE: UR/0369/65/001/006/0643/0647

AUTHOR: Traskin, V. Yu.; Goryunov, Yu. V.; Den'shchikova, G. I.; Summ, B. D.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Some aspects of adsorptive decrease in the strength of polycrystalline zinc  
in the presence of gallium

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 6, 1965, 643-647

TOPIC TAGS: zinc, gallium, brittleness, free energy, nonferrous liquid metal

ABSTRACT: The brittle failure of polycrystals in contact with metallic melts is thought to be closely related to the adsorption of the melt on the grain boundaries (surfaces of excess free energy). Since the extent of the adsorption depends on the concentration of the adsorbed substance, the authors attempted to determine the quantitative relationship between the drop in the strength of a polycrystalline metal and the mass of the surface-active melt in contact with it. In the experiments, gallium was electrodeposited on zinc plates. After the electrodeposition, the plates were extended at the rate of 2 cm/min at room temperature (gallium being still in the molten state), and the dependence of the

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ACC NR: AP6002109

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strength  $P$  of the samples was studied as a function of the quantity of gallium  $q = \text{m/S}$  per unit area of the external surface. It was found that the decrease in the strength of zinc polycrystals coated with gallium is due mainly to the decrease in the free energy at the grain boundaries as a result of the adsorption of gallium atoms. A quantitative scheme of the failure process is proposed which accurately reflects the linear character of the dependence  $P = P(q)$  and permits a correct estimate of the strength of gallium-coated zinc as a function of the quantity of gallium and the structure and thickness of the sample. On this basis, all the factors promoting the adsorptive decrease in the strength of metals are divided into two main groups: (1) intensive factors, which affect the degree of weakening of the interatomic bond in the solid metal, and (2) extensive factors, which determine the proportion of weakened bonds relative to the total number of bonds broken when the sample fails. Authors are deeply grateful to Ye. D. Shchukin, Dr. of Physicomathematical Sciences, for valuable suggestions during the discussion of this work. Orig. art. has: 2 figures and 5 formulas.

SUB CODE: 11, 07 / SUBM DATE: 20Jan65 / ORIG REF: 009 / OTH REF: 001  
Liquid metal corrosion 18, 44, 318  
brittleness 12

2R  
Card 2/2

DENSHTEYN, G. Kh.

3(5) PLATE I BOOK EXPLORATION Sov7/1827  
Vsesoyuznyi nauchno-issledovatel'skiy geologorazvedchichiy institut  
Geologiya i nafto-gazokonost' Tugo-vostochnyy rayona Russkoy platformy/ sbornik statey (Geology and Oil and Gas Bearing Characteristics of the Southeastern Regions of the Russian Platform). Collection of Articles. Leningrad. Gosizdatgizdat. 1958. 242 p. Errata slip inserted.

Repr. Ed.: Ya.S. Kravtsov. Eds.: M.S. Burmistrov, N.S. Il'inskaya, and S.A. Saburovskiy. Tech. Ed.: A.B. Yashchurianskiy; Executive Ed.: N.Y. Kulikov.

REPORT: This book is intended for petroleum exploration geologists, particularly those interested in the Russian Platform area.

CONTENTS: Some articles, originally read at a meeting of the Scientific and Technical Council of Ministry of the Petroleum Industry (1953), discuss the geological structure of the southeastern part of the Russian Platform, the planning of exploratory and prospecting work, and special problems in geobehavioral studies are aimed at realizing the oil and gas potential of the area. Representatives of VNIOMI, VNIIG, the Stalingradneftegazdistrust, Saratovneft', Kuzbassneft', and Uralsneft', contributed to the work. No references are given.

Card 1/5

eastern parts of the Russian Platform, the planning of exploratory and prospecting work, and special problems in geobehavioral studies are aimed at realizing the oil and gas potential of the area. Representatives of VNIOMI, VNIIG, the Stalingradneftegazdistrust, Saratovneft', Kuzbassneft', and Uralsneft', contributed to the work. No references are given.

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Geology and Oil and Gas Bearing (Cont.)	Sov7/1827
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✓ Soselova, Ye.I. Results of the Permian and Triassic Studies in the Priakaspidskaya Depression	120
✓ Denishchev, G.I.B. Tectonic Structure of the Northern Part of the Kostyora area and the Western Part of the Stalin-gradskaya Oblast'	130
✓ Gribkin, Ye.A. Results of Studies Made by the Stalingradneftegazdistrust Front on the Structures Adjacent to the Priakaspidskaya Depression	146
✓ Karpen', P.A. The Devonian of the Stalingradskaya Oblast'	161
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Ryabchenko, N.M. Basic Features of the Tectonics and Paleogeography of the Stalingradskaya Povolzhye	182

Card 1/5

DENSKEVICH, A. S.

"Physicomorphological and Biochemical Changes in the Blood During Necrobacillosis of Horses Under Herd Conditions." Cand Vet Sci, Inst of Veterinary Science, Kazakh Affiliate VASHNIL, Alma-Ata, 1953. (RZhBiol, No 5, Mar 55)

SO: Sum. No. 670, 29 Sep 55—Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

*DE*  
DENNSMAA, D.

~~Ulan Bator carbonic acid spring. Vop.kur,fisioter. i lech.fiz.  
kul't. 23 no.1:77-78 '58.~~ (MIRA 11:3)

1. Glavnnyy vrach sanatoriya "Arshan-kombinat" Ulan-Bator (Mangoliya)  
(ULAN BATOR—MINERAL WATERS)  
(HEALTH RESORTS, WATERING PLACES, ETC.)

L 58741-65 EWP(a)/EWP(k)/EWP(h)/EWA(3)/EWP(1)/EWP(v) pf..4

ACCESSION NR: AR5002379

S/0271/64/00D/010/A013/A014

621.398.694.4-531.7

SOURCE: Ref. zh. Avtomat., telemekh. i vychisl. tekhn. Sv. t., Abs. 10/1105

17

b

AUTHOR: Chandler, R.; Dent, Ye.

TITLE: New method of compensating the temperature increment of resistance in tensometers

CITED SOURCE: Sb. Vysokotemperat. tenzodatchiki. M., Mashgin, 1963, 184-196

TOPIC TAGS: tensometer, high temperature tensometer

TRANSLATION: Theoretical premises and a method of compensating the temperature increment of resistance by means of an additional chromel-alumel thermocouple having a linear characteristic up to 1000°C are considered. The circuit diagram of a 24-channel-input bridge is presented. The method ensures measurement at rapidly changing arbitrary temperatures. Six illustrations.

SUB CODE: TD, IX

ENCL: 00

d/jp  
Card 1/1

BRYAKIN, M.I.; DENTAGINA, T.P.

A decade of experience in the treatment of stenosing diseases of  
the esophagus and cardia. Trudy Inst.klin.i AN Kazakh.SSR 5:38-  
47 '59. (MIRA 13:5)  
(DIGESTIVE ORGANS--DISEASES) (CANCER)

DENUS, Slawomir; MALECKI, Bronislaw

Isotope measuring instruments in coking plants. Koks 7  
no.1:20-26 Ja-F '62.

1. Zaklady Koksoownicze Zdzieszowice i Wojskowa Akademia  
Techniczna w Warszawie.

ACCESSION NR: AP4026371

P/0034/64/000/003/0112/0114

AUTHOR: Czarnecki, Jerzy (Charnetski, E.) (Doctor of engineering); Denus, Slawomir (Master engineer); Kowalik, Stanislaw (Kowalik S.) (Master engineer)

TITLE: Type MDR-1 electronic pipe length measuring instrument

SOURCE: Pomiary, automatyka, kontrola, no. 3, 1964, 112-114

TOPIC TAGS: MDR-1 meter, MDR-1 electronic measuring instrument, pipe length measuring instrument, pipe length meter, pipe measuring meter

ABSTRACT: Measurement of pipe section lengths is an important problem in all tube mills as well as in various pipe warehouses. Pipe production is realized either in series of sections with an identical length or in series of sections with varying lengths. In the first case, the length for a given series is measured by calculating the number of sections and multiplying this result by the length at one section. In the second case, each section length has to be measured separately and the results then have to be totalled. Both methods are primitive, time-consuming and inaccurate. The MDR-1 electronic pipe length meter, automatically measuring the pipe length, is designed to replace the two above-mentioned methods. The MDR-1 device measures the length of each section with an error not exceeding  $\pm 1$  cm, automatically totals

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ACCESSION NR: AP4026371

the length of the sequentially measured pipe sections, and totals the number of pieces of the measured pipe sections. The device has the following measuring range: (1) combined length of sections in the series - 100 km =  $10^7$  cm; (2) number of pipe sections in a series - 10,000 pieces. The MDR-1 has the following advantages in comparison to the previous methods: (1) small error of measurement; (2) elimination of subjective reading error; (3) automatic recording of measurement result in scale-of-ten system; (4) large capacity; (5) combining of the length measuring and weighing cycles; (6) reduction of labor by 66%. Article gives a detailed description and operation. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 15Apr64

ENCL: 00

SUB CODE: LE

NO REF Sov: 000

OTHER: 000

Card 2/2

**Cartan, Henri, et Deny, Jacques.** *Le principe du maximum en théorie du potentiel et la notion de fonction surharmonique.* Acta Sci. Math. Szeged 12, Léopoldo Fejér et Frederico Riesz LXX annos natis dedicatus, Pars A, 81-100 (1950).

In classical potential theory in Euclidean  $n$ -space  $R^n$ , there are two fundamental problems, (i) the equilibrium problem, and (ii) the "sweeping out" of mass onto a given closed set. A solution to problem (i) is based upon the following "first principle of the maximum" due to Frostman [Thesis, University of Lund, 1935] and Marja [Proc. Natl. Acad. Sci. U. S. A. 20, 485-489 (1934)]: If  $\mu$  is a positive mass distribution with compact support, and if  $U^\mu$  is its potential function, and if  $U^\mu$  is dominated by the constant  $c$  on the support, then  $U^\mu \leq c$  throughout  $R^n$ . As M. Riesz has shown, by means of Kelvin transformations, the solution to (i), and a limiting process, one can obtain a solution to (ii). But the present authors wish to obtain a solution to (ii) independent of (i); to do this they isolate the following "second principle of the maximum." If  $U^\mu$  and  $V^\mu$  are the potentials due to positive mass distributions of finite energy, and if  $U^\mu \leq V^\mu$  except on a set of  $\mu$ -measure zero, then  $U^\mu \leq V^\mu$  throughout  $R^n$ . The conjunction of the two principles above is called "the complete principle of the maximum."

The present authors (and the reviewer) use the definitions and notation associated with H. Cartan, Brelot, and L. Schwartz [see Deny, Acta Math. 82, 107-183 (1950); these

Rev. [2, 98]. In the first section of the paper, the authors consider kernels  $K(x)$  which are measures of positive type and which are "of slow growth"; they then define several classes of nonnegative functions, in terms of which they give several necessary and sufficient conditions in order that the second principle of the maximum hold. They give next necessary and sufficient conditions that a given kernel admit affirmative replies to the problems (i) and (ii) above; one such condition is that the complete principle of the maximum prevail. In the second section of the paper, the authors consider "regular" kernels  $K(x)$ , by means of which they obtain results analogous to certain classical ones. For example, if  $\mu$  is a measure of finite energy, then there exists a sequence of measures of compact support  $\{\mu_n\}$ , such that  $\mu_n \uparrow \mu$ ; moreover,  $U^\mu \uparrow U^\mu$  throughout  $R^n$  (Evans-Vasilescu, essentially). The authors obtain a necessary and sufficient condition that a regular kernel admit the complete principle of the maximum; they then associate a family  $\mathfrak{S}$  of distributions  $\{\sigma\}$ , with each kernel admitting the complete principle of the maximum, to obtain the following analogue of a result due to F. Riesz [Acta Math. 54, 321-369 (1930)]. If  $U^\mu$  is the potential generated by the distribution  $\mu$ , then  $U^\sigma(x) \geq \int U^\mu(x+y) d\sigma(y)$ , for all  $\sigma \in \mathfrak{S}$ ; i.e., potentials  $U^\mu$  are "superharmonic." A converse is also obtained. The authors promise a sequel to the present paper in which the potentials of order  $\alpha$  of M. Riesz and Frostman will be examined.

M. Reade (Ann Arbor, Mich.)

Source: Mathematical Reviews.

DEMES, Miklos; DENY, Miklos

Fine turning and fine boring with Hungarian-manufactured Fa-hard metal tips. Finommechanika 2 no.1:27-30 Ja '63.

1. Szerszamgejlesztő Intézet.

BRYAKIN, M.I., zasluzhennyj deyatel' nauki, prof.; DENYAGINA, T.B.,  
dotsent.

Operations of choice in cancer of the thoracic section of  
the esophagus. Zdrav. Kazakh. 23 no.2:8-11 '63. (MIRA 16:10)  
(ESOPHAGUS—CANCER) (ESOPHAGUS--SURGERY)

ACCESSION NR: AP4006841

S/0120/63/000/006/0176/0177

AUTHOR: Denyak, V. M.; Sidorenko, L. I.

TITLE: Nuclear resonance phase detector used in electromagnetic field stabilizers

SOURCE: Pribory\* i tekhnika eksperimenta, no. 6, 1963, 176-177

TOPIC TAGS: phase detector, nuclear resonance, electromagnetic field stabilizer, nuclear magnetic resonance

ABSTRACT: A phase detector is briefly described which comprises two amplifiers using one 6N1P double triode tube, a trigger unit using one 6N3P double triode for separate anode triggering, and two shaping stages employing one 6N3P double triode. One amplifier is intended to pass even nuclear-resonance pulses, the other the odd pulses. Both are gated by the trigger pulses for the duration of  $\tau_{trig}$ . Output pulses from the trigger anodes are fed to

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storage capacitors. If the nuclear-resonance signal appears with a zero modulating field, the d-c components on the capacitors are equal. If the field varies by  $\Delta H$  from its resonance value, the difference between charges will be proportional to  $\Delta H$ . The time constant of the phase detector depends on the frequency of the nuclear-magnetic-resonance signal and can be brought to 20 or 30 microsec for modulation frequencies as high as 400 cps. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 22Dec62 DATE ACQ: 24Jan64 ENCL: 00

SUB CODE: SD NO REF SOV: 000 OTHER: 000

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