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Olsh, Gyorgy

hot. the filtrate poured into 0 kg. ice, shaken 3 times with Et₂O in 50-ml. portions, and the ext. dried with Na₂SO₄ and distd. gave *p*-FC₆H₄CH(OH)Me, b_p 103-6°, dehydrated by standard procedure to *p*-FC₆H₄CH=CH₂, b_p 26-9°, which polymerized on standing.

H. Whittaker

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PAVLATH, A.

Distr: 4E2c(j)

7

Synthesis of organic fluorine compounds. XII. Nitration of fluorobenzene: György Oláh, Attila Pavlath, I. Kuhn, and Gy. Varsanyi (Central Research Inst. Chem., Hungarian Acad. Sci., Budapest); *Acta Chim. Acad. Sci. Hung.* 7, 431-42 (1955) (in English); cf. *C.A.* 50, 11261a; 52, 5283i. — PhF was nitrated by the following methods and the proportion of $FC_6H_4NO_2$ isomers formed detd. from the ultraviolet absorption spectra (reagents, % yield, temp. of reaction, and % *p*-, *o*-, and *m*-isomers given): 35 g. HNO_3 (sp. gr. 1.41) and 123 g. concd. H_2SO_4 , 84.5, -10° , 90.8, —; 40 g. $H_2SO_4 \cdot H_2O$, 23 g. 80% H_2SO_4 , and 30 g. $NaNO_2$, 65, 60-70°, 90, 8, —; $AcONO_2$, 71.2, 0°, 96, 4, —; $BrONO_2$, 60.2, cooled, 100, —, —; $CCl_4 + N_2O_5$, 93.8, cooled, 72, 28, —; liquid N_2O_5 , — (5.5 g. from 25 g. PhF), room temp., 78, 16, 6; N_2O_5 vapor, — (4 g. from 96 g. PhF), 130° , —, 90, 10. Ionic reactions give largely *p*-isomers/mixed type give 72-8% *p*- and 16-28% *o*-isomers, and the presumably radical type mechanism 90% *o*- and 10% *m*-isomers. 1,2,4- $FC_6H_3(NO_2)_3$ (I), b, 153-6°, was prepd. in 49% yield from 57 g. PhF with 70 g. $H_2SO_4 \cdot H_2O$ and 76 g. fuming HNO_3 at -5 to 0° in 24.8% yield from 101 g. 2,4- $Cl_2C_6H_3(NO_2)_2$ in 101 g. PhNO, heated 2 hrs. at $105-10^\circ$ in ultraviolet light with 20 g. dry KF, and the process repeated 3 times, and in 79.8% yield, m, 24°, from 4 g. PhF cooled and stirred with 9.5 g. N_2O_5 added in small portions. I (1 g.) added to 4 g. 80% oleum at 0° with 3 g. $H_2SO_4 \cdot H_2O$ and 3 g. fuming HNO_3 , the mixt. heated to 90° 2 hrs. and to 130° 10 hrs., cooled, and poured onto ice yielded 36% *syn*- $FC_6H_3(NO_2)_3$ (II), m, 35°. Further nitration of 5 g. I with 5 g. N_2O_5 added with cooling, the mixt. warmed slowly, heated 1 hr.

on a boiling H_2O bath, cooled, poured on ice, and the ppt. dried *in vacuo* yielded a mixt. contg. 54% II. II is explosive. Curves of the absorption spectra of *o*-, *m*-, and *p*- $FC_6H_4NO_2$, between 2700-3000 Å, are given and the method of quant. analysis by absorption spectra (Varsanyi, *C.A.* 50, 7666i) simplified for mixts. of products of identical mol. wt. XIII. Derivatives of 2-fluoroethylurethan. György Oláh, Attila Pavlath, and László H. Nuszka, *Ibid.* 443-9; cf. *C.A.* 49, 6094i; 52, 3691f. — The following 2-fluoroethylurethans, $RNHC(O)(CH_2)_2F$, were prepd. by adding 0.1 mole $ClCO_2(CH_2)_2F$ (I) to 0.3 mole RNH₂, cooled in 50 ml. Et_2O , allowing the mixt. to stand overnight, filtering if necessary, drying the filtrate, and *evapg.* the Et_2O (R, cryst. solvent, m.p., and % yield given): *Ph*, —, 64-5°, 83.7; *o*- MeC_6H_4 , —, 74-5°, 76.1; *m*- MeC_6H_4 , —, b, 171-4°, 68.0; *p*- MeC_6H_4 , —, 59-60°, 82.7; *p*- FC_6H_4 , hexane, 76°, 80.8; *p*- $FC_6H_4CH_3$, ligroine, 58-9°, 83.8; *p*- ClC_6H_4 , hexane, 64°, 60.8; *p*- BrC_6H_4 , hexane, 94°, 94.0; *p*- $I_2C_6H_3$, hexane, 111-12° (yellow crystals), 82.3; *o*- NC_6H_4 , 30% EtOH, 82° (yellow crystals), 88.7; *m*- NC_6H_4 , 30% EtOH, 51-2°, 81.1; *p*- NC_6H_4 , 30% EtOH, 124-5° (yellow), 88.7; *N*-phenyl-*N*-methyl, —, — (b, 125-7°), 92.4; *N*-phenyl-*N*-ethyl, —, — (b, 118-20°), 86.3; α -pyridyl, EtOH, 123.5°, 81.4; β -pyridyl, EtOH, 106°, 75.9; γ -pyridyl, EtOH, 130°, 80.2; *N,N*-bis(2-chloroethyl), —, — (b, 130-40°), 87.8; *N*-(1-hydroxy-2,2,2-trichloroethyl) (II), Me_2CO , 92°, 63.3; *N*-(2,2,2-trichloroethylidene), —, 121°, 85.1. Similarly prepd. were: *N,N'*-ethylene-2-fluoroethyl-diurethan, H_2O , 115°, 94.2; *N,N'*-(2,2,2-trichloroethylidene)-2-fluoroethyl-diurethan, Me_2CO , 159°, 65.3;

Synthesis of organic ...

2-fluoroethylurethan *N*-(2-fluoroethyl)carboxylate, Me_2CO , 08-9°, 16.4. With esterase blocking agents (e.g. diisopropyl fluorophosphate), toxic doses of these compds. administered to animals produced no toxic symptoms. The compds. are being tested as growth inhibitors for exptl. cancerous tumors. XV. Decomposition reactions of derivatives of fluoroacetic acid. György Oláh, Attila Pavláth, and Gyula B. Major. *Ibid.* 481-3.—Fluoroacetates (I) with NH_4OH give the fluoroacetamide whose 15% H_2O soln. is stable. This soln. treated with chloride of lime (Hofmann reaction) decomp. completely. 2-Fluoroethanol (II) is also completely decompd. on alk. oxidation with chloride of lime. Biol. effects of I and II are similar. XVII. Preparation of 2-fluoroethylamine. György Oláh and Attila Pavláth. *Ibid.* 481-3.—See *C.A.* 50, 10042a.

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PAVLATH, A.

8 1

✓ 2909. Synthesis and Investigation of Orange Fluorine
 Compounds. XII. Nitration of Fluorobenzene. XIII. De-
 rivatives of 2-Fluoro-Ethyl Urethane. (English.) Gy. Olah
 A. Pavlath, I. Kuhn, Gy. Varsanyi, and L. H. Noszko. *Acta
 Academiae Scientiarum Hungaricae*, v. 7, nos. 3-4,
 1955, p. 431-448.
 Includes graphs, tables. 20 ref.

5 M. A. YOUTZ
2 copies

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ring and ultraviolet irradiation. High, sulfur dioxide gas, 100%
distill. and the residue distill. under reduced pressure to yield
34.0 g di-Me thiofluorophosphate, b.p. 62-70°. In the same
suspension of 1.2 g. in 20 ml. V. the mixt. remains clear

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PAVLATH, A.; OLAH, GY.; KUHN, I.

Synthesis of fluorine organic compounds. IX. Monomolecular reduction of fluoronitrobenzenes. X. Bimolecular reduction of fluoronitrobenzenes. X. Bimolecular reduction of fluoronitrobenzenes. XI. Preparation of several aromatic fluorine derivatives. In English. p. 65.

Vol. 7, no. 1/2, 1955

SOURCE: Monthly list of East European Accessions, (EEAL), LC, Vol. 5,
No. 3, March 1956

PAVLATH, A.

12 Preparation and properties of organic fluorine
 compounds. XII. The nitration of fluorobenzene. III.
 Derivatives of 2-fluoroethylurethane. (In English)
 PAVLATH, A. KUMAR, G. V. V. S. S. V.
 Indian Journal of Pure and Applied Chemistry, Vol. 7, 1955, No. 3-4, pp. 431-440, 2 figs.,
 4 tabs.

Fluorobenzene was successfully nitrated in the
 liquid and in the vapour phase by using a nitrating
 acid, acetyl nitrate, benzoyl nitrate, nitrogen pentoxide,
 or nitrogen tetroxide. In the experiments for the pre-
 paration of di and tri-nitro derivatives the authors
 succeeded for the first time to prepare peryl fluorid.
 Starting from 2,4-dinitrochlorobenzene the 2,4-dinitro-
 fluorobenzene was prepared by ultraviolet catalyzed
 halogen exchange reaction in the presence of alkali-
 fluorides. Twenty-five new derivatives of 2-fluoroethyl-
 urethane were prepared and their biological evaluation
 is in progress.

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Parlath, A.

13. Preparation and properties of organic fluorine compounds, XV. The decomposition reactions of fluoroethylamine derivatives, XVI. The preparation of 2-fluoroethylamine. (In English). Gy. Olah, A. PAVLATH
 Magyarica, Vol. 7, 1955, No. 3-4, pp. 451-453.

It was found that fluorosulfonic acid and 2-fluoroethanol are easily decomposed in alkaline media by the action of chloride of lime although they - especially fluoro-

sulfonic acid - were known as extremely stable and resistant compounds. The compound 2-fluoroethylamine was prepared in yields of 7.5% by the lithium aluminum hydride reduction of fluoroacetamide.

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PAVLATH, A.

PAVLATH, A. Synthesis and investigation of fluorine organic compounds. VI.
Preparation of fluorophosphoric acid dealkylates and thiofluoro-
phosphoric acid dialkylates. In English. p. 41.

Vol. 8, no. 1/3, 1955
ACTA CHIMICA
SCIENCE
Budapest, Hungary

See: East European Accessions, Vol. 8, no. 5, May 1956

PAVLATH, A.

HUNGARY/Organic Chemistry. Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19232.

Author : Olah Gy., Pavlath A., Kuhn I., Herr F.

Inst :

Title : Synthesis of Organic Fluorine Compounds. XVI. Preparation of Fluorine Derivatives of Pyribenzamine.

Orig Pub: Magyar Tud. Acad. Kem. Tud. Oszt. Kozl., 1955, 6, No 3-4, 327-330.

Abstract: Three methods of synthesis of fluorine derivatives of pyribenzamine (N,N-dimethyl-N'-benzyl-N'-(α -pyridyl)-ethylene-diamine) are developed. o- and m-fluoropyribenzamines (I and II) were obtained and their antihistamine activity was compared. In a guinea-pig, 1 γ of histamine neutralizes the action of 0.05-0.1 γ m-fluoropyribenzamine (III), 1 γ II and 10 γ I. I, II, III are less toxic, than other haloid substituted pyribenzamines. 0.1 mole N,N-dime-

Card : 1/3

PAVLA TH, A

10. Synthesis and investigation of organic fluorine compounds. XVIII. Synthesis of several new di- and trihalogen fluorobenzenes by the Balz-Schiemann reaction. (In English) Pavla Th, Gy. OLA. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. 10, 1956, No. 1-3, pp. 227-232

Starting from the corresponding halogenated anilines the following new di- and trihalogen fluorobenzenes were prepared by the Balz-Schiemann reaction: 2,6-dichloro-fluorobenzene, 2,6-dibromo-fluorobenzene, 2,3,5-trichloro-fluorobenzene, 2,3,5-tribromo-fluorobenzene, 2,4,5-trichloro-fluorobenzene, 2,4,5-tribromo-fluorobenzene, 2,3,5-trichloro-fluorobenzene, 2,3,5-tribromo-fluorobenzene, 2,4,6-tribromo-fluorobenzene and 3,4,5-tribromo-fluorobenzene. The compounds 2,4-dichloro-fluorobenzene and 3,5-dichloro-fluorobenzene were prepared by this reaction sequence (these compounds are mentioned in literature without any data; moreover the 2,5- and 3,4-dichloro-fluorobenzenes were obtained by this method (these compounds were prepared so far by an indirect method, the Sandmeyer reaction). The corresponding trihalogen fluorobenzenes were prepared by a different method for comparison and it was proved that no migration of the substituents takes place during the Balz-Schiemann reaction.

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PAVLÁTH A

~~Isolation of the stable boron trifluoride-hydrogen fluoride~~
~~complexes of the methylbenzenes - the anion (or complex)~~
~~structure of the Friedel-Crafts complexes. G. Olah,~~
~~I. Kuhn, and A. Pavlath (Hung. Acad. Sci., Budapest).~~
~~Nature 178, 805 (1953); cf. McCullay, et al., C.A. 45,~~
~~933h. Stable BF₃-HF complexes of some methylbenzenes~~
~~were isolated at low temp. Melting points and specific~~
~~cond. of the following complexes were detd.: toluene, -65°,~~
~~0.8 × 10⁻³ ohm⁻¹ cm.⁻¹; m-xylene, -55°, 2.0 × 10⁻³~~
~~ohm⁻¹ cm.⁻¹; m-silylene, -15°, 1.3 × 10⁻³ ohm⁻¹ cm.⁻¹;~~
~~isodurene, -10°, 0.6 × 10⁻³ ohm⁻¹ cm.⁻¹. J. M.~~

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PAULATH A

7 27 27
 The benzotrifluoride-nitryl fluoride-boron trifluoride complex. (Hung. Acad. Sci., Budapest). *Nature* 178, 166 (1957).
 Addn. of 0.1 mole BF_3 in small portions to 0.1 mole NO_2F at -80° was followed by addn. of 0.3 mole BF_3 at -10° . On warming to -10° 0.1 mole BF_3 was evolved. The yellow solid complex stable up to -50° was a 1:1:1 compd. of the substances. It decompd. to give a high yield of $\text{m-O}_2\text{NC}_6\text{H}_4\text{CF}_3$. A possible structure was postulated for the complex.
 William B. Guenther

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PAYLATH, A.

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27 7
Silver tetrafluoroborate as a catalyst in electrophilic aromatic substitutions. G. Olah, A. Paylath, and J. Kuhn (Hung. Acad. Sci., Budapest). *Chem. & Ind. (London)* 1947, 80. — AgBF₄ (Sharps, *C.A.* 47, 4777f) is an efficient catalyst for the title reactions. It is believed to form an intermediate complex with aromatic compounds. When, e.g., a halide reacts with the complex, Ag halide is eliminated.

Charles M. Stewart

PM for Lang

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-4E3d

A. Pavlov

Distr: 4E2c/4E3c/4E3d/4E2c(J)

(Attila)

41. A study of the electrophilic deuteration of toluene by deuterium fluoride and boron trifluoride. GY. OTI. A. Pavlov, L. Kuhn, Gy. OIAH, L. N. OSARK. Magyar Tudományos Akadémia Kémiai Tudományok Osztályának Közleményei. Vol. 9, 1957, No. 1, pp. 39-43.

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In the course of the studies on electrophilic aromatic deuteration the reaction with deuterium fluoride was investigated in the presence of boron trifluoride. A simple, new laboratory procedure has been developed for the preparation of deuterium fluoride through the deuteration of organic acid fluorides such as benzoyl fluoride. Nuclear deuteration experiments have been made by substituting toluene. A study of the intermediary complexes of the electrophilic aromatic substitutions revealed that complexes of methylbenzenes with hydrogen fluoride and boron trifluoride consist in fact of protonated methylbenzenes of the onium ion salt (or a complex) type.

7-99

JIRA, Vladimír, dr.; BERNARD, František, dr.; URBANEC, Alfons, dr.;
LUHAN, Jaroslav, dr.; VOZKA, Vladimír, dr.; POLASEK, Jan, dr.;
PAVLATOVA, Jarmila, dr.; SVATOSOVA, Marie, dr.

Comments on the individual parts of the draft of the Czechoslovak labor code. Prace mzda 11 no. 1:15-60 Ja'63

(MIRA 17:8)

1. Pracovne právni oddeleni, Ustredni rada odboru (for Jira, Bernard, Urbanec, Luhan, Vozka, and Polasek).. 2. Pracovne právni komise, Ustredni rada odboru (for Pavlatova and Svatosova).

KRCILKOVA, M.; VINTERA, J.; PAVLATOVA, M.; ZMATLIKOVA, M.

Experiences in the therapy of rheumatic fever in 299 children
with salicylates and combined therapy (salicylates and hormones).
Cesk. pediat. 18 no. 11: 1037-1042 N° 63.

1. Laborator pro detskou pneumologii fakulty vseobecneho lekar-
stvi KU v Praze; vedouci: prof. dr. F. Blazek.

*

PAVLATOVA, Tanya [Pavlátová, Taňa]

Spared lives. IU. nat. no. 5:29-30 My '59. (MIRA 12:6)
(Prague region--Bees--Diseases and pests)

PAVLECKA, JAN

Vynálezy jich tvoreni, nova ochrana a lepsi vyuzivani. [Vyd. 1.] v. Brne, Zar, 1947.
138 p. [Inventions; their creation, new regulations for their protection, and
better exploitation of them. Bibl.]

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, LC., VOL. 3, NO. 1, Jan. 1954, Uncl.

PAVLEICHENKO, N. I.

Moving-Picture Theaters

Designing built-in movie theatres for Moscow. *Sov. Knuz. Mosk.*, 26, no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 195², Uncl.

Country : YUGOSLAVIA
Category: Cultivated Plants. Potatoes. Vegetables.
Cucurbits.

M

Abs Jour: RZhBiol., No 22, 1958, No 100305

Author : Pavlek, Paula
Inst : -
Title : The Effect of Different Sowing Dates and Different
Methods of the Treatment of Cauliflower seeds on
the Dates of Maturity and Increase in the Yield.

Orig Pub: Tehn. pregl., 1956, 8, No 6

Abstract: 1951-1953 studies of cauliflower varieties
Snezhnyy Shar and Erfurdszkaya Rannyaya showed
that with the growing of the seedlings in
cold beds, in the absence of air motion and

Card : 1/2

SUCEVEANU, Gheorghe, ing.; PAVENCO, Sorin, ing.

Sulfurizing pump components. Metalurgia constr mas 14 no.10:874-880
0 '62.

1. Institutul de studii, cercetari si proiectari tehnologice
pentru industria constructoare de masini si industria electrotehnica
(for Suceveanu). 2. Uzina de pompe si masini agricole (for Pavlenco).

PAVLENISHVILI, G. V.: Doc Med Sci (diss) -- "Material on the study of chronic
firearm osteomyelitis of the long hollow bones". Tbilisi, 1958. 24 pp (Tbilisi
State Med Inst), 200 copies (KL, No 6, 1959, 141)

PAVLENISHVILI, G. V.

Pavlenishvili, G. V. "The problem of the diagnostic value of satellite reaction in non-malignant growths," (Report), Trudy III Zakavkazsk. s"yezda K. Ibragimov, Yerevan, 1949 (on cover: 1949), p. 160-171.

SO: U-5240, 1 Dec. 53. (Letopis "Zurnal Inghil Statey, No. 25, 1949).

L 05249-67 EWP(1)/FUC GW

ACC NR: AP6018934

(N)

SOURCE CODE: UR/0203/66/006/003/0613/0614

AUTHOR: Nodia, M. Z.; Vekua, L. V.; Chelidze, Z. A.; Pavlenishvili, Ye. Sh.

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ORG: Tbilisi State University (Tbilisskiy gosudarstvennyy universitet)

TITLE: A method for studying the secular variations of the Earth's magnetic field before our era

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 613-614

TOPIC TAGS: geomagnetic field, earth magnetic field, secular variation, paleontology

ABSTRACT: In order to obtain data on the secular variations of the Earth's magnetic field before our era, the authors collected more than 300 samples of 50 objects, for six of which the directions of the astronomic meridian were determined. Since these objects were only roughly dated, they could not be subjected to conventional research techniques and a new method for studying the secular variations of accumulation on the basis of these objects had to be devised. Recent theoretical work indicates that the absolute intensity value of the earth's magnetic field undergoes variations, the periodicity of which has yet to be established. On the basis of paleomagnetic data it may be assumed that this period is not less than 5,000 years, while the period of secular accumulation variations is in the order of 1,000 years. It one uses as a point of

Card 1/3

UDC: 550.394

L 05249-67

ACC NR: AP6018934

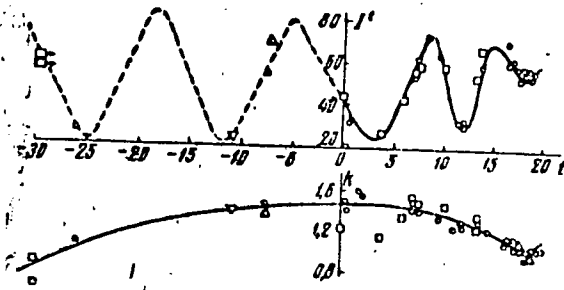


Fig. 1

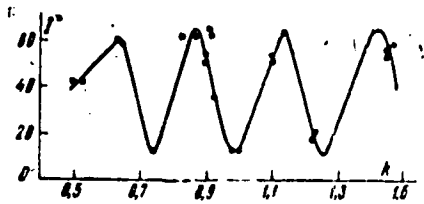


Fig. 2

departure the curve $k = f(t)$ before our era (Fig. 1) and if a curve $I = f(t)$ is plotted in conformity with measured values, such a curve will appear as shown in Fig. 2. It is clear from an analysis of this curve that the character of the cumulative change was sinusoidal even before our era for the territory of the Georgian SSR, while the double amplitude lies in a range of 10–60°. If these results are compared with S. P. Burlatskaya's curve (Sb. "Magnetizm gornykh porod i paleomagnetizm". Izd-vo SO AN SSSR, 1963, 245), all the points will be found to lie on Burlatskaya's hypothetical curve (Fig. 3). The points for samples ascribed to the earliest eras, for which $k = 0.5$, agree well with the logical extension of the $k = f(t)$ curve, by which they can be tentatively dated as belonging to the 35th century B. C. The

Card 2/3

L 05249-67
ACC NR: AP6018934

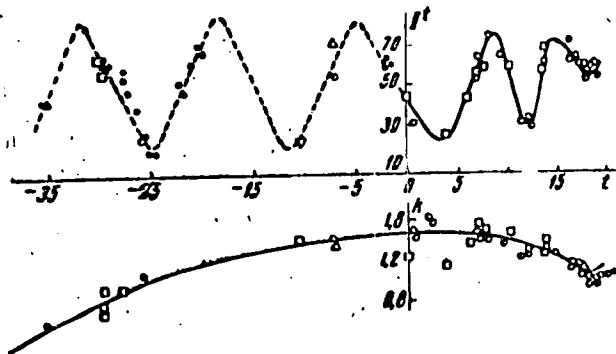


Fig. 3

cumulative value of these items, equal to 39—40°, falls quite satisfactorily on the descending branch of the sine curve $I = f(t)$ (Fig. 3). Thus, complete agreement is observed between the authors' results and those of Burlatskaya. In conclusion, the authors wish to express their gratitude to G. N. Petrova and S. P. Burlatskaya for their help. Orig. art. has: 3 figures.

SUB CODE: 08/ SUBM DATE: 08Jul65/ ORIG REF: 005

Card 3/3 *gd*

PAVLENKA Z D.

ACCESSION NR: AP4025749

S/0201/64/000/001/0110/0112

AUTHOR: Goraw, K. V.; Pawlenka, Z. D.

TITLE: Effect of iron on the solubility of aluminum in a solid

SOURCE: AN BSSR. Izv. Seriya fiziko-tekhnicheskikh nauk, no. 1, 1964, 110-112

TOPIC TAGS: iron, nickel, chromium, aluminum, iron containing alloy, nickel containing alloy, chromium containing alloy, aluminum containing alloy, nickel chromium iron system

ABSTRACT: To determine the limits of saturation in a solid γ -solution of aluminum and titanium in alloys with different nickel and iron content, the nature of the change of the solubility of aluminum in a solid γ -solution of the alloy Ni-Cr-Fe in the temperature interval 970-1370°K as a function of the quantity of iron was determined by micro-and x-ray analysis and by the measurement of electrical resistance. The four specimen groupings had an iron content of 0, 10, 20, and 40%. In each group the aluminum content varied from 0 to 6%. X-ray analysis was carried out on a URS-70 unit. It was found that iron shifts the saturation line of

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ACCESSION NR: AP4025749

the solid γ -solution to the side of lower aluminum concentrations. The first addition of iron (10%) acts more powerfully in changing solubility, especially at high temperatures. The shift of the solubility line in the case of iron additions greater than 10% proceeds more or less evenly at temperatures from 970 to 1270°K. Metallographic analysis shows also that with increased iron concentration the β -phase (Ni-1) appears in the alloy structure at lower aluminum concentrations. In alloys without iron the β -phase appears in the alloy structure when the aluminum content is 6-8%, and in the case of 40% iron, when the aluminum content is 4%.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 10Apr64

ENCL: 00

SUB CODE: MM

NO REF SO: 000

OTHER: 001

Card 2/2

ABSTRACT: The present paper summarizes the results of geophysical investigations of the Earth's crust and mantle performed since 1961 in the Epihercynian Kara-Kum platform and the folded Alpine region of Kopet-Dag. Magnetotelluric surveys and seismicity were conducted along a 100 km submeridional profile extending between Ashkhabad and Bakhardok. Several interfaces were investigated in the area near Ashkhabad. A geological cross section along the profile showing the structure of the Earth's crust and the upper mantle down to 85 km has been prepared

Card 1/2

ACC NR: AT6028368

from the geophysical data. The region lying between the Epihercynian platform and the geosyncline has been analyzed. The presence of lateral inhomogeneities in the mantle is noted. The presence of deep-seated faults is discussed, and their location and extent are determined. Orig. art. has: 1 figure.

SUB CODE: 08/ SUBM DATE: 06Jan65/ ORIG REF: 026/ OTH REF: 002

Card 2/2

PAVLENKIN, A.D.

Use of the method of least squares in "krakowiany" form in the interpretation of seismic hodographs of reflected waves. Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.3:53-62 '63.
(MIRA 17:3)

1. Otdel razvedochnoy geofiziki i seysmologii AN Turkmenskoy SSR.

L 47108-66 EWT(1)/FCC GI

ACC NR: AR6019884

SOURCE CODE: UR/0169/66/000/002/G001/G002

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AUTHOR: Mil'shteyn, D. M.; Avagimov, A. A.; Dubrovskiy, V. G.; Lykov, V.I.; Pavlenkin, A. D.; Solokhov, V. V.; Shikhanovich, E. L.

55
543

TITLE: The formulation of new trends of research on the structure of the Earth's crust and upper mantle in Turkmenistan by geophysical methods

SOURCE: Ref. zh. Geofizika, Abs. 266

REF SOURCE: Sb. Geol. rezul'taty prikl. geofiz. Geofiz. issled. stroyeniya zemn. kory. M., Nedra, 1965, 33-44

TOPIC TAGS: Earth crust, upper mantle, electromagnetic field, magnetotelluric probing, seismologic testing

ABSTRACT: Information on the structure of the Earth can be obtained by a magnetotelluric probing method of observation and interpretation of the recordings of various types of elastic waves, generated during natural earthquakes, and by studying the variations with different periods of the natural electromagnetic field of the Earth. This method is based on the study of the ratio of variations in the electric and magnetic components of the Earth's electromagnetic field.

Cord 1/2

UDC: 550.311:551.14(575.4)

PAVLENKO

USSR, Cultivated Plants - Fruits. Berries.

L-6

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69390

Author : Pavlenko

Inst :

Title : Agrotechnique of the "Funduk" (a Nut Variety)

Orig Pub : Kolhospnik Ukraini, 1956, No 10, 33-35

Abst : No abstract.

Card 1/1

PAVLENKO, A., kombayner.

Collective labor agreement in practice. Sov. prof'noyuzy 4 no. 8:28-30
Ag '56. (MIRA 9:10)

1. Predsedatel' zhilishchno-bytovoy komissii Panfilovskoy mashinno-
traktorney stantsii.
(Panfilove (Stalingrad Province)--Machine-tractor stations)
(Collective labor agreements)

Книжки

51(0); 3(0); 2(10) PHASE I BOOK EXPLOITATION SOV/2210

Atomnaya energiya v aviatsii i raketnoy tekhnike, sbornik statey (Atomic Energy in Aviation and Rocket Engineering). Collection of Articles. Moscow, Voen. Izd-vo M-vn ober. SSSR, 1955. 500 p. (Series: Nauchno-populyarnaya biblioteka) No. of copies printed not given.

Ed. - Compiler: P. F. Atsashenkov, Engineer, Lt.-Col; Ed.: Ya. M. Luder, Tech. Ed.: A. M. Gavrilov.

PURPOSE: This book is intended for officers of the Soviet Armed Forces, members of DCSAAF, and the general reader interested in the use of atomic energy and in the development of aviation and rocket engineering.

COVERAGE: This collection of 46 articles, compiled by 28 Soviet scientists and based chiefly on non-Soviet materials, discusses various aspects of the use of atomic energy in rocketry and aviation. The book surveys the development of atomic and thermonuclear weapons and weapon carriers, lays down the principles of anti-atomic defense, and evaluates the application of nuclear energy in aviation and rocketry. Fuel and construction materials, as well as actual physical and technological processes involved, are treated briefly. Fundamentals of atomic warfare and combat tactics are discussed at some length. The book is divided into four parts, of which the last consists chiefly of anti-atomic defense. Section I covers anti-atomic defense, especially the defense and decontamination of airfields and aircraft and defense against radiation. Section III is on the use of nuclear energy in modern aircraft and rocket technology and flight techniques, including some speculations on space travel and on the energy of the future. There are 126 figures and 35 non-Soviet references (some in Russian translation).

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Card 5/9

(5)

PAVLENKO, A.

Daringly introduce *new* methods and make better use of all resources. Sil'.bud. 7 no.12:5 D '57.
(MIRA 13:5)

1. Predsedatel' ispolkoma Bereznyanskogo rayonnogo Soveta deputatov trudyashchikhaya.
(Bereza District--Farm buildings)

PAVLENKO, A.; BAUSIN, A.; SMIRNOV, M.; KOGTEV, G.; SPIRIN, S.; NEKRASOV,
A.; BABAYAN, B.; CHELYSHEV, S.; BOGDANOV, A.; KOTILEVSKIY, D.;
KRYLOV, N.; SAVINOV, M.

N.I. Zakharov; obituary. Energetik 4 no.6:40 Je '56. (MLRA 9:8)
(Zakharov, Nikolai Ivanovich, 1898?-1956)

MOSIN, V.; PAVLENKO, A.

Calculating norms for the number of auxiliary workers in the
machinery manufacturing enterprises. *Biul.nauch.inform.:*
trud i zar.plata 3 no.9:17-23 '60. (MIRA 13:9)
(Machinery industry)

PAVLENKO, A.

Using momentary observations in repair work. Sots. trud 8
no.12:105-108 D '63. (MIRA 17:2)

PAVLENKO, A.

Determining the number of repair workers in an enterprise. Biul.
nauch.inform.: trud i zar.plata 4 no.6:29-36 '61. (MIRA 14:6)
(Voroshilovgrad--Diesel locomotives--Maintenance and repair)

PAVLENKO, A.A.

Manufacture of frozen fruits and vegetables. Kons. i ov.prom. 18 no.4:
19 Ap '63. (MIRA 16:3)

1. Konservnyy kombinat v Krymske.
(Fruit, Frozen) (Vegetables, Frozen) (Canning industry)

L 57102-65 EWT(1)/EWP(m)/EWT(m)/EPP(c)/EPP(n)-2/ENG(m)/EWA(d)/EPR/FCS(k)/
EWA(1) Pd-1/Pr-1/Ps-1/Pu-1 JD/WW

ACCESSION NR: AR4049251

S/0196/64/000/000/G011/G011

536.25

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 8063

36
B

AUTHOR: Pavlenko, A. A.

TITLE: Experimental determination of the effect of free convection upon the heat exchange and aerodynamic force when a flow crosses over a cylinder

CITED SOURCE: Tr. Kuybyshevsk. aviats. in-t, vyp. 15, ch. 2, 1963, 221-223

TOPIC TAGS: convection, aerodynamic force, heat exchange

TRANSLATION: Some results are reported of an experiment carried out on a set-up which consisted of an internally-heated cylinder mounted on an electrodynamic balance and placed in a wind tunnel. With a heated cylinder, the point of separation of the boundary layer on the upper surface shifted along the stream at low Re; at high Re, the separation point shifted toward the end of the cylinder; on the lower surface, the separation point did not change as in the case of a cold cylinder. The boundary layer on the lower cylinder surface remained laminar. The resistance of the heated cylinder was higher than that of the cold.

SUB CODE: MF

ENCL: 00

Card 1/1 282

PAVLENKO, A. F., Cand Pharm Sci -- (diss) "Synthesis of the β -derivatives of the hydrazone of thiazolidindione-2,4." Leningrad, 1960. 14 pr; (Ministry of Public Health Ukrainian SSR, L'vov Medical Inst, Leningrad Chemical Pharmaceutical Inst); 300 copies; price not given; (KL, 51-66, 142,

TURKEVICH, N.M.; PAVLENKO, A.F.

Synthesis of thiazolidone derivatives of biological interest.
Part 17: Ultraviolet spectra of 2,4-thiazolidinedione-2-hydrazone.
Zhur.ob.khim. 32 no.3:977-979 Nr '62. (MIRA 15:3)

1. L'vovskiy meditsinskiy institut.
(Thiazolidinedione--Spectra)

PAVLENKO, A. F.

Palimpsestov, M. A., Rodionov, P. S., and Pavlenko, A. F. "Results of treating monieziasis in calves", (Report), Sbornik rabot po gel'mintologii (Vsesoyuz, in-t gel'mintologii im. akad. Skryabina), Moscow, 1948, p. 156-57.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

ARKHANGEL'SKIY, Mikhail Michaylovich; PAVLENKO, A.A., dots., retsen-
zent; BESSONOV, I.I., dots., retsenzent; CHEBOTAREVA, A.V.,
red.; KARPOVA, T.V., tekhn. red.

[Course in physics; mechanics] Kurs fiziki; mekhanika. Moskva,
Gos. uchebno-pedagog.izd-vo M-va prosv. RSFSR, 1961. 407 p.
(MIRA 15:2)

1. Moskovskiy gosudarstvennyy universitet (for Pavlenko).
2. Kirovskiy pedagogicheskiy institut. (for Bessonov).
(Mechanics)

PAVLENOK, A.I.

Creative work of miners. Mast. ugl. : no.8:5 Ag '56.

(MLRA 9:11)

1. Mashinist ekskavatora Vostochnogo razreza kombinata
Dal'vostugol'.
(Coal miners)

PAVLENKO, A.L. (Moskva)

Propagation of waves in an elastic string. Izv. AN SSSR. Otd.
tekh.nauk. Mekh. i mashinostr. no.4:112-122 J1-Ag '59.
(MIRA 12:8)
(Elastic rods and wires) (Wave mechanics)

L 18640-63 EWT(m)/EWP(r)/BDS AFFTC/APGC EM
ACCESSION NR: AR3006444 S/0124/63/000/008/V015/V015

SOURCE: RZh. Mekhanika, Abs. 8V112 57

AUTHOR: Belonosov, S. M.; Pavlenko, A. L.; Pavlov, B. M.; Roslyakov, G. S.

TITLE: Transverse shock along a membrane with a circular aperture

CITED SOURCE: Sb. rabot Vy*chisl. tsentra Mosk. 'un-ta, v. 1, 1962, 183-208

TOPIC TAGS: circular aperture, transverse load, bursting, longitudinal wave, stress

TRANSLATION: The problem of the propagation of waves in an infinite elastic membrane under the influence of a transverse load, suddenly applied to the boundary of a stiff frame of a circular aperture is considered. It is supposed that the load in the initial instant causes speed V at the edge and with time this edge moves forward according to a given law. The force of resistance of the medium surrounding the membrane is taken into account. The differential equation of the problem is introduced; the obtained system has the property that the propagation of its longitudinal and transverse waves are described separately. The leading of fronts of these waves because of the shock character of the load are lines of bursting

Card 1/2

L 18640-63

ACCESSION NR: AR3006444

force. By these lines membrane at any moment of time is subdivided into three parts; the quiet region, the region of pure radial motion and the region of longitudinal-transverse motion. The problem is solved by the method of the characteristic, the condition on the lines of bursting force are determined from the laws of conservation of mass and momentum. Making the transition to finite difference equations, the author furnishes the computation equation for the points of the membrane which are found at the given moment in different regions of motion. As a numerical example, on the Strela computer the calculation for one variant of the problem, for which the initial velocity V_0 equal to $1/4$ of the velocity of propagation of the longitudinal waves was carried out. Graphs were constructed on which the shapes, speed and the acceleration of the boundary end as function of time, and position, deformation, and the stress state of the membrane for different moments of time were plotted. Yu. R. Lepik

DATE ACQ: 28Aug63

SUB CODE: AP

ENCL: 00

Card 2/2

L 00721-66 EWT(1)/ETC(m)

ACCESSION NR: AT5013295

UR/3043/65/000/004/0261/0286

AUTHOR: Pavlenko, A. L., Pavlov, B. M.

22
25
811

TITLE: Transverse impact on a flexible nonlinearly elastic membrane with a circular opening

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 4, 1965. Chislennyye metody v gazovoy dinamike (Numerical methods in gas dynamics), 261-286

TOPIC TAGS: transverse wave, longitudinal wave, nonlinear elasticity, elastic oscillation

ABSTRACT: The author previously presented a numerical solution of the wave problem concerning the propagation, in a flexible linearly elastic membrane, of a perturbation generated by a transverse load suddenly applied to the edge of a rigidly framed circular opening (Belonov S. M., Pavlenko A. L., Pavlov B. M., Roslyakov G. S. Sbornik rabot VTs MGU, "Vychislitel'nyye metody i programmirovaniye," vyp. I, 1962). The present paper represents a generalization of the problem to the case of a nonlinearly elastic membrane. Under this assumption, the problem became nonlinear in the physical as well as geometrical sense. Consequently, all four families of curves in the system of differential equations of the problem become

Card 1/3

L 00721-66

ACCESSION NR: AT5013295

curvilinear and a priori it is impossible to establish a characteristic lattice. Also, the widening of the boundary opening of the membrane is assumed to proceed according to a predetermined pattern. Depending on the character of the load applied to the boundary opening and the shape of the stress-deformation ($\delta \sim \xi$) diagram the forward fronts of the longitudinal and transverse perturbation waves may exhibit weak or very strong discontinuities. In particular if an impact is applied, both wave fronts are sharply discontinuous and, depending on the $\delta \sim \xi$ diagram, the longitudinal front may be either a sound front or a shock front. Both fronts propagate at different velocities. The paper presents the calculation for the case when under transverse impact the $\delta \sim \xi$ curve is chosen in such a manner that it leads to a sharply discontinuous transverse and longitudinal wave. The numerical calculations follow a modified method of characteristics outlined in the article and all the computational formulas are collected in an appendix. Orig. art. has: 80 formulas and 10 figures.

Cont 2/3

I 00721-66

ACCESSION NR: AT5013295

3

ASSOCIATION: Vychislitel'nyy tsentr, Moskovskiy Universitet (Computer Center,
Moscow University)

SUBMITTED: 00

44/53

ENCL: 00

SUB CODE: MA, ME

NO REF SOV: 002

OTHER: 000

Card 3/3

I 00720-66

ACCESSION NR: AT5013296

UR/3043/65/000/004/0287/0302

AUTHOR: Pavlenko, A. L., Pavlov, B. M., Roslyakov, G. S.

19
B+1

TITLE: Calculation of stresses in an infinite filament subjected to transverse impact of variable velocity

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 4, 1965. Chislennyye metody v gazovoy dinamike (Numerical methods in gas dynamics), 287-302

TOPIC TAGS: elastic stress, elastic deformation, material deformation, transverse wave

ABSTRACT: The paper investigates the solution of the wave problem concerning the stresses generated in an elastic stretchable filament of infinite length following a transverse impact of variable velocity. The strain-stress relationship is assumed nonlinear in general. The presentation of the basic equation and of the initial and boundary conditions is followed by a description of the wave patterns and an outline of the numerical calculation of the problem using the method of characteristics described by two of the present authors (A. L. Pavlenko, B. M. Pavlov, Sbornik rabot VIs MGU "Chislennyye metody v gazovoy dinamike," no. 4, 1965, pp. 261-286). Calculations are carried out for two different filaments, both

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L 00720-66

ACCESSION NR: AT5013296

obeying Hooke's law. Orig. art. has: 37 formulas, 6 figures, and 1 table.

ASSOCIATION: Vychislitel'nyy tsentr, Moskovskiy universitet (Computer Center,
Moscow University)

SUBMITTED: 00

ENCL: 00

SUB CODE: MA, ME

NO REF SOV: 004

OTHER: 000

JW
Card 2/2

24 (6)

AUTHOR:

~~Pavlenko, A. I.~~ (Moscow)

SOV/179-59-4-14/40

TITLE:

On the Propagation of Cracks in the Elastic Thread

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniya tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, 1959, Nr 4, pp 112 - 122 (USSR)

ABSTRACT:

After mentioning that the fundamental problems of the dynamics of the plastic-elastic flexible thread have been investigated by Kh A. Rakhmatulin (Refs 1, 2, 3), and the propagation of small cracks in flexible threads by N. Kristesku (Ref 4) and J.W. Craggs (Ref 5), small cracks are studied here by means of slightly different methods. The author uses a system of equations expressing separately the propagation of longitudinal and transverse disturbances. Thus, the author could obtain new ideas on the behavior of the parameters determining the motion and state of thread in the places of cracks. Special attention is paid to the theory of large cracks, to the conditions causing the cracks, their investigation, the kinds of cracks, and the origin of large cracks. The analysis of waves in the case of large cracks is made according to various methods. The conditions under which large cracks are possible are pointed out. These conditions, together with the equations

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On the Propagation of Cracks in the Elastic Thread SOV/179-59-4-14/40

for the dynamic and kinematic consistency, determine the cracks exclusively. It is shown that the large transverse waves always spread at velocity of sound, whereas the longitudinal waves are propagated either at velocity of sound or at a velocity different from it. Therefore, the heavy transverse waves are always sound waves, whereas the longitudinal waves are either sound- or shock waves. The existence of longitudinal-transverse waves, which may be light or heavy, was ascertained. All these kinds of waves may originate in the loading or unloading of the thread. There are 8 figures and 6 references, 5 of which are Soviet.

SUBMITTED: August 10, 1958

Card 2/2

BELONOSOV, S.M.; PAVLENKO, A.L.; PAVLOV, B.M.; ROSLYAKOV, G.S.

Transverse impact on a membrane with a round opening. Vych. met.
i prog. 1:183-208 '62. (MIRA 15:8)
(Strains and stresses) (Electronic calculating machines)

PAVLENKO, A. M.

Deceased c 1953

1961/I

Physics

See IIC

KATS, B. Ya.; PAVLENKO, A.M.

Diseases of workers exposed to styrene. Trudy Vor. med. inst.
47:73-75 '62 (MIRA 16:12)

1. Profpatologicheskoye otdeleniye 3-y klinicheskoy bol'nitsy g. Voronezha i Mediko-sanitarnaya chast' zavoda sinteticheskogo kauchuka im. S.M.Kirova.

PAVLENKO, A.M., fel'dsher

Treatment of burns at the feldsher-midwife center. Fel'd. 1
akush. 24 no.5:46-47 My '59. (MIRA 12:8)

1. Preobrazhenskiy fel'dshersko-akusherskiy punkt Stalinskoy
oblasti.

(BURNS AND SCALDS)

PAVLENKO, A.N., inzh.; GALKIN, Ye.G., inzh.

Launch with a jet-propulsion engine. Sudostroenie 29 no.3:39
Mr '63. (MIRA 16:4)
(Motorboats—Water jet engines)

PAVLENKO, A.P., inzh.

Combination of diversified operations in mass-production
shops. Vest. mashinostr. 43 no.6:70-72 Je '63.

(MIRA 16:7)

(Industrial management)

PAVLLENKO, A.S.; VAYNSHTEYN, E.Ye.; SHEVALEYEVSKIY, I.D.

Hafnium and zirconium ratio in zircons of igneous and metasomatic rocks.
Geokhimiya no.5: 351-367 '57. (MIRA 12:3)

I. V.I. Vernadskiy Institute of Geochemistry and Analytical Chemistry,
Academy of Sciences, USSR, Moscow.
(Tuva Autonomous Province--Zircon)
(Hafnium) (Zirconium)

AUTHORS:

3(5)
 Pavlenko A. S. and Kakhana M. V. SOV 01-5816 6 16

TITLE:

On the Nb and Ta Ratio in Some Minerals of Igneous and Metasomatic Rocks (Osnovnykh i nekotorykh mineralakh izvestnykh i metasomaticheskikh porod)

PERIODICAL:

Geokhimiya 1958 No. 6 pp 568 - 569 (USSR)

ABSTRACT:

Elements of very similar chemical properties as Nb and Ta, Zr and Hf, Th and U may serve as very sensitive indicators for geological processes. In the case of TR and Zr and Hf investigations were already carried out by the authors (Pavlenko et al.). The present paper deals with an investigation of the Nb/Ta ratio in minerals from the district of Vostochnaya Tura (Erdmanovskiy raion, Aksugelskiy raion, Orulinskiy raion, Balystyguenskiy raion, Terakhol'skiy raion, Agstinskiy raion, Dagdinskiy raion, Kikayaki, 19000, Guntayginskiy raion, Zhankhenskiy raion, Bayankol'skiy raion, Khosogolskiy raion). An X-ray structure analysis was made of 11 samples of columbite, fergusonite, cassiterite, pyrochlore and microlite. Most of the samples came from the Turanetskiy Geol. Institut.

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On the Nb and Ta Ratio in Some Minerals of Igneous and Metasomatic Rocks SQV/1-58 6-6/76

geokhimiya i analiticheskoy khimii im. V.I. Vernadskiy
AN SSSR (Department T-204 of the Institute of Geochemistry
and Analytical Chemistry im. V.I. Vernadskiy, AN SSSR
some were put at the author's disposal by V. I. Kudrin,
Yu. V. Mekhan and I. A. Nakhayeva. For X-ray analysis the
samples were glued to the anode of the X-ray tube (Fig. 1),
by CF-2. Nb K_{α} and K_{β} as well as Ta L_{α} were recorded on
"Agfa Isudat" X-ray film and their intensities determined by
means of the microphotometer MF-2. A big table shows the
results (in the order of the finding place, Table 1) and a
graphical survey (in the order of the type of rock, Fig. 3).
Table 2 reveals the upper and lower limit of the Nb/Ta
ratio in the individual minerals. Table 3 shows a compari-
son between the Nb/Ta and the Zr/Hf ratios in zircons from
the same samples or from samples which are very close
together. The Zr/Hf values are taken from a previous
paper (Ref. 5); a new analysis was made by V. D. Sokolov-
skiy. From the investigations carried out the following
may be concluded: in the investigated rocks the Nb/Ta
ratio depends mainly on the formation of magmatism and thus

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On the Nb and Ta Ratio in Some Minerals of Igneous
and Metasomatic Rocks

SOV/7-58-6-5/16

on the age of the rock. Younger complexes contain comparatively more niobium. In the minerals of a certain complex the Nb/Ta ratio keeps within the same limits. The alkali content of the rocks has no influence on the Nb/Ta ratio as is the case with the Zr/Hf ratio. Genetical factors influence the Nb/Ta ratio in the same way as the Zr/Hf ratio, however, to a smaller extent. Great changes occur only in the case of euxenites. There are 3 figures, 3 tables, and 8 references. 7 of which are Soviet.

ASSOCIATION: Institut geokhimi i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry ineni V.I. Vernadskiy, AS USSR, Moscow)

Card 3/3

AUTHOR: Pavlenko, A.S.

SIW 11-59-1-0/16

TITLE: Special Features of Metasomatism in One of the Districts of the Northern Part of the Krivoy Rog Basin (Osobennosti metasomatosa v odnom iz rayonov Severnogo Krivorozh'ya)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 1, pp 81 - 101 (USSR)

ABSTRACT: The metasomatic formations in the northern part of the Krivoy Rog basin were for a long time considered to be a result of successive metasomatic processes, and the mineralogic peculiarities of some of the formations were ascribed to specific compositions of metasomatic solutions periodically penetrating these rocks. The author made extensive structural, petrographic and chemical analyses of paragenetic associations of these metasomatic minerals in one of the districts of the northern part of the basin. His findings are based on the following criteria: 1) the general distribution and morphology of separated metasomatic rocks; 2) their correlation with the lithology and the structure of the initial regional metamorphic rocks; 3) the correlation of separated parageneses of metasomatic minerals be-

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Special Features of Metasomatism in One of the Districts of the Northern Part of the Krivoy Rog Basin

tween them: 4) the peculiarities of chemical affinity of separate parageneses of metasomatic minerals; 5) the sequence of replacement of metasomatic minerals and their parageneses by the other minerals; 6) the character of metamorphosis of minerals of variable composition. We came to the conclusion that all metasomatic formations of the district in question occurred by way of a differential transference of the substance of initial rocks as a result of a prolonged action of a single metasomatic solution, only sodium (Na) being added by the hydrothermal action in later stages. The diversity of the metasomatic rocks, their composition, morphology and correlations in the strata were conditioned by the lithology of the initial metamorphic rocks, by the mobility of their components and the tectonic preparation of different parts of the district, which determined the degree of the intensity of metasomatic processes. Detailed chemical analyses of various rock formations are given. The following geologists are mentioned

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Special Features of Metasomatism in One of the Districts of the Northern Part of the Krivoy Rog Basin

by the author: N.F. Anikeyeva, D.S. Korzhinskiy, I.V. Aleksandrov, A.I. Strygin and A.I. Tugarinov. There are 3 tables, 6 photos, 1 scheme and 18 references, 13 of which are Soviet, 1 American, 1 Indian, 1 Japanese, 1 Swedish and 1 South African.

ASSOCIATION: Institut geokhimi i analiticheskoy khimii im. V.I. Vernadskogo, Moskva (The Institute of Geochemistry and Analytical Chemistry imeni V.I. Vernadskiy, Moscow)

SUBMITTED: November 21, 1958

Card 3/3

3(8)

AUTHORS:

Pavlenko, A. S., Vaynshtayn, E. Ye.,
Tuzanskaya, N. V.

SOV/7-59-4-1/3

TITLE:

On Some Rules in the Behavior of the Rare Earths and Yttrium in
Magmatic and Postmagmatic Processes (O nekotorykh zakonomernostyakh
povedeniya redkikh zemel' i ittriya v magmaticheskikh i
postmagmaticheskikh protsessakh)

PERIODICAL:

Geokhimiya, 1959, Nr 4, pp 291 - 309 (USSR)

ABSTRACT:

The Middle Paleozoic sytkhol'skiy granite (γ Pz₂) and the somewhat
younger alkaline rock complex (Pz₂), which has two phases, were
investigated in the Vostochno-Tuvinskiy region. The rocks were
divided into the following groups: magmatic rocks, pegmatites,
autometamorphic rocks, and exocontact metasomatites, highly
hydrothermal dikes included. Only minerals with a sufficiently high
content of TR were examined so that the latter could be measured
immediately by X-ray fluorescence: pyrochlorino, fergusonite,
cuxenite, "eschynite", parisite, monazite, a mineral of the
"cherallito" type, "britholith", "chevkinite", orthite, and gadolinite,
furthermore also thorite, although its content is low. The
distribution of the samples to the different rock complexes and

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On Some Rules in the Behavior of the Rare Earths and Yttrium SOV/7-59-4-1/9
in Magmatic and Postmagmatic Processes

rock groups is shown in table 1. Totally 61 samples were investigated. The major part was supplied by the Tuvinskiy otryad (Tuva Department) of the Institut geokhimi i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR (Institute of Geochemistry and Analytical Chemistry im. V. I. Vernadskiy AS USSR), furthermore by Yu. V. Makhin, N. Ye. Kostin, V. I. Kudrin, and I. A. Nechayeva. The analysis method was already earlier published (Ref 1). The analysis results are given as quotients $\frac{M}{Nd}$ (M=TR or Y), i. e. in table 2 for the cerium minerals (33 samples), in table 3 for the minerals with cerium earths and yttrium oxides (14 samples), and in table 4 for the minerals with yttrium oxides (14 samples). A linear connection between the quotients of light lanthanides (La - Sm) (Fig 1) exists in cerium minerals. A maximum occurs in the case of Dy (Fig 5) in heavy lanthanides (Gd - Lu); this is a regional peculiarity. The fluctuations in the lanthanide content depend mainly on the age of the rocks, their alkalinity, and the genetic type of the mineral formation. The crystallochemical properties of the minerals determine the interval in the lanthanide series which is assumed in the lattice. The yttrium oxides are enriched towards the end of the

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On Some Rules in the Behavior of the Rare Earths and
Yttrium in Magmatic and Postmagmatic Processes

SOV/7-59-4-1/9

magmatic process; the nepheline syenites are enriched with cerium earths independently of their age. - Finally the geochemical behavior of Zr - Hf, Nb - Ta, and TR - Y is compared. The analyses necessary for this purpose were carried out by I. D. Shevalevskiy in the spektral'naya laboratoriya (Spectral Laboratory) of the institute mentioned in the Association (Table 5). The conditions are, however, very complicated in the case of the rare earths since the cerium earths are more mobile than the yttrium oxides, and yttrium itself is still more mobile than the last mentioned ones. There are 5 figures, 5 tables, and 10 Soviet references.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii AN SSSR im. Vernadskogo, Moskva
(Institute of Geochemistry and Analytical Chemistry, AS USSR, imeni Vernadskiy, Moscow)

SUBMITTED: October 23, 1958

Card 3/3

PAVLENKO, A.S.; SYAO CHEHUN-YAN; MOROZOV, L.N.

Comparative geochemical characteristics of granitoids with
accessory tantalum-niobates. Geokhimiya no.2:104-120 '60.
(MIRA 13:6)
I. V.I. Vernadsky Institute of Geochemistry and Analytical Chemistry,
Academy of Sciences, U.S.S.R., Moscow.
(Columbates) (Granite)

SHEVALEYEVSKIY, I.D.; PAVLENKO, A.S.; VAYNSHTEYN, E. Ye.

Relation between the behavior of zirconium and hafnium and the
petrochemical characteristics of magmatic and alkaline-metasomatic
rocks. Geokhimiia no.3:222-230 '60. (MIRA 14:5)

1. V. I. Vernadskiy Institute of Geochemistry and Analytical
Chemistry, Academy of Sciences U.S.S.R., Moscow.

(Zirconium)

(Hafnium)

(Rocks, Igneous)

PAVLENKO, A. S.; TUGARINOV, A. I.; ALEKSANDROV, I. V.

"Geochemical features of alkalinermetasomatic phenomena"

Paper submitted at the International Geological Congress XXI Session-
1960 (Reports of Soviet Geologists) Problem No. 1, 15-24 Aug. 61

L 22594-00 EWT(d)/LWP(k)/EWP(1)

ACC NR: AP6012999

SOURCE CODE: UR/0105/65/000/006/0090/0090

AUTHOR: Alekseyenko, G. V.; Borisenko, N. I.; Voyevodin, I. D.; Drozdov, N. G.; Krayz, A. G.; Man'kin, E. A.; Mayorets, A. I.; Nekrasov, A. M.; Nayashkov, I. S.; Pavlenko, A. S.; Rokotyan, S. S.; Sobolev, A. A.; Syromyatnikov, I. A.; Sapozhnikov, A. V.; Sarkisov, M. A.; Chernichkin, I. S.; Chertin, A. M.

ORG: none

TITLE: S. I. Rabinovich (on the occasion of his 60th birthday)

SOURCE: Elektrichestvo, no. 6, 1965, 90

TOPIC TAGS: electric engineering personnel, electric transformer, hydroelectric power plant

ABSTRACT: The chief specialist of transformer building of the Gosplan (State Planning Commission) USSR, Sarnil Isaakovich Rabinovich was born in 1905 in the town of Borisoglebsk of the Voronezh Oblast'. From his student years at the Gosudarstvennyy elektromashinostroitel'nyy institut (State Machine-Building Institute) he already showed interest for power transformers. In the early thirties he designed the first types of domestic Soviet 110 and 220 kV transformers; in 1939 he became the chief designer of the Moskovskiy transformatornyy zavod (Moscow Transformer factory). In 1946, he conducted the design and construction of lightning-resistant transformers; during 1949-1954,

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UDC: 621.314(092)

2 22594-66

ACC NR: AP6012999

he headed the design of the 400 kV transformer equipment for the Volzhskaya hydroelectric power station - Moscow power line; his subsequent work on the 500 kV equipment earned him the Lenin prize. From 1960, he has been working at the Gosplan USSR. He is also a member of the editorial board of the journal *Elektrichestvo* (Electricity). Orig. art. has: 1 figure. [JPRS]

SUB CODE: 10, 09 / SUBM DATE: none

Card 2/2 *ba*

ALEKSEYENKO, G.V.; BORISENKO, N.I.; VOYEVODIN, I.D.; DROZDOV, N.G.; KRAYZ, A.G.;
MAN'KIN, E.A.; MAYORETS, A.I.; NEKRASOV, A.M.; NAYASHKOV, I.S.; PAVLENKO,
A.S.; ROKOTYAN, S.S.; SOBOLEV, A.A.; SYROMYATNIKOV, I.A.; SAPCZHNIKOV,
A.V.; SARKISOV, M.A.; CHERNICHKIN, D.S.; CHERTIN, A.M.

Samuil Isaakovich Rabinovich, 1905; on his 60th birthday. Elektri-
chestvo no.6:90 Je '65. (MIRA 18:7)

PAVLENKO, A.S.; ORLOVA, L.P.; AKHMANOVA, M.V.

Cerphosphorhuttonite, a mineral from the monazite group. Trudy Min.muz.
no.16:166-174 '65. (MIRA 18:8)

PAVLENKO, A.S.; ONICVA, I.P.; AKHMANOVA, M.V.; TOBELKO, K.I.

Thorbastnaesite, thorium fluorocarbonate. Zap. Vses. min. ot-va 74
no.1:105-113 '69.

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo
AN SSSR, Moskva.

A.S. PAVLENKO (USSR)

"Behaviour of the rock-forming and some ore elements in the processes of alkaline rock formation."

Report presented at the Conference on Chemistry of the Earth's Crust,
Moscow, 14-19 Mar 63.

ZYKOV, S.I.; STUPNIKOVA, N.I.; PAVLENKO, A.S.; TUGARINOV, A.I.; ORLOVA, L.P.

Absolute age of intrusions in the eastern Tuva region and the Yenisey Range. *Geokhimiia* no.7:547-560 '61. (MIRA 14:6)

I. V.I.Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., and Chair of Geochemistry M.V.Lomonosov State University, Moscow.
(Sangilen range—Rocks, Igneous) (Yenisey Ridge—Rocks, Igneous)
(Geological time)

VAYNSHTEYN, E.Ye.; PAVLENKO, A.S.; TURANSKAYA, N.V.; YULOVA, T.G.

Effect of the distribution of rare earth elements in rocks on petrochemical factors and its significance for the solution of petrogenetic problems. Geokhimiia no.12:1077-1086 '61.

(MIRA 15:3)

1. Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow.
(Rare earth metals) (Petrology)

PAVLENKO, A.S.

Third scientific V.I.Vernadskii lecture. Geokhimiia no.6:538
'61.

(MIRA 14:6)

(Mineralogy)

TUGARINOV, Aleksey Ivanovich; PAVLENKO, Aleksey Stefanovich;
ALEKSANDROV, Igor' Vasil'yevich; SHCHEBIBINA, V.V.,
otv. red.; IVANOV, I.P., red. izd-va; POLYAKOV, T.V.,
tekhn. red.

[Geochemistry of alkaline metasomatism] Geokhimiia shche-
lochnogo metasomatoza. Moskva, Izd-vo Akad. nauk SSSR,
1963. 201 p. (MIRA 16:7)
(Metasomatism) (Geochemistry)

PAVLENKO, A.S.

At the map of the U.S.S.R. in 1980. Tekh. mol. 29 no.12:1-~~4~~
'61. (MIRA 15:1)

1. Chlen kollegii Gosudarstvennogo nauchno-ekonomicheskogo
soveta Soveta Ministrov SSSR.
(Electrification)

PAVLENKO, A. S.

Subject : USSR/Engineering AID P - 1240
Card 1/1 Pub. 110-a - 1/17
Author : Pavlenko, A. S., Minister of Electric Stations
Title : The tasks of power engineers for 1955
Periodical : Teploenergetika, 1, 3-6, Ja 1955
Abstract : The author makes a survey of the progress in power supply and construction in 1954, gives figures of production and consumption, and states the program for 1955.
Institution : None
Submitted : No date

PAVLENKO, A. S.

AID P - 2546

Subject : USSR/Electricity
Card 1/1 Pub. 26 - 30/32
Author : Pavlenko, A. S., et. al.
Title : ~~Vasiliy Andreyevich Zakharov~~
Vasiliy Andreyevich Zakharov (Obituary)
Periodical : Elek sta, 6, 58, Je 1955
Abstract : The article signed by a score of names reports on the
death of the manager of the Leningrad Power System.
One photo.
Institution : None
Submitted : No date

Pavlenko, A. S.

Subject : USSR/Electricity AID P - 3017
Card 1/1 Pub. 27 - 4/33
Author : Pavlenko, A. S., Vice-Minister of Electric Power
Stations of the USSR
Title : 75 years of the journal Elektrichestvo and the develop-
ment of electrification in the USSR
Periodical : Elektrichestvo, 7, 17-20, J1 1955
Abstract : The author emphasizes the role of this journal during
its 75 years of existence and in particular after the
October Revolution, in the development of electrification
in the USSR. He gives some data concerning technical
achievements in this field.
Institution : None
Submitted : Je 15, 1955

AID P - 3785

Subject : USSR/Electricity
Card 1/1 Pub. 26 - 27/29
Authors : Pavlenko, A. S., and several other names
Title : ~~USSR/Electricity~~ Sergey Tsalikovich Fayerman (deceased)
Periodical : Elek. sta., 10, 62, 0 1955
Abstract : The deceased was the vice-chairman of the Technical Council of the Ministry of Electric Power Stations and Dotsent of the Moscow Power Engineering Institute. The authors give a short description of his activities. One photograph.
Institution : None
Submitted : No date

PAVLENKO, A. S.

(G.Z.E., June 1956, vol. 9, 264-275). The trend of generation in the U.S.S.R. since 1913 is outlined; improvements in thermal power plants are described. Since 1953, 150 MW turbo turbines have been in operation and hydroelectric turbines for 105 MW have been built. The construction of heating stations is being expanded; more than 160 such stations are in operation, saving five million tons of coal. By 1960 generation will reach 320,000 million units and 200 MW and 300 MW turbines will be in use. Nuclear power plant has been successfully operated for two years. C.E.A.

PERVUSHIN, M.G.; LOGINOV, F.G.; ZHIMMERIN, D.G.; PAVLENKO, A.S.;
KULEV, I.A.; DONCHENKO, V.I.; DROBYSHEV, A.I.; DMITRIYEV, I.I.;
YERMAKOV, V.S.; SOSNIN, L.A.; PODUSHKIN, A.S.; SMIRNOV, M.S.;
TARASOV, N.Ya.; NIKOL'SKIY, G.P.; KRYLOV, N.A.; KOGTEV, G.I.;
AGHKASOV, D.I.; VESELOV, N.D.; CHIZHOV, D.G.; UGORETS, I.I.;
NIKIPOROV, F.N.; PLATONOV, N.A.

Vladimir Nikolaevich Sergeev; obituary. Elek. sta. 27 no.3:63 Mr
'56. (MLRA 9:8)

(Sergeev, Vladimir Nikolaevich, 1903-1956)

MALENKOV, G.M.; PERVUKHIN, M.G.; KUCHKRENKO, V.A.; ZHIMMERIN, D.G.; LOGINOV,
P.G.; PAVLENKO, A.S.; YERMAKOV, V.S.; VINTER, A.V.; DMITRIYEV, I.I.;
UGORETS, I.I.; BEKHTIN, N.V.; VOZNESENSKIY, A.N.; VASILENKO, P.I.;
BOROVOY, A.A.; NOSOV, R.P.; KRISTOV, V.S.; BELYAKOV, A.A.; RUSSO,
G.A.; VASIL'YEV, A.F.; REPIN, V.P.; TERMAN, I.A.; ORLOV, G.M.;
CHUMACHENKO, N.A.; BESCHINSKIY, A.A.; YAROSH, V.F.

Pavel Pavlovich Laupman; obituary. Gidr. stroi. 26 no.5:62 My '57.
(Laupman, Pavel Pavlovich, 1887-1957) (MIRA 10:6)

PAVLENKO, A.S.

PAVLENKO, A.S.

Lenin's ideas on electrification come to life. Elek.sta. 28
no.11:2-4 N '57. (MIRA 10:11)

1. Ministr elektrostantsiy. (Electrification)

Pavlenko, A. S.

98-1-1/20

AUTHOR: Pavlenko, A.S., Minister of Electric Power Stations of the USSR

TITLE: Further Development of Power Engineering in the USSR and Projected Constructions of Hydroelectric Power Plants (Dal'-neysheye razvitiye energetiki SSSR i perspektivy gidroener-gostroitel'stva)

PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo, 1958, # 1, pp 1-7 (USSR)

ABSTRACT: The tremendous growth of USSR industrial production is tied up with the development of electrical resources. The output of electric energy increased from 1.9 billion kwh in 1913 to 209.5 billion kwh in 1957. The established capacity of hydroelectric power plants in 1957 amounted to 9,840,000 kw, where-by the output reached 39.3 billion kwh or 18.7% of the total electric power generated in the USSR. This increase was possible by putting into operation the Kuybyshev Power Plant, which in 1957 reached the rated capacity of 2,100,000 kw, and is capable of operating with an overload of 20%. The future annual output will amount to 11 billion kwh, which will supply the Urals, the Volga and the Central Economic regions.

The following hydroelectric power plants were recently put into operation: the Gor'kiy Plant with a capacity of 400,000 kw, the Kakhovka Plant with a capacity of 312,000 kw, the

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Ust'-Kamenogorsk, the Kayrakkum and other plants. Construction of the Irkutsk (660,000 kw), the Novosibirsk (400,000 kw) and other plants is nearing completion. Construction of several high-capacity plants was started, such as the Bratsk on the Angara river with a capacity of 3,600,000 kw, Krasnoyarsk on the Yenisey river with a capacity of 4000,000 kw, the Bukhtarminsk and others. The Kuybyshev Hydroelectric Power Plant employs less than 500 workers, whereas a thermal power plant with the same output would require, including the mining and transportation of coal, more than 30,000 workers.

The author publishes a table showing USSR production figures for iron ore, coal, crude oil, pig iron, steel, electric power, etc. for 1957, for the period covered by 15 years, the percentage of increase up to 1957, and the comparative figures for 1956 in the USA.

In order to meet the USSR power requirements for the year 1972, an output of 900 billion kwh with a capacity of 180 million kw, i.e. an increase of 132 million kw as compared to 1957 has to be obtained. During the period 1959-1965, a united

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power grid of the European part of the USSR will be completed. The total capacity of the electric power plants in 1965 is to exceed 50 million kw. United power grids will also be established for western Siberia with a capacity of 8 million kw, and for eastern Siberia with a capacity of 12 million kw. The linking up of the various grids will permit the large thermal power plants (with capacities of 1.2 to 2 million kw) to be equipped with generator units of 150,000 - 200,000 kw, and in some instances with units of 300,000 kw and more.

To reduce the operational costs of thermal power plants, the greater use of natural gas is planned, especially in the Central Economic Region, the Volga Region and in other districts dependent on shipments of hard coal. Plans call for an increase in the consumption of natural gas from 3.3% in 1956 to 22% by 1972. It has been found that natural gas can be piped economically over distances exceeding 1,000 km. The percentage of generated hydroelectric power will be increased from 15% in 1956 to 24% by 1972. During the next

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10 - 15 years the main construction work of hydroelectric power plants will be shifted eastward. Besides the hydroelectric power plants at Bratsk and Krasnoyarsk, construction of the Yenisey Hydroelectric Power Plant with a capacity of 6 million kw, the Ust'-Ilim Plant with a capacity exceeding 3 million kw, and the Sayansk Hydroelectric Power Plant with a capacity of 3.5 million kw is intended. The extraordinary low cost of electric power in the Angara-Yenisey district (1 kwh 0.5 - 0.8 Kopecks) offer very favorable conditions for the production of aluminum, magnesium, titanium, electric furnace steel and other products.

Construction of the following hydroelectric power plants are planned in eastern districts: Shul'binsk on the Irtysh river, Kamensk on the Ob' river, Zeysk on the Zeya river, Charvaksk on the Chirchik river, Kapchagaysk on the Ili river, V.-Naryn on the Naryn river and others.

In the European part of the USSR, hydroelectric power resources will be developed at Saratov on the Kamsk-Volga cascade by 1965 and by 1970 at Cheboksary and Nizhne-Kamsk.

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