

ALEMAYKIN, F.M.

Category : USSR/Solid State Physics - Morphology of Crystals. Crystallization E-7

Abs Jour : Fiz Zhur - Fizika, No 2, 1957 No 3930

Author : Alemykin, F.M.

Title : Effect of Extraneous Impurities on the Growth of Ammonium Diphosphate Crystals

Orig Pub : Izvestiya Akademiya Nauk SSSR, 1955, vip. 6, ch. 2, 130

Abstract : No abstract

Card : 2/1

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30637  
S/081/61/000/020/013/089  
B144/B101

AUTHORS: Alekseykin, F. M., Zaytseva, V. I.

TITLE: Electrooptical properties of the ammonium dihydrogen phosphate crystal

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 36, abstract  
208259 (Uch. zap. Mordovsk. un-t, no. 8, 1960, 179 - 181)

TEXT: A semi-quantitative study was made of the phenomenon of the effect of mechanical and electrical factors on the refractive index of the ammonium dihydrogen phosphate crystal. A value of  $14.3 \cdot 10^{-7}$  cm/kv was obtained for the electrooptical constant. [Abstracter's note: Complete translation.] X

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"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000101010019-8

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000101010019-8"

30948. АЛЕШИКОВА, SH. M.

Tsentr pechani i matochnoe krovotечение, V. sb: Voprosy ostroy  
vnutrenney kliniki. M., 1949, s. 314-17

ALEKSEKOVA, Sh.M.

Histological changes in the vessels of the ganglia of the  
sympathetic nervous system in hypertension. Trudy Inst. im.  
N.V. Sklif. 5 no.2:69-77 '62. (MIRA 18:6)

*ALLENINA, A.T.*

VYDENSKIY, P.I.; ALLENINA, M.P.; TESLENKO, P.P.; AKHTYRCHENKO, A.M.;  
ISHCHENKO, O.W.

Economics of the removal of hydrogen sulfide from coke-oven. Koks  
i khim. no.3:46-49 '58. (MIRA 11:3)

1. Khar'kovskiy inzhenerno-ekonomicheskii institut (for Vvedenskiy,  
Allenina, Teslenko). 2. Ukrainskiy uglekhimicheskii institut (for  
Akhtyrchenko, Ishchenko).  
(Coke-oven gas) (Hydrogen sulfide)

ALENA, Frantisek, ins.

Nomograph for determining pipe drain dimensions. Vodni hosp 13  
no.1428-29 '63.

1. Vyskumny ustav melioraci, Bratislava.

AIENA, Frantisek, ins.

Logarithmic slide rule for pipe drainage calculation. Vodni  
hosp 13 no.3:111 '63.

1. Vyskumny ustav melioraci, Bratislava.



ALPHA, 7. 1. 1. 1.

Determining the depth and interspace of the tape ...  
no. 14 no. 212 of cover, 5 of cover ...

VASIL'YEV, M.V., doktor tekhn.nauk; POPOV, V.Ye., gornyy inzhener; ALENICHEV,  
V.M., gornyy inzhener

Using new tractor and scraper equipment in working ore deposits.  
Gor. zhur. no.3:20-26 Mr '63. (MIRA 16:4)

1. Institut gornogo dela Ural'skogo filiala AN SSSR, Sverdlovsk.

SOV/112-58-2-2278

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 2, p 78 (USSR)

AUTHOR: Alekchikov, D. A.

TITLE: The Use of Power Saturation Choke Coils for an Adjustable-Speed Induction-Motor Drive (Primeneniye silovykh drossелей nasyscheniya dlya reguliruyemogo elektroprivoda s asinkhronnym elektrodvigatelem)

PERIODICAL: V sb.: Raboty M-va elektrotekhn. prom-sti SSSR po mekhaniz. i avtomatiz. nar. kh-vu. Z.M., 1956, pp 155-158

ABSTRACT: Constructions are described of a speed-regulation system for an induction motor developed by the Central Design Bureau of the "Elektroprivod" Trust. The system comprises an induction motor, saturation choke coils inserted in stator and rotor circuits, and a speed-regulating system intended to secure the necessary mechanical characteristics of the drive under driving and braking (at a supersynchronous speed) conditions, under dynamic braking conditions, and under plugging conditions. The drive is intended for machines operating most of the time at a near-rated speed and requiring a reduced

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SOY/112-58-2-2278

The Use of Power Saturation Choke Coils for an Adjustable-Speed Induction-Motor . .

speed for short periods only. The drive advantages are: simplicity of construction, reliability, accurate maintaining of reduced speed, compactness. Low energy performance at reduced speeds is a disadvantage of the drive. A non-contact follow-up electric drive system using a type TAG-21-4 induction motor with a Schenfer solid rotor has been developed for operation in an explosion-hazardous medium. A description is presented of an automatic electric drive for screwing and unscrewing bore-hole piping; the drive consists of a Type AOS-73-4, 28-kw induction motor and a Type UM-65/581 3-phase saturation choke. The system assures reduced motor torque when the screwing begins, thus preventing damage to threads. A similar drive has been used and has successfully passed industrial tests as a main drive of a multiroll rotary press at the "Pravda" printing plant. A description and a simplified circuit diagram of the main drive of one roll of the newspaper rotary press are presented. The motor stator voltage is adjusted by 6 single-phase power saturation chokes. Resistors are connected in the rotor circuit, the values of which

Card 2/3

SOY/112-58-2-2278

The Use of Power Saturation Choke Coils for an Adjustable-Speed Induction-Motor . .  
are adjusted automatically depending on the voltage of a tachometer generator, this arrangement preventing torque bumps. The control windings of the saturation chokes are supplied from the third stage of an intermediary magnetic amplifier. A negative velocity feedback is applied to the input of the third stage. The input of the first stage is supplied from a master potentiometer through a resistive-capacitive circuit, which assures the smooth rise of the master signal; such a system secures a desirable acceleration values when the unit is started to attain a predetermined speed. A table of the technical data on saturation chokes that are intended for the regulation of induction motors is presented.

Ya. B. R.

Card 3/3

*Alenok, D. A.*

• 8(2) 26(1) PAGES 1 BOOK EXPLANATION 507(113)

Sovetskaya po avtomaticheskuyu elektropriyemovennuyu  
tenu, Moscow, 1955

Trud... (Transmissions of the Conference on Automatic A-C  
Electric Drives) Moscow, 1955. 360 p.  
1,000 copies printed.

Sponsoring Agency: Akademika nauk SSSR. Institut avtomatiki i  
telemekhaniki.

Red. Kuz. V. A. Kuchukhin, Academician, and N. N. Gulyaev,  
Doctor of Technical Sciences, Professor; M. I. P. Kuz'min,  
Doctor of Technical Sciences, Professor; M. I. P. Kuz'min.

Summary: The conference was organized on the initiative of  
the Academy of Sciences of the USSR and the Ministry of  
Higher Education and Science of the USSR. The first  
stage of developing automatic control of electric drives  
first conference on the subject of automatic electric drive  
last place were than ten years before the present one and  
conferenced with 4-5 electric drives. The results of this  
building power Soviet industry and the results of the  
development. Present technical development of Soviet industry  
demands high speeds, simplicity of construction, reliability  
with friction, and economy. The acquired-stage induction motor  
is the Soviet economy there is a need of developing new types  
of frequency converters. Some interesting studies were made  
mechanical of the USSR. The results of the studies were made  
branch, at the Moscow Power Engineering Institute and its Leningrad  
Design Bureau of the "Elektroprivod" Plant, the State Design  
Institute of the Ministry of Construction of the USSR, and  
at the design organizations. These studies were discussed  
concerning the theory of the induction motor, pulse, and  
frequency methods of controlling the induction motor.  
Candidates of Technical Sciences I. V. Ustin and Engineer V. A.  
Kuz'min participated in the preparation of this collection  
of papers. The volume was reviewed by Professor Ya. V. Rytsev,  
Doctor of Technical Sciences. Some of the papers include a  
bibliography.

TABLE OF CONTENTS:

Alenok, D. A., Engineer. Designing and Adjusting a Motor Electric Drive With Induction Motors	260
Some papers on the theory of electric drives for continuous and maximum speed electric drives for continuous regulation. The author describes the automatic speed regulation of such electric drives in Soviet paper and cotton industries. He refers to the system by N. V. Martynov introduced by the Tashkent Laboratory of the "Elektro- privod" trust ("Electrodrive" Trust) in 1953.	
Ustin, I. V., Engineer. The results of the studies of the production of standard type of electric drives to enable the Soviet industry to utilize the successful results of these experimental works. No references are given.	

Текст работы отпечатан на бумаге по артикуляционной прописи (соединяя)  
предлоги и подлежащие) с артикуляционным слитным звуком и прописью.  
мет. 34, Москва, 1979

Elaborated & orientative programme (noted); truly remarkable (Koslov's) and attention in industrial systems. Transitions of the Com-  
Parsons) Moscow, (Soviet Union), 1940, 470 p., 11,000 copies printed.

General Mgr.: J. J. Power, A.A. Stevens, and H.A. Gilliam; Mgr.: J.J. Job, and E.P. Miller; Tech. Mgr.: E.P. Forness, and C.O. Larimer.

purpose. The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

[illegible][illegible]

Eligibility: D.T., Certificate of Technician's Skilltest. Permanent Central  
Division of Inventory D-C Drive

[illegible]

**Mississippi Valley Institute of Technology, Present State and Prospects  
of the Development of Electronically Controlled Electric Drives** 164

CHILDS, N.G., and D.P. NARVER, Pattern of Technical Sciences, and L.M. NORDIS, Statistics of Technical Sciences. Pilsa Institution of D-C

**Motor Speed**

Sherrington, G.J., and F.H. Lubbock. *Present, Condition of "Orbital" Science*, 110

and J.C. Brinkman and T.F. Popper, Engineers. Electronic Frequency Converters  
for Supplying AC to Induction Motors

Narvov, B. I., and M. S. Galkin, Professors, Doctors of Technical Sciences, and M. A. Lyubimov, Candidate of Technical Sciences, Pulse Control and Regulation of Electric Machine Excitation by Means of Electronic Converters

**Subalar, P. L., Engineer. Tube Converter-Inverter With a Wide Range of Sustaining Frequency Regulation**

**Availability, Sales Engineers. Contact Semiconductor Converter for Gas-Tube Controlled Drive**

MITCHELL, J. H., Engineer, Frequency Control of a Klystron

Seleznev, M.M., Doctor, Candidate of Technical Sciences, V.N. Ternovskiy.

132

**Candidates of Technical Sciences, and A.V. Shadrinsky, Engineer. Field of Application of Induction Electric Drives With Adjustable Resistors**

Sperry, John August. Adjustable Electric Drive With Regenerative Amplifiers. 1960

**Drive With Accelerator Control**

項目	単位	数値
1. 総人口	人	1,234,567
2. 男性人口	人	612,345
3. 女性人口	人	622,222
4. 総世帯数	世帯	234,567
5. 男性世帯数	世帯	112,345
6. 女性世帯数	世帯	122,222
7. 総労働人口	人	567,890
8. 男性労働人口	人	289,012
9. 女性労働人口	人	278,878
10. 総消費額	円	123,456,789
11. 男性消費額	円	61,234,567
12. 女性消費額	円	62,222,222
13. 総貯蓄額	円	98,765,432
14. 男性貯蓄額	円	49,382,716
15. 女性貯蓄額	円	49,382,716
16. 総所得	円	87,654,321
17. 男性所得	円	43,827,160
18. 女性所得	円	43,827,161
19. 総資産	円	76,543,210
20. 男性資産	円	38,271,605
21. 女性資産	円	38,271,605
22. 総負債	円	65,432,109
23. 男性負債	円	32,716,054
24. 女性負債	円	32,716,055
25. 総純資産	円	11,111,111
26. 男性純資産	円	5,555,555
27. 女性純資産	円	5,555,556
28. 総人口密度	人/平方キロメートル	123.45
29. 男性人口密度	人/平方キロメートル	61.23
30. 女性人口密度	人/平方キロメートル	62.22
31. 総労働人口密度	人/平方キロメートル	56.78
32. 男性労働人口密度	人/平方キロメートル	28.90
33. 女性労働人口密度	人/平方キロメートル	27.88
34. 総消費額密度	円/平方キロメートル	12,345.67
35. 男性消費額密度	円/平方キロメートル	6,123.45
36. 女性消費額密度	円/平方キロメートル	6,222.22
37. 総貯蓄額密度	円/平方キロメートル	9,876.54
38. 男性貯蓄額密度	円/平方キロメートル	4,938.27
39. 女性貯蓄額密度	円/平方キロメートル	4,938.27
40. 総所得密度	円/平方キロメートル	8,765.43
41. 男性所得密度	円/平方キロメートル	4,382.71
42. 女性所得密度	円/平方キロメートル	4,382.72
43. 総資産密度	円/平方キロメートル	7,654.32
44. 男性資産密度	円/平方キロメートル	3,827.16
45. 女性資産密度	円/平方キロメートル	3,827.16
46. 総負債密度	円/平方キロメートル	6,543.21
47. 男性負債密度	円/平方キロメートル	3,271.60
48. 女性負債密度	円/平方キロメートル	3,271.61
49. 総純資産密度	円/平方キロメートル	1,111.11
50. 男性純資産密度	円/平方キロメートル	555.55
51. 女性純資産密度	円/平方キロメートル	555.56

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**APPROVED FOR RELEASE: 09/24/2001**

**CIA-RDP86-00513R000101010019-8"**

9.2530

88174

S/110/60/000/012/004/004  
EO41/E421

AUTHOR ~~Alexander A. D. A.~~, Engineer

TITLE The Series UM-3P (UM-3P) of Basic Three-Phase  
Magnetic Amplifiers

PERIODICAL. Vestnik elektromyashennosti. 1960, No 12, pp. 57-62

TEXT These new amplifiers which are designed for use at 50 c/s effect a saving of copper per unit power of more than three times. When connected up so as to give a d.c. output, the five types in the series have the characteristics given in table given below. The feedback rectifiers are chosen on the basis of one third of the nominal load current. The bridge rectifiers are chosen on the basis of 0.9 of the supply voltage. It is possible to use germanium or silicon rectifiers in these circuits but they must be chosen so as to have inverse voltage very close to the supply voltage. It is also necessary to provide current overload protection. The variation of the output voltage of the rectifiers with load current, for various values of constant current in the control winding, is given. An example is given of the calculation of a load characteristic using one of these amplifiers. A comparison is made of the calculated and experimental load

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88174

S/110/60/000/012/004/004  
R041/E421

The Series YM-3П (UM-3P) of Basic Three-Phase Magnetic Amplifiers characteristics for amplifiers type YM-3П15 30 Д11 (UM-3P15 30D11) and YM-3П20 40 Д11 (UM-3P20 40 D11). The mechanical characteristic of a motor type П-32 (P-32) delivering 4.5 kW at 3000 rpm when controlled by a magnetic amplifier YM-3П25 62 Д11 (UM-3P25 62 D11) is also plotted. A dimensionless characteristic enables a load characteristic to be calculated for the case of a three-phase alternating current load. There are 6 figures, 1 table and 7 Soviet references.

SUBMITTED April 27, 1960

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88174

S/110/60/000/012/004/004  
E041/E421

The Series UM-3Π (UM-3P) of Basic Three-Phase Magnetic Amplifiers

Amplifier Type	Line-Line Supply Voltage V	Nominal Amplifier Data			
		Load <sup>mm</sup> Current A	Control Current A	Bias Current A	Continuous Rating of Control and Bias Windings A
UM-3P15 30 D11	127	5 65	0.32	0 16	0.34
UM-3P20 40 D11	220	9 6	0.56	0 28	0.42
UM-3P25 62 D11	220	20	0.49	0 25	0.51
UM-3P32 64 D11	220	46	0.62	0 31	0.68
UM-3P40 80 D11	220	100	0.62	0.31	0.93

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<sup>mm</sup> with natural cooling

88174

S/110/60/000/012/004/004  
EO41/E421

The Series YM-30 (UM-3P) of Basic Three-Phase Magnetic Amplifiers

Table (continued)

Amplifier Type	Maximum Control Winding Resistance (ohms)	Weight	Rectified Load Power <sup>a</sup> kW
UM-3P15 30 D11	20	16	0 65
UM-3P20 40 D11	12	33	2 0
UM-3P25 62 D11	17	70	4 2
UM-3P32 64 D11	17	130	9 7
UM-3P40 80 D11	18	240	21

<sup>a</sup> with selenium rectifier bridge

Card 4/4

ALENGHIKOV, D.A., inzh.; MARCHENKO, N.L., inzh.

The UHF-series magnetic amplifiers and B0-type blocks. Vest.  
elektrom. 33 no.11:79-80 N '62. (MIRA 15:11)  
(Magnetic amplifiers)

ALENCHIKOV, D.A., inzh.; BESPALOV, V.Ya., inzh.; KOPYLOV, I.P.,  
kand. tekhn. nauk; NIKITIN, Yu.A., inzh.

Series of motor-amplifiers. Elektrotehnika 35 no.6:19-24  
Je '64. (MIRA 17:8)

1. 24. 66. 001(1)/001(1) 18  
 ACC NO: 128007259 SOURCE CODE: UR/0363/66/002/002/0357/0362  
 AUTHOR: Poropov, N.A.; Zhukauskas, R.-S.M.; Aleynikov, P.K. 33  
 ORG: Institute for Chemistry and Chemical Technology AN LitSSR B  
 (Institut khimii i khimicheskoy tekhnologii AN LitSSR)  
 TITLE: The structural transformations of synthetic cordierite 15  
 SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 2, 1966, 357-362  
 TOPIC TAGS: cordierite, crystal structure, silicate  
 ABSTRACT: The test samples were of cordierite synthesized from glass in a heat treatment of from 0.5 to 120 hours, at temperatures from 1100 to 1460°C. The heat treatment was done in a Silit furnace in platinum crucibles, with subsequent air cooling. Glasses of three composition were investigated: a stoichiometric cordierite composition, a composition with 10 weight % more silicon dioxide, and a composition with 10 weight % less silicon dioxide. X-ray investigations were carried out on a URS-501 unit. Results are shown in graphic and tabular form. As the result of prolonged heat treatment at 1400°C a lower rhombic form was obtained from the higher hexagonal cordierite. On raising the temperature up to 1460°C, the reverse transition was  
 Card 1/2 UDC:548.19

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APC007259

ACC NR obtained with ordering of the structure of the cordierite. The process of transition from the high to the lower cordierite was observed electronmicroscopically. It was established that the polymorphous transition with formation of rhombic cordierite is accompanied by partial amorphisation of the crystal structure which proceeds at a high rate in a narrow temperature interval. The rhombic modification of cordierite is stable in the temperature range up to 1440°C. Orig. art. has: 4 figures and 2 tables.

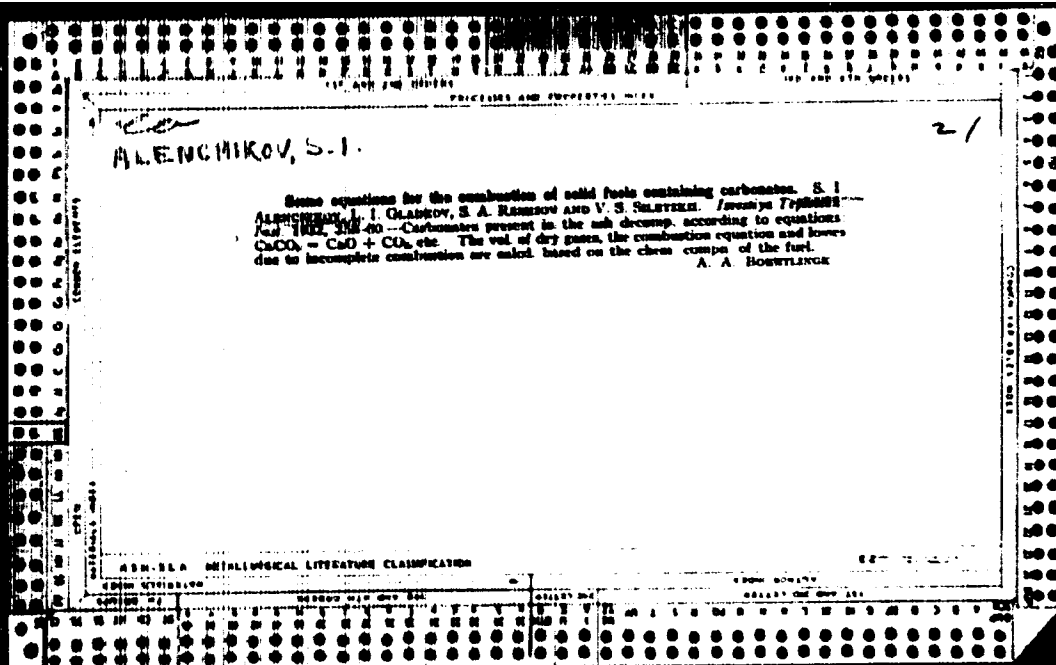
SUB CODE: 07,11/ SUBM DATE: 29Jun65/ ORIG REF: 008/ OTH REF: 005

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ALECHNIKOV, I.P.; ZAYTSEVA, L.L.; LIPIS, L.V.; NIKOLAYEV, N.S.;  
TOMIN, V.V.; CHREBOTAIEV, N.T.

Properties of complex plutonyl fluorides. Zhur. neorg. khim.  
6 no.7:1513-1519 J1 '61. (MIRA 14:7)  
(Plutonyl fluoride)





ALENCHIKOV, S. I.

Subject : USSR/Engineering AID - P-76  
Card : 1/1  
Authors : Alenchikov, S. I., Eng., and Evzerova, F. K., Eng. Moscow  
Title : Quality of Steam for Uniflow Separating Boilers  
Periodical : Izv. V.T.I., v. 21, #3, 17-18, Mr 1952  
Abstract : Different methods of washing salt from steam in conventional and uniflow boilers are discussed. The salt concentration in water during evaporation is expressed with differential equations. 2 charts.  
Institution : Moscow Inst. of Power Engineering im. Molotov (MEI),  
Bureau of Uniflow Boiler Construction  
Submitted : October 5, 1951

ACCESSION NR: AP4042555

S/0056/64/046/006/1979/1984

AUTHORS: Alekseyevskiy, N. Ye.; Karstens, G. E.; Mozhayev, V. V.

TITLE: Investigation of galvanomagnetic properties of Pd

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 1979-1984

TOPIC TAGS: palladium, galvanomagnetic property, Fermi surface, transition metal, low temperature research

ABSTRACT: In view of the lack of sufficiently detailed data on the Fermi surfaces of transition metals, the authors investigated the galvanomagnetic properties of single-crystal samples of Pd, whose purity was represented by  $\rho(T = 300K)/\rho(T = 4.2K) = 1500-2100$ . The measurements were made on chemically purified palladium at 4.2K. The angular dependences of the resistance and of the Hall emf were normally investigated in fields up to 26 kOe, although some samples were measured in a field of 36 kOe. It has been established that

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ACCESSION NR: AP4042555

palladium has an open Fermi surface, and the experimental results are consistent with a surface constituting a "three-dimensional grid of corrugated cylinders," with the cylinder axes along the fourfold axes of the reciprocal lattice. The average constant diameter of these cylinders is approximately  $(0.25 \pm 0.03) b$ , where  $b$  is the palladium reciprocal lattice period in the [100] direction:  $b = 2(2\pi/a)$ ,  $a = 3.88 \text{ \AA}$ . It is concluded that the open surface of palladium represents holes.

ASSOCIATION: Institut fizicheskikh problem Akademii nauk SSSR  
(Institute of Physics Problems, Academy of Sciences SSSR)

SUBMITTED: 30Dec63

DATE ACQ:

ENCL: 02

SUB CODE: SS, NP

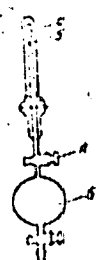
NR REF SOV: 007

OTHER: 000

Cord 2/4

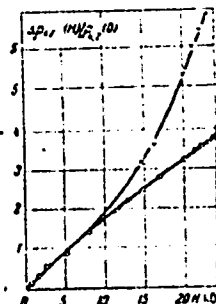
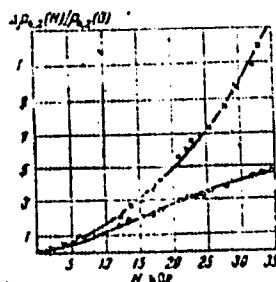
ACCESSION NR: AP4042555

ENCLOSURE: 01



Ampoule  
for melting  
A - petcock

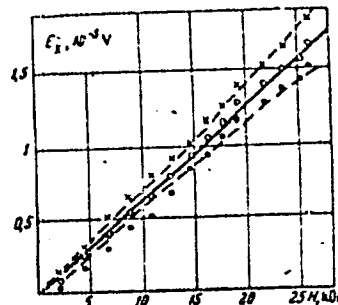
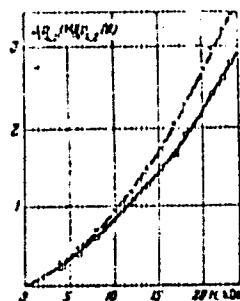
Cord 3/4



Variation of resistance in magnetic field for  
samples Pd-9 (left) and Pd-51 (right)

ACCESSION NR: A74042555

ENCLOSURE: 02



Dependence of resistivity (Pd-10 sample, left) and Hall emf (right, sample Pd-9) on the magnetic field

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CIA-RDP86-00513R000101010019-8

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000101010019-8"

ALEXSEYEVSKIY, N. Ye. Moscow

"Galvanomagnetische Eigenschaften von Metallen in starken Magnetfeldern."

report submitted for 2nd Intl Symp on Hyperpure Materials in Science and Technology, Dresden, GDR, 28 Sep-2 Oct 65.

Institut fizicheskikh problem AN SSSR, Moscow.

1 3304-66 RPT(a)/RPT(e)/RPT(h) IJP(e) JD/JG  
 ACCESSION NR: AP5016282 UR/0386/65/001/005/0051/0036  
 AUTHORS: Alekseyevskiy, N. Ye.; Yagorov, V. S.  
 TITLE: Investigation of the galvanomagnetic properties of transition metals in strong magnetic fields  
 SOURCE: Zhurnal eksperimental'noy i tekhnicheskoy fiziki. Pis'ma v redaktsiyu, Prilozheniye, v. 1, no. 5, 1965, 31-36  
 TOPIC TAGS: magnetoresistance, vanadium, titanium, tungsten, chromium, galvanomagnetic effect  
 ABSTRACT: The authors present the results of measurements of the galvanomagnetic properties of W, V, Ti, and Cr, carried out in large effective magnetic fields. The measurements were made with apparatus described earlier (ZhETF v. 45, 1118, 1963), on single crystals several millimeters long with transverse dimensions approximately 0.5--0.3 mm. The use of the apparatus has made it possible to make measurements on transition metals in which the ratio of the resistance at room temperature to the resistance at liquid helium temperature was relatively

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L 3394-66

ACCESSION NR: AP5016282

2

small (130 -- 175). In spite of this low ratio, the maximum values of the effective fields were quite high, amounting to  $\sim 2 \times 10^7$ . The results are illustrated in Figs. 1 and 2 of the Enclosure. When analyzed from the point of view of modern ideas concerning the behavior of electrons in metals, the results indicate that vanadium and titanium have closed Fermi surfaces and chromium has an open Fermi surface. Tungsten, also has a closed surface, but its magnetoresistance change is large, whereas for Ti and V the change is small. Orig. art. has: 2 figures.

ASSOCIATION: Institut fizicheskikh problem im. S. I. Vavilova  
Akademii nauk SSSR (Institute of Physics Problems AN SSSR)

SUBMITTED: 25 Apr 65

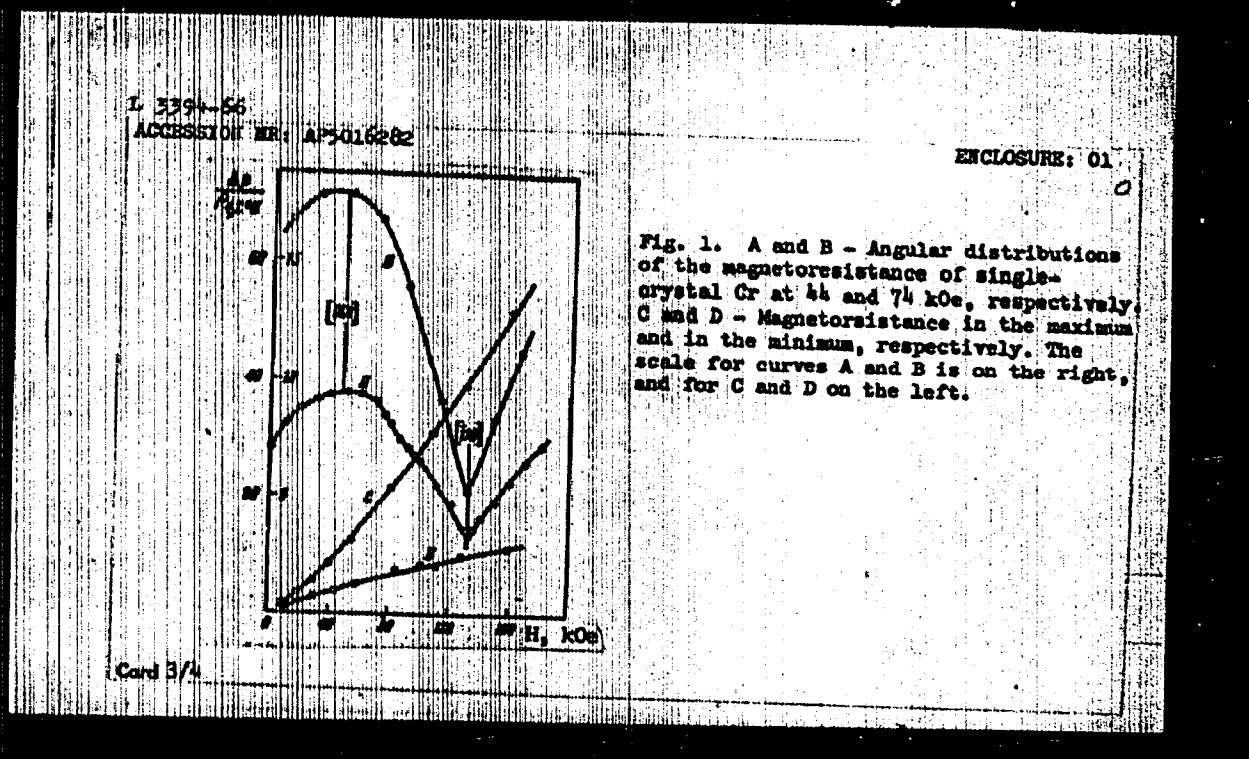
ENCL: 02

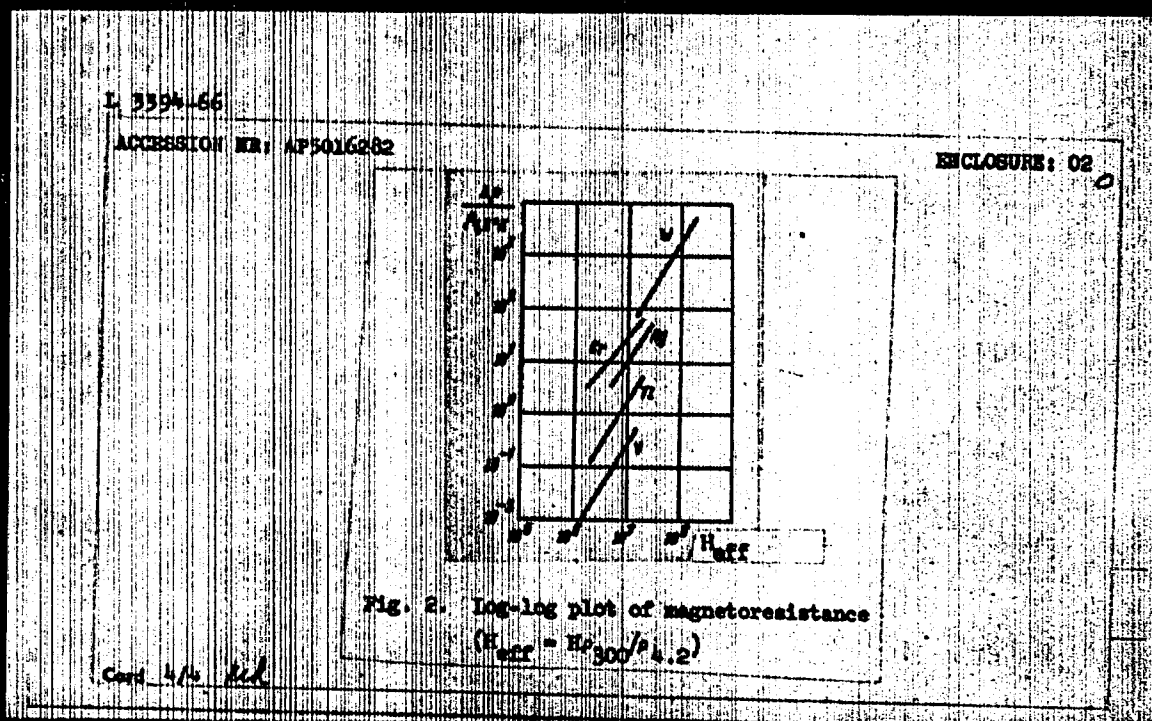
SUB CODE: EM, MM

NR REF SOV: 001

OTHER: 002

Card 2/4





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APPROVED FOR RELEASE: 09/24/2001

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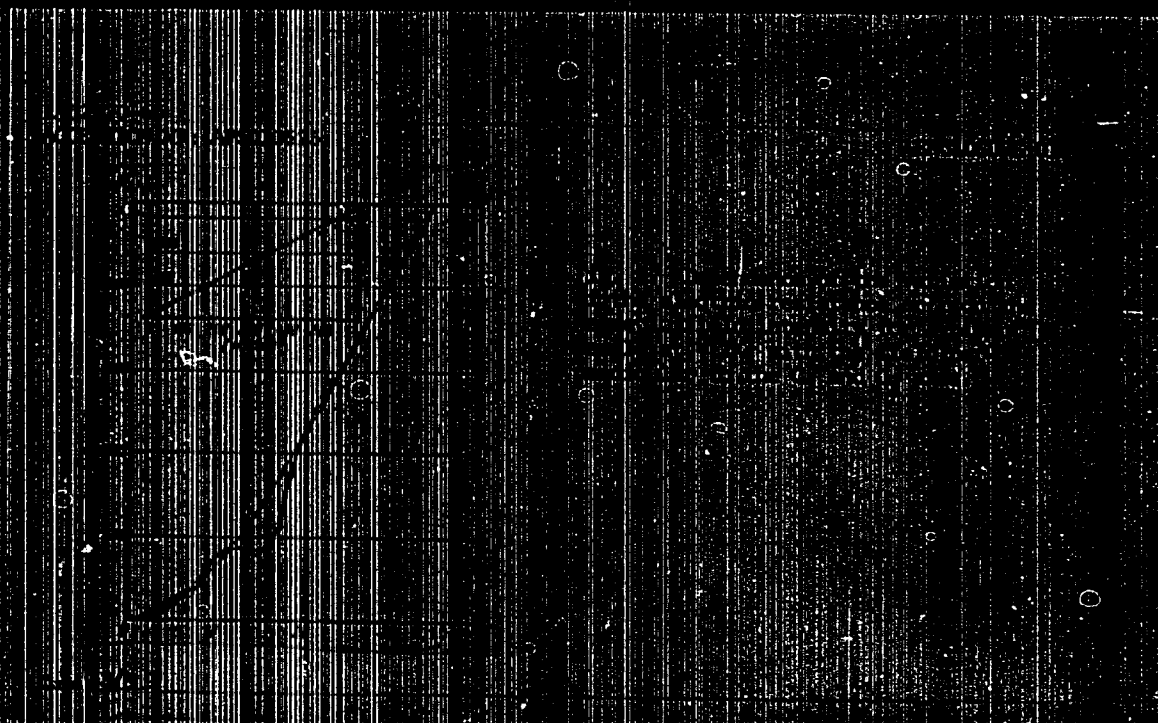


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CIA-RDP86-00513R000101010019-8

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000101010019-8"

L 2298-66 ENT(1) IJH(c) 00

ACCESSION NR: AP019226

UR/0056/65/049/001/0159/0162

AUTHOR: Alekseyevskiy, N. Ye. 47  
41  
B

TITLE: Superconductivity in the Ag-Ga system

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 1, 1965, 159-162

TOPIC TAGS: silver alloy, gallium containing alloy, superconductivity, critical magnetic field, magnetic moment

ABSTRACT: This is claimed to be the first investigation of the superconducting properties of alloys of gallium and silver. Samples of the alloys were prepared from pure Ag and Ga, for which the change in resistance from room temperature to 4.2K ( $R_{300K}/R_{4.2K}$ ) was ~1000 for Ag and ~10,000 for Ga. The Ga content ranged from 5 to 95 at.%. Measurements of the magnetic moments showed that alloys containing 20 to 70 at.% Ga and annealed at 220--2700 had superconductor-like dependences of the magnetic moment on the external field (with a maximum at 35 at.% Ga). Alloys outside the stated range had no superconductivity. The critical temperature estimated from the plot of the critical field against the temperature was 6--8K. A direct determination of the critical temperature, by measuring the resistance in the

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L 2298-66

ACCESSION NR: AF0019220

intermediate range of temperatures, was also undertaken, but the results were inconclusive. Alloys with an admixture of a third component, and other n-type compounds. Such as  $Ag_3In$ ,  $AgSi_2$ , and  $Cu_3Ga$  were also tested, but none exhibited superconductivity. Ternary alloys, in which 10 at. % Ga was replaced with  $In$ ,  $Zn$ , or  $Sn$ , exhibited no variation in the critical temperature, with the exception of the  $tin$  alloy, for which a sharp reduction in the critical temperature (to 4.2K) took place. The possible causes of the superconductivity of Ag-Ga systems are discussed, with preference given to the hypothesis that the superconductivity is due to finely dispersed  $\beta$ -Ga. (Orig. art. has 4 figures.)

ASSOCIATION: Institutefinicheskikh problem Akademii nauk SSSR (Institute of Physics Problems, Academy of Sciences SSSR).

SUBMITTED: 23Feb65

ENCL: 00

SUB CODE: CP, SS

NO REF SOV: 001

OTHER: 004

Card 2/2 DP

1 3056-66	INT(1)	INT(6)	00
ACCESSION NR: AP5021274		UR/0020/65/163/005/1121/1123	
AUTHOR: Alakseyevskiy, M. Ya.; Dubrovina, A. V.; Yegorov, V. S.			
TITLE: Pulse methods of investigating the superconducting properties of alloys			
SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1963, 1121-1123			
TOPIC TAGS: superconductivity, superconducting alloy, magnetic field measurement			
<p>ABSTRACT: Two pulse methods for measuring the critical magnetic field intensity of superconducting alloy wires are described. The first is designed for measurements at comparatively small current densities (<math>10^4</math> amp/cm<sup>2</sup>). An external magnetic field of 150 koe is created in a solenoid (ID 0.5 cm) by means of a discharge of a bank of capacitance (800 <math>\mu</math>f, 300 v); buildup time to maximum current is 4 msec. The winding of the solenoid is pure Al wire 0.3 mm in diameter, with <math>\rho_{4.2K} = 300</math> and resistance at liquid helium temperature of <math>2.5 \times 10^{-2}</math> ohm. A voltage proportional to the current in</p> <p>Card 1/3</p>			

L 3056-66

ACCESSION NR: AP5021274

the coil, and consequently to the magnetic field, is passed to the horizontal plate of an oscilloscope, and simultaneous scanning of the magnetic field is effected. A given deviation of the beam from the horizontal corresponds to a given field intensity. The instant of disruption of superconductivity of the sample is registered by the appearance of a resistance between the potential electrodes of the sample. To record the resistance, a d-c measuring current (several dozen milliamperes, 35 kc) is passed through the sample. The signal from the potential electrodes and a signal compensating the measuring current are fed in series to a tuned amplifier. When the critical field intensity is reached, the resistance appears, the compensating signal is blocked out, and a curve of the transition to the normal state appears on the scope. The second method is designed for higher current densities in a stationary field. A short current pulse growing linearly with time is passed through the sample, and a two-beam oscilloscope registers curves of current intensity and voltage at the potential outputs of the sample. Buildup time of the voltage pulses is adjustable from 1  $\mu$ sec to 1 min. Pulses from the generator pass to the feed circuit of the sample from the output of a three-stage transistorized amplifier (gain,  $10^3$ ), and a voltage

Cont. 2/3

1 3056-66

ACCESSION NO: AP5021274

3

proportional to the current intensity is fed to one input of the scope. The voltage from the potential outputs of the sample are fed to the second input. At the instant of disruption of superconductivity a voltage pulse appears on the scope. The position of this pulse relative to the current-intensity pulse determines the current intensity of the sample. The two pulse devices can be mated by substituting a current pulse from the generator for the d-c measuring current. This pulse is fed to one input of the scope, while the second input handles the unbalanced signal registering the appearance of the resistance. The horizontal sweep is affected by a voltage proportional to the magnetic field. Orig. art. has 2 figures. [PW]

ASSOCIATION: Institut fizicheskikh problem im. S. I. Vavilova  
Akademii nauk SSSR (Institute of Physical Problems, Academy of Sciences,  
SSSR)

SUBMITTED: 15Jan65

ENCL: 00

SUB CODE: EC

NO REF. COV: 001

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ATD PRESS: 1106

Card 373



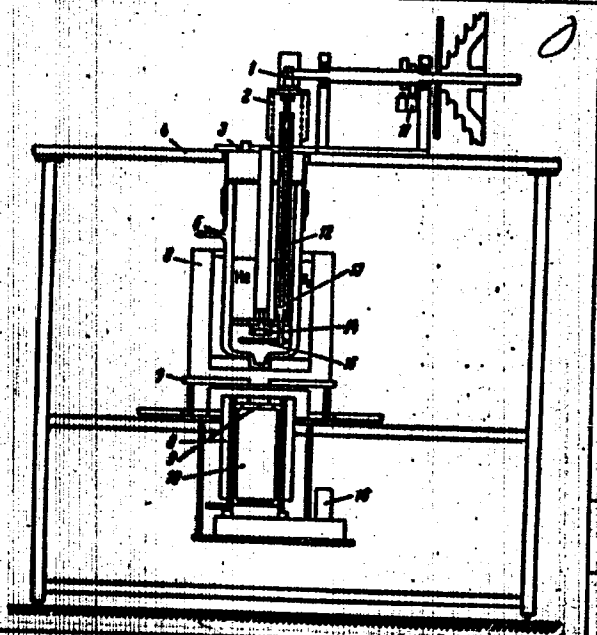
9293-86	INT(1)/INT(2)/INT(3)/INT(4)/INT(5)	IJP(c)	JD/WM/GG
ACC NR: AF0026405	SOURCE CODE: UR/0386/65/002/006/0.69/0274		
AUTHOR: Alekseyevskiy, E. Ye.; Kir'yanov, A. P.; Mishankovskiy, V. I.; Samarskiy, Ye. A.			
ORG: Institute of Physics Problems, Academy of Sciences SSSR (Institut fizicheskikh problem Akademii nauk SSSR)			
TITLE: Anisotropy of the Mossbauer effect in <u>single crystals of tin</u> at low temperatures			
SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 6, 1965, 269-274			
TOPIC TAGS: Mossbauer effect, tin, single crystal, resonance absorption, temperature dependence			
<p>ABSTRACT: The authors report the results of measurements of resonant absorption of recoilless 23.8-keV <math>\gamma</math> rays produced by the decay of <math>\text{Sn}^{119\text{m}}</math> in single crystals of tin, in the temperature interval 4.2--200K. The measurements were made with a setup in which the absorber was caused to move at constant speed relative to the source, using a specially shaped eccentric (Fig. 1). The <math>\gamma</math>-ray source was an <math>\text{SnO}_2</math> compound ~30 mg/cm<sup>2</sup> thick; the collimator diameter was 7 mm. The x-radiation was applied through a filter of palladium foil 60 <math>\mu</math> thick. During measurements the source was always kept at <math>\leq 7^\circ\text{K}</math>. The absorbers were plates with orientations [001] and [100] cut from single-crystal tin enriched with <math>\text{Sn}^{120}</math> and containing 1.7% <math>\text{Sn}^{119}</math>. The apparatus and</p>			
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L 9293-66

ACC NR: AP5028405

Fig. 1. Over-all view of the installation.

1 - Eccentric cam, 2 - bellows, 3 - cap, 4 - mounting stand, 5 - helium Dewar, 6 - container for liquid nitrogen, 7 - lead screen, 8 - thermostat, 9 - NaI(Tl) crystal, 10 - PMU-13 photomultiplier, 11 - commutator, 12 - stem, 13 - stuffing box, 14 - radiation source, 15 - absorber, 16 - high-voltage supply.



L 9293-66

ACC NR: AP5026405

procedure are described briefly. Typical resonance absorption curves and the temperature dependence of the amplitude of the maximum absorption are presented. The experimental data were reduced by a procedure described earlier (G. A. Bykov and Phan Duy Hien, *ZhETF* v. 45, 909, 1962). By using large statistics, a stronger source, better instrumental geometry, and single-crystal samples, the authors were able to establish the presence of anisotropy of the Mossbauer effect at 4.2K. The magnitude of the anisotropy was found to be  $(1.08 \pm 0.02)$ , and to go through an inversion in the region  $T = (40 \pm 5)K$ . The temperature dependence of the Mossbauer-effect anisotropy can probably be attributed to an overlap of the optical and acoustical branches of the phonon spectrum of tin. Orig. art. has: 3 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 20Jul65/ ORIG REF: 003/ OTH REF: 002

BC

Card 3/3

L 36155-00 EAT(1)/EAT(1)/T/EMP(t)/ETI LEP(c) 03/13

ACC NR: AF6018798 SOURCE CODE: UR/0056/66/050/005/1202/1204

AUTHOR: Alekseyevskiy, N. Ye.; Karstens, G. E.; Mozhayev, V. V.

ORG: Institute of Problems in Physics, AN SSSR (Institut fizicheskikh problem AN SSSR)

TITLE: Investigation of the galvanomagnetic properties of hydrogenized palladium single crystals

SOURCE: Zh eksper i teor fiz, v. 50, no. 5, 1967, 1202-1204

TOPIC TAGS: hydrogen doped palladium, crystal anisotropy, electromotive force, Hall constant, Fermi surface

ABSTRACT: The galvanomagnetic properties and Hall electromotive force have been studied in high-purity hydrogenized palladium single crystals with  $\rho(T=300K)/\rho(T=4.2K) \sim 3000$  for hydrogen concentrations between 0 and 20 at %. Within these limits, the nature of the resistance anisotropy did not vary. The resistance anisotropy in

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L 36458-66

ACC NR: AP6018798

effective fields remained constant, and the Hall constant for small hydrogen concentrations (0--3 at %) did not change. On the basis of the data obtained, it can be concluded that a small hydrogen concentration no change develops in the open regions of the Fermi surface. Orig. art. has: 3 figures. [Based on authors' abstract] [NT]

SUB CODE: 20/ SUBM DATE: 09Dec65/ ORIG REF: 002/ OTH REF: 001

Card

2/2 5/48

L 21807-65 EST(a)/SWP(t) NIAAP/LJP(c) JD/HW/JG  
DOC REF: APS-2185

SOURCE CODE: UR/0386/66/003/008/0318/0321

AUTHOR: Alekseyevskiy, E. Ye.; Anisimov, V. N.; Yezinkyan, A. L.; Parfenova, V. P.; Shchegolev, V. S.

ORG: Scientific Research Institute of Nuclear Physics of Moscow State University im. M. V. Lomonosov (Nauchno-Issledovatel'skiy Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Effective magnetic field at the  $\text{Co}^{60}$  nucleus in the  $\text{CoPd}$  alloy

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 5, no. 8, 1966, 318-320

TOPIC TAGS: cobalt alloy, palladium containing alloy, Mossbauer effect, magnetic field measurement

ABSTRACT: In view of the fact that Mossbauer-effect measurements of the effective field  $H_{\text{eff}}$  give unambiguous results only if  $\text{Fe}^{57}$  is used, the authors measured  $H_{\text{eff}}$  at the  $\text{Co}^{60}$  nucleus in an alloy of 0.3 at.-% Co with Pd, by determining the anisotropy of the  $\gamma$  radiation of oriented  $\text{Co}^{60}$  nuclei. The use of radioactive  $\text{Co}^{60}$  has made it possible to carry out the measurements at rather low Co concentrations. The procedure used was similar to that described earlier (ZhETF v. 46, 493, 1964). The cooling agent was a block of potassium chrome alum. The investigated

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L 21807-66  
AOC NR: A76012185

sample, constituting a disc 5 mm in diameter and 0.2 mm thick, was soldered to the end of the cold finger, which was pressed into the salt. The intensity of 1.33- and 1.17-MeV  $\gamma$  quanta from Co was measured at angles  $0^\circ$  and  $90^\circ$  to the external orienting field ( $H_{ext} = 5.7$  koe). The measurements have shown that thermal equilibrium is established between the cooling salt and the sample at  $T \sim 0.05K$ , and the values of  $H_{eff}$  obtained in both cases agree with the published data. The effective field at the  $Co^{60}$  nucleus in the CoPd alloy was measured under the same conditions (the same salt and the same cold finger), and a value  $H_{eff} = (2.6 \pm 0.2) \times 10^3$  oe was obtained. This value of  $H_{eff}$  exceeds the field in the metallic Co ( $H_{eff} = 2.150 \times 10^3$  oe). The result shows that the Co ion behaves somewhat differently than the Fe ion when alloyed with Pd, where the field at the  $Fe^{57}$  nucleus is lower at smaller concentrations of Fe than in pure Fe. The large value of  $H_{eff}$  is apparently connected with the large local moment at the impurity ferromagnetic Co atom. On the other hand, the increase of  $H_{eff}$  at the Co nucleus in the investigated alloy can be due to the change in the contribution of the spin density due to the conduction s-electrons, compared with metallic cobalt. The dependence of  $H_{eff}$  on the Co concentration is now under investigation.

SUB CODE: 20/ SUBJ DATE: 25/6/66/ ORIG REF: 001/ OTH REF: 006

Cont 2/2

L 02451-67 BMT(1) IJP(c) WW

ACC NR: AP6008080

SOURCE CODE: UR/0020/66/166/005/1088/1090

AUTHOR: Alekseyevskiy, N. Ye.; Dubrovin, A. V.; Koretskiy, G. A. 34  
B

ORG: Institute of Physical Problems, Academy of Sciences, SSSR (Institut fizicheskikh problem Akademii nauk SSSR)

TITLE: A small high-resolution mass spectrometer with a variable magnetic field for light gas analysis

SOURCE: AN SSSR. Doklady, v. 166, no. 5, 1966, 1088-1090

TOPIC TAGS: miniature mass spectrometer, gas analysis

ABSTRACT: The feature of this spectrometer is that the ion source and collector and the magnet are inside the vacuum chamber which is a direct extension of the high vacuum diffusion pump. The resolution of the instrument, based on the half-peak width, is 7200. A diagram of the spectrometer is shown in figure 1; dimensions are in mm. Results of a test with  $\text{H}_2\text{H}^+ - \text{HD}^+ - ^3\text{He}^+$  are discussed. Presented by Academician P. L. Kapitov on 16 June 1965. Orig. art. has: 2 figures.

UDC: 621.384.8

Cord 1/2



L 02451-67

ACC NR: AP6008080

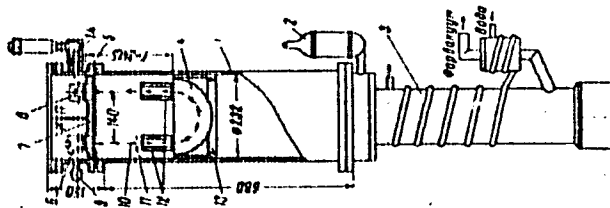


Fig. 1. 1--shell; 2--high-vacuum trap; 3--diffusion pump; 4--magnet pole; 5--upper chamber; 6--ion source; 7--steel plate; 8--collector; 9--ion source electrodes; 10--ion trajectory; 11--aperture diaphragm; 12--magnet screens; 13--supporting ring; 14--output amplifier.

SUB CODE: 18,07/

SUBM DATE: 15Jun65/

ORIG REF: 005

Card 2/2 *gd*

ACC NR: AP6033852

SOURCE CODE: UR/0281/66/000/004/0003/0011

AUTHOR: Alekseyevskiy, N. Ye. (Moscow)

ORG: none

TITLE: Problems associated with the application of superconductivity. [Presented in Moscow at a general meeting of the Department of Physico-Technical Problems of Power Engineering on 4 February 1965].

SOURCE: AN SSSR. Izvestiya. Energetika i transport, no. 4, 1966, 3-11

TOPIC TAGS: superconductivity, superconducting alloy, cryogenic device

ABSTRACT: The theory of superconducting alloys, their application and the design of superconductor elements are presented. At present, superconducting wire is produced in the SSSR from ductile superconductors. An example is 65 BT wire which is made of an alloy containing 65% niobium and titanium. The wire is covered with a protective layer of copper and is insulated with polyester lacquer. The critical temperature is approximately 10°K while the critical field intensity at a temperature of 4.2°K is approximately 90 oersted. After special heat treatment, the wire has a critical current density of  $8 \cdot 10^4$  amp/cm<sup>2</sup> in the range of magnetic field intensity from 20 to 40 kilo-oersted and a temperature of 4.2°K. There is practically no degradation in this wire. 65 BT wire was used by the author to fabricate 10 laboratory solenoids which were suc-

UDC: 537.312.62

Card 1/2

AID P - 790

~~ALE~~CHNIKOV, S. I.

Subject : USSR/Engineering  
 Card 1/1 Pub. 28 - 5/5  
 Authors : Alenchikov, S. I., Grishin, F. N. and Kemel'man, M. N.  
 Title : Improving the quality of the evaporator distillate by the "BPK" film separator  
 Periodical : Energ. byul., #2, 31-33, P 1954  
 Abstract : This "film" separator for the purification of boiler feed water was designed by the Experimental Division of the Bureau of Uniflow Boiler Construction (BPK). The rotation of the wet steam admitted separates water particles and causes the formation of film on the wall of the separator. Construction and operation of the two-stage separator are described and supplemented with the test results. 2 drawings and one table.  
 Institution : None  
 Submitted : No date  
 Construction

*Recording 1*

Subject : USSR/Power Engineering AID P - 4378  
Card 1/1 Pub. 110 a - 4/17  
Authors : Alenchikov, S. I. and F. K. Yevzerova, Engs. Moscow  
Branch of the Central Scientific Research Institute  
for Boilers and Turbines and the All-Union Heat  
Engineering Institute.  
Title : Salt-concentrating device for testing of feed water  
and condensates.  
Periodical : Teploenergetika, 5, 22-24, My 1956  
Abstract : A new device for feed water concentration, and its  
design and operation are described. Reportedly this  
instrument makes possible a ten-fold concentration of  
liquid. One diagram, 3 tables.  
Institution : ~~None Known - Disputed - Central~~  
Submitted : No date

**"APPROVED FOR RELEASE: 09/24/2001**

**CIA-RDP86-00513R000101010019-8**

**APPROVED FOR RELEASE: 09/24/2001**

**CIA-RDP86-00513R000101010019-8"**

78-3-4-23/38

AUTHORS: ~~Alenchikova, I. E.~~, Zaytseva, L. L., Lipis, L. V.,  
Nikolayev, N. S., Pomin, V. V., Chebotarev, N. T.

TITLE: Investigation of the Physico-Chemical Properties of Plutonyl  
Fluoride (Izucheniye fiziko-khimicheskikh svoystv ftoristogo  
plutonila)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 4, pp. 951-955 (USSR)

ABSTRACT: The synthesis of plutonyl fluoride from hydrochloric acid  
solutions of plutonium-VI with liquid hydrofluoric acid  
was elaborated.  
The plutonyl fluoride produced by this synthesis was ana-  
lyzed as follows:  
a) by chemical analysis  
b) by determination of the state of valence of plutonium  
by means of the electron absorption spectrum  
c) by the determination of the composition based on the  
U. R. -absorption spectrum  
d) by X-ray structural analysis.

Card 1/2      The chemical analysis showed that plutonyl fluoride has the  
following formula:  $\text{PuO}_2\text{F}_2$ .

78-3-4-23/38

Investigation of the Physico-Chemical Properties of Plutonyl Fluoride

The electron and U.R. absorption spectra of plutonyl fluoride proved the presence of the  $\text{PuO}_2^{2+}$ -ion and the absence of the Pu-IV-ion.

The crystallization structure of plutonyl fluoride shows a rhombic lattice with the constants  $a = 5,797 \pm 0,005 \text{ \AA}$  and  $42^\circ \pm 3'$ .

The X-ray density of  $\text{PuO}_2\text{F}_2$  amounts to  $6,50 \text{ g/cm}^3$ . The solubility of plutonyl fluoride in water at  $20^\circ\text{C}$  amounts to  $1,07 \text{ g/l}$ . On the action of water on plutonyl fluoride a change of structure occurs. There are 5 figures, 2 tables, and 7 references.

SUBMITTED: October 20, 1957

Card 2/2

AUTHORS: Nikolayev, N.S., Alenchikova, I.F. 32-24-4-14/67

TITLE: The Determination of Water in Liquid Hydrogen Fluoride  
(Opredeleniye vody v zhidkoy fluoristoy vodorode)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 418-419 (USSR)

ABSTRACT: This method is based upon the already described determination of water in hydrogen fluoride by means of Fischer's reagent in pyridine, but in the present case, in contradiction to Cook and Findlater (Ref 3) as well as to Mitchel and Smit (Ref 2) this is carried out by way of potassium fluoride and not immediately from hydrogen fluoride. Also M.P. Gustyakova took part in these experiments. The ratio between potassium bifluoride and the hydrogen fluoride to be investigated was fixed at 8 : 1. The mixture of hydrogen fluoride and potassium bifluoride is mixed in pure methanol in Fischer's reagent and is re-titrated with a methanol with a certain quantity of water. The end of titration is electrometrically determined. Thus, three determinations carried out with one and the same sample investigated resulted

Card 1/2



The Determination of Water in Liquid  
Hydrogen Fluoride

32-24-4-14/67

in a water content of 0.95, 0.87 and 0.99%. The waterless methanol used was obtained by treatment with copper sulfate and metallic sodium and contained 0.05 - 0.1% water, whereas pyridine was dehydrated with calcium hydride and contained 0.1% water after distillation. The titer of Fischer's reagent usually amounted to 3-4 mg/ml. The moisture content of the sample investigated is calculated according to a given formula. The methods described make it possible to carry out examination with an error limit of  $\pm 5\%$  and a water content of up to 1%. There are 1 figure, 1 table, and 7 references, 3 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova  
AN SSSR (Institute for General and Inorganic Chemistry imeni  
N.S. Kurnakov AS USSR)

1. Water--Determination
2. Hydrogen fluoride (Liquid)--Analysis
3. Potassium fluoride---Chemical reactions

Card 2/2

### NOTES ON THE CONTRIBUTORS

1987/88

International Conference on the Peaceful Uses of Atomic Energy. 24, Geneva, 1958.

ИЗДАНИЕ с советским издательством. [1-2] Издание с советским издательством и издательством  
механически (Издательство Советского Союза). v. 2.1. Chemistry of Alloys  
Alloys and Radiation Transformations Moscow, Akademdat, 1959. 321 p.  
2,000 copies printed. (Series: The Study)

MS. (this page); A. V. Vinogradov, *Komunisticheskiy* No. 17, I. Lashinov) Nov. 21, 1960.

**PURPOSE:** This collection of articles is intended for scientists and engineers interested in the applications of radiometric methods in science and technology.

**REMARKS:** This book contains 30 separate studies concerning various aspects of the chemistry of crystals redox-active elements and the processes of redox-ionic effects on matter. These reports discuss present-day methods of researching inorganic subjects (e.g., research in the chemistry of mercury, boron, sodium, potassium, and cerium), previous studies on the synthesis and properties of

ing of radiometric method, the reliability of aqueous solutions and of organic compounds, the mechanism of polymer chain grafting, and the effect of radiation on natural and synthetic rubbers. V. E. Pleschauer edited the present volume. Part of the reports are accompanied by abstracts. Con- tributions to individual investigations are mentioned in abstracts to the Table of Contents.

— 4 —

Residence of: 2001 E. 14th St., S.E., Wash., D.C.  
Occupation: Student  
Education: University of Washington  
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Phone: 202-338-1234  
Signature: [Signature]  
Date: 10/10/10

Shriver, G. E., and V. E. Murray. Investigations on the Chemistry of  
Perchloric Acid (Report No. 217)

For the second section of this study, I consulted Dr. V. D. Hinkelstein, E. A. Sieracki, and S. S. Smith. Contributions to the Chemistry of Sedimentary Lithology (Report No. 213)

[illegible]

respectively, S. A., Z. A. Bereda, P. P. Zolotarev, and L. I. Maslov,  
Detection of Low-dose Gamma and Low-activity Waste Waters From

1. Shady, L. A., A. T. Antonio, Y. T. Bernick, P. V. Rogers, and  
others. How to Grow Tobacco. (Part 20. 2022)

newly Inert Contaminated With Radioactive Elements (Report No. 2039)  
Barry, V. G., and Ye. M. Kravt. On the Possibility ofburying Radioact.  
 194

asturnia, M. A., and Pa. M. Solovytla.  
Life-Community of Aquatic Insects (Report No. 2022)  
[The investigations were carried out at the Laboratory of Insects]

L. Ya. Karpyova  
Laboratory of Radiation Chemistry of the Physicochemical Institute  
Leningrad University, Leningrad, U.S.S.R.

part of  $\gamma$ -radiation were obtained from investigations made at the Laboratory of Cellulose Chemistry, Institute of Chemistry, Academy of Sciences of the USSR, and at the Laboratory of Cellulose Chemistry, Institute of Chemistry, Academy of Sciences of the USSR, and at the Laboratory of Cellulose Chemistry, Institute of Chemistry, Academy of Sciences of the USSR.

...the direction of Dr. H. Kohn...  
...the following are mentioned...  
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Shelton's, T. V. Swenberg, and M. J. Sweeney.]

Shelton's, T. V. Swenberg, and M. J. Sweeney.

(The following are mentioned: I. S. Edouard and Y. F. Thurler,

5(2), 21(1)

SOV/79-4-5-1/46

AUTHORS: Alenchikova, I. F., Zaytseva, I. L., Lipis, L. V.,  
Pomin, Y. V.

TITLE: Separation and Investigation of the Physico-chemical Properties  
of Plutonyl-chloride (Vydeleniye i izucheniye fiziko-khimiches-  
kikh svoystv khloristogo plutoniya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5, pp 961-962  
(USSR)

ABSTRACT: The synthesis of plutonyl chloride was carried out by the  
vacuum vaporization of a plutonyl chloride solution at room  
temperature. Plutonyl chloride was isolated in form of green-  
ish-yellow crystals of the composition  $\text{PuO}_2\text{Cl}_2 \cdot 6\text{H}_2\text{O}$ . By means  
of electrons and infrared absorption spectra of the plutonyl  
chloride crystals it was proved that this compound contains  
 $\text{PuO}_2^{2+}$ -ions and that no Pu(IV) is present. The spectra of the  
crystals were photographed by means of the spectrograph ISP-51  
(the camera had a focal length of 270 mm) within the range  
of 4200 - 9800 Å. After a longer storage of the plutonyl  
chloride preparation the infrared and electron adsorption

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SOV/78-4-5-1/46  
Separation and Investigation of the Physico-chemical Properties of Plutonyl-chloride

spectra undergo a considerable change. Absorption lines occur in such spectra which are characteristic of  $\text{Pu}^{4+}$ . Under the action of a  $\alpha$ -radiation a reduction of  $\text{Pu(VI)}$  into  $\text{Pu(IV)}$  takes place. The analysis values of plutonyl chloride are shown in a table and the absorption spectra of various solutions and of the obtained crystal of the plutonyl chloride are shown by figures 1 - 4. There are 4 figures, 1 table, and 2 references, 1 of which is Soviet.

SUBMITTED: April 7, 1958

Card 2/2

40705

S/005/01/006/007/002/014  
B'07/0217

21.4100

AUTHORS: Alexchikova, I. F., Zaytseva, L. L., Lypis, I. V.  
Nikolayev, L. S., Fomin, V. V., Cherotaren, A. T.

TITLE: Properties of plutonyl fluoride complexes

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 7, 1973, 1513-1519

TEXT: The object of the present study was the production and investigation of plutonyl fluoride complexes with alkali metals. The systems  $\text{PuO}_2\text{F}_2 - \text{MeF} - \text{H}_2\text{O}$  with  $\text{Me} = \text{Na}, \text{K}, \text{NH}_4, \text{Rb}, \text{Cs}$  were investigated in the range  $\text{Me}/\text{Pu} = 1$  to 50 by means of electron absorption spectra. The latter were recorded by means of the VSP-51 (ISP-51) spectrograph at the boiling temperature of liquid nitrogen. The compounds prepared were analyzed; Table 1 provides a list of the compounds produced as well as the analytical values. The compounds  $\text{MePuO}_2\text{F}_3 \cdot \text{H}_2\text{O}$  are isotopic and of cubic symmetry.

Fig. 2 shows schematically the powder diagrams, obtained in the P40-86 (R4U-86) camera with chromium radiation, for the following compounds (lattice constant in brackets):  $\text{KPuO}_2\text{F}_3 \cdot \text{H}_2\text{O}$  (8.126 Å),  $\text{RbPuO}_2\text{F}_3 \cdot \text{H}_2\text{O}$

Card 1/6

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S/CTA/61/006/107/002/014  
B\*07/22.7

Properties of plutonyl

(8.458 Å).  $\text{CsPuO}_2\text{F}_3 \cdot \text{H}_2\text{O}$  (8.916 Å). Furthermore, a series of isotopic compounds  $\text{M}_2\text{PuO}_2\text{F}_4$  exists; Fig. 3 shows the powder diagrams for  $\text{K}_2\text{PuO}_2\text{F}_4$  and  $(\text{NH}_4)_2\text{PuO}_2\text{F}_4$  in schematic form. The compound  $\text{Cs}(\text{PuO}_2)_2\text{F}_6 \cdot 3\text{H}_2\text{O}$  was also found; the radiogram is very rich in lines (Fig. 4) and indicates a low symmetry. The absorption spectra are characterized by the bands for  $\text{Pu}^{\text{VI}}$  between 8250 and 8350 Å, as well as between 6200 and 6600 Å. The stability of the compound  $\text{M}_2\text{PuO}_2\text{F}_3 \cdot \text{H}_2\text{O}$  was found to decrease on the transition from sodium to cesium. There are 11 figures, 4 tables, and 15 references: 2 Soviet-bloc and 13 non-Soviet-bloc. The reference to English-language publication reads as follows: H. H. Arlerson, Paper 6, 21 of the Transuranium Elements, 14B, New York, 1961.

SUBMITTED: May 30, 1960

Card 2/6

ALBENCHIKOVA, I.P.; LIPIS, L.V.; NIKOLAYEV, N.S.

Investigation of the system  $\text{PuO}_2\text{F}_2\text{--HF--H}_2\text{O}$  (isotherm  $20^\circ\text{C}$ ). Atom.  
energ. 10 no.6:592-596 Jo '61. (MIRA 14:6)  
(Plutonium compounds)

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000101010019-8

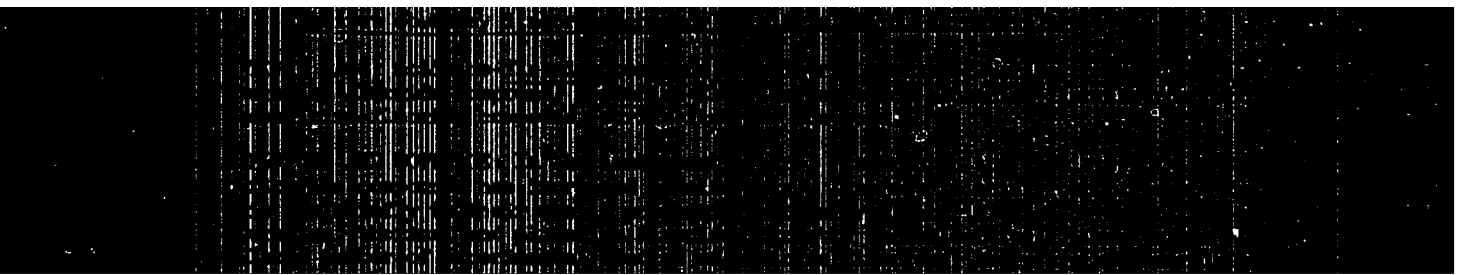
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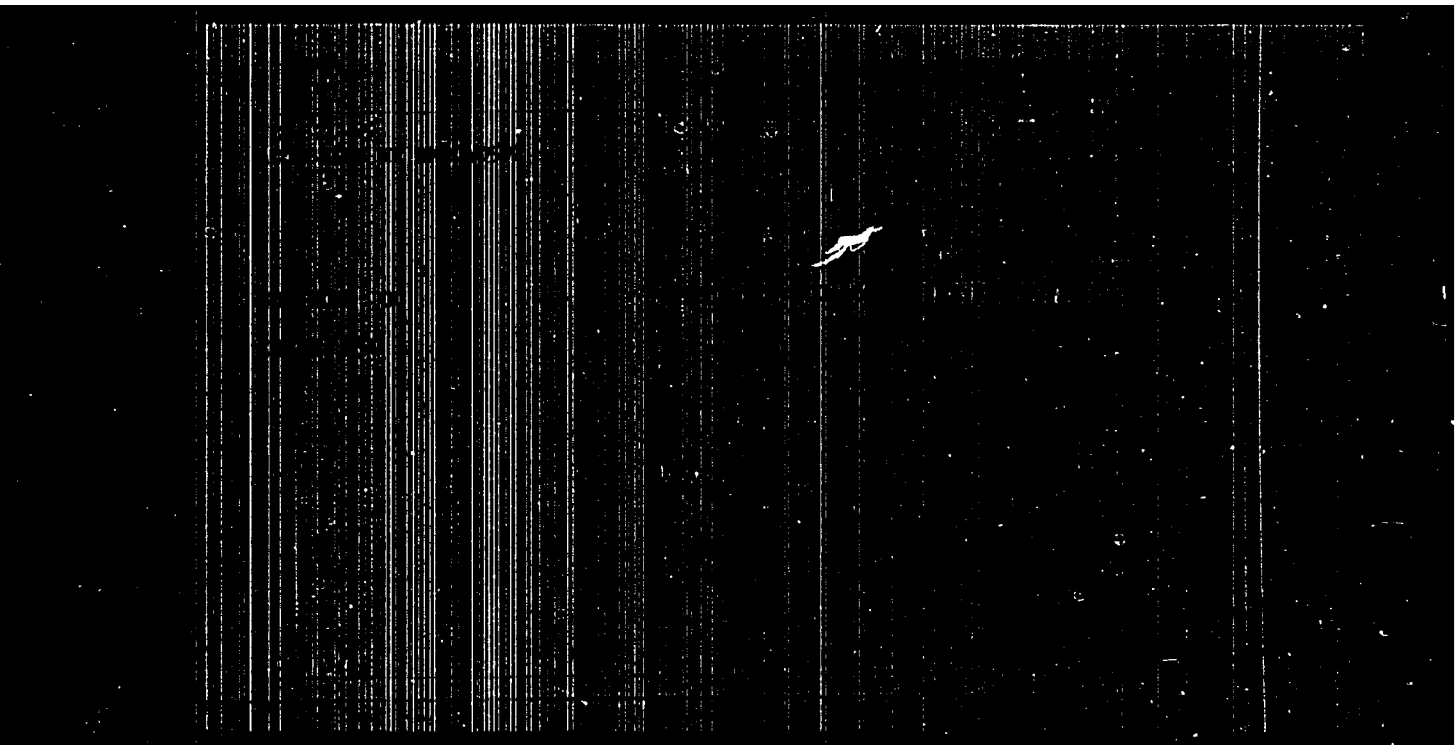
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CIA-RDP86-00513R000101010019-8"

ALLENPORT, V.O., insh.

Use of "breathing" type press for drying paperboard. Sum.prom.  
35 no.8:24 Ag '60. (MIRA 13:8)  
(Paperboard--Drying)

ALHNGOS, N.

Spot-welding equipment. IUn. tekhn. 2 no.5:62-65 My '58.

(MIRA 11:6)

1. Instruktor stantsii yunyk tekhnikov g. Zhdanova, Stalinskoy oblasti.  
(Electric welding)

ALLENDOE, I.A.

Bacterial flora in experimental peritonitis in dogs caused by  
perforation of the stomach and duodenum. Vrach. delo  
no.1:53-56 Ja '57 (MLBA 10:4)

1. Propedevticheskaya khirurgicheskaya klinika (sav.-prof. I.Ya.  
Deynaka ( i kafedra mikrobiologii (sav.-prof. S.M. Minervin)  
Odesskogo meditsinskogo instituta.  
(PERITONITIS) (ABDOMEN--BACTERIOLOGY)

*ALENGOR, I A*  
ALENGOR, I. A.

... of the ... and ... clinical and experimental ...  
... (MISA 12 9)  
... (prof. I. Ya. ...)  
... (prof. ...)  
(PHTHOLINE) (THYPTASTINE) (PHTHOLINE)



ALENGOZ, I. A., CAND MED SCI, "PERITONITIS IN PERFORATION OF GASTRIC AND DUODENAL ULCERS. (CLINICAL AND EXPERIMENTAL OBSERVATIONS)." STALINO, 1961. (MIN OF HEALTH UKSSR, STALIN STATE MED INST IN A. M. GOR'KIY). (KL, 3-61, 229).

HEENGER, A.G.

ROYZMAN, I.S.; PRETZER, R.L.; ALINOCZ, N.G.

On hydrocarbon metabolism in scleroma. Vest. otorinol. 13 no. 5:52-56 May-June 1951.  
(CML 20:11)

1. Of the Department of Biochemistry (Head--Docent I.S. Rozman)  
and of the Department of Diseases of the Ear, Throat, and Nose  
(Head--Prof. V.P. Yaroslavskiy), Vinnitsa Medical Institute.

ALENKOZ, M.G.

ALENKOZ, M.G., kand.med.nauk

Clinical radiography in laryngeal cancer. Vrach.delo no.10:1081-  
1083 0 '57. (MIRA 10:12)

1. Klinika bolesney ukha, gorla i nosa (sav. - prof. L.A.Zaritskiy)  
Odeskogo meditsinskogo instituta.  
(LARYNX--CANCER)

ALENGOZ, N.G.

Two cases of neurinoma of the pharynx. Zhur. ush. nos. i gorl.  
bol. 21 no.4:77-78 JI-Ag '61. (MIRA 15:1)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. L.A.Zaritskiy)  
Odeskogo meditsinskogo instituta imeni N.I.Pirogova.  
(NERVOUS SYSTEM\_TUMORS)

ALBUKOV, N.G., Kandid.med.nauk

Thiamine content in the blood of rhinoscleroma patients and changes in it due to the effect of streptomycin. Zhur. ush., nos.1 por. bol. 22.no.6:53-55 N-D'63. (MIRA 16:7)

1. Iz kliniki bolesney ukha, gorla i nosa (zav.-nasluzhennyy deyatel' nauki prof. L.A. Zaritskiy) Odesskogo meditsinskogo instituta imeni N.I. Pirogova.  
(RHINOSCLEROMA) (THIAMINE) (STREPTOMYCIN)

KOSENITSKIY, I.N., dotsent; KRICHKOVSKIY, G.F.; VERBITSKAYA, L.P.,  
dotsent; LISENKO, N.I.; BIRBRAYER, M.L.; ALENGOZ, H.G.;  
LOKHMATOV, D.P.; YAROSHCHUK, A.A.

State of health of workers in the graphite industry. Vrach.  
delo no.8:134 Ag'63. (MLA 16:9)

1. Odesskiy meditsinskiy institut.  
(NO SUBJECT HEADINGS)

*FILED IN YE 101*

KHASOVITSKIY, B.N., KHOTINSKAYA, Ye.Ye., OGDANETS, K.D., ALENICH, Ye.M.

Yellow pigments from aminophenylimides of naphthalic acid. Uch. zap.  
KHGU 71:253-254 '56. (MLRA 10:8)  
(Pigments) (Naphthalic acid)

VASIL'YEV, M. V., kand. tekhn. nauk; POPOV, V. M., inzh.;  
ALBNICHEV, V. M., inzh.

Development of the open method of mining manganese ores in the  
Northern Urals. Izv. vys. ucheb. zav.; gor. shur. 5 no. 8:12-17  
'62. (MIRA 15:10)

1. Institut gornogo dela Ural'skogo filiala AN SSSR. Rekomende-  
vana kafedroy otkrytykh gornykh rabot Sverdlovskogo gornogo  
instituta imeni Vakhrushева.

(Ural Mountains---Strip mining)



TALALAYEV, S.P.; ALENICHEV, V.P.

Mechanizing the collection, conveying and retreatment of metal-sheet waste. Avt.prom. 28 no.10:42-43 0 '62. (MIRA 15:9)

1. Moskovskiy avtomavod im. Likhacheva.  
(Scrap metals)

VOYEVODSKIY, Sergey Alekseyevich, inzh.; KHASKIN, Abram  
Mikhailovich, inzh.; KRASNITS, Zyama Yakovlevich, inzh.;  
ALENICHENKO, Ye. A., inzh., retsenzent; ZHAVORONKOVA, N.N.,  
inzh., retsenzent; KYUN, S.A., kand. tekhn. nauk,  
retsenzent; PUCHKO, N.F., inzh., retsenzent; UMANOV, I.I.,  
inzh., retsenzent; LEUTA, V.I., inzh., retsenzent

[Course in mechanical drawing for correspondence technical  
schools] Kurs chercheniya dlia vnochnykh tekhnikumov. Kiev,  
Tekhnika, Pt.2. 1965. 319 p. (MIRA 18:8)

1 ALENIKOV, N.A.	
Formation and Properties of Flotation Dispersed Systems. (In Russian) N. A. Alenikov. Zhurnal Prikladnoi Khimii (Journal of Applied Chemistry), v. 22, Aug. 1949, p. 812-822.	
Above were investigated in connection with flotation of coal. It was found that two types of mineralized froth may be formed. Film-structure and aggregated. Conditions of formation of each were determined. Special characteristics are indicated. Experimental data on flotation of a Russian coal in kerosene and in crude turpentine are tabulated and charted.	
455-555 METALLURGICAL LITERATURE CLASSIFICATION	

AUTHOR: Alenikov, S.K., Engineer

NOV-117-58-8-9/28

TITLE: A Chuck for the Boring of Ring Grooves in Openings (Patron  
dlya rastochki kol'tsevykh kanavok v otverstiyakh)

PERIODICAL: Mashinostroitel', 1958, Nr 9, p 28 (USSR)

ABSTRACT: A chuck with cutter has been developed for the boring of ring grooves in openings. The cutter is fitted on the chuck and the chuck is fastened to the spindle. As soon as the support ring touches the opening the spindle of the lathe is brought to the processed detail. A limiting device ensures the exact depth of the grooves. The boring of 2 grooves in steel takes 30 sec, in bronze 5 sec. The cutters are made from steel E18 or E1547. They may have 1 or 2 cutting edges. There are 2 diagrams.

1. Metals - Machining
2. Machine tools - Equipment
3. Lathes - Applications

Card 1/1

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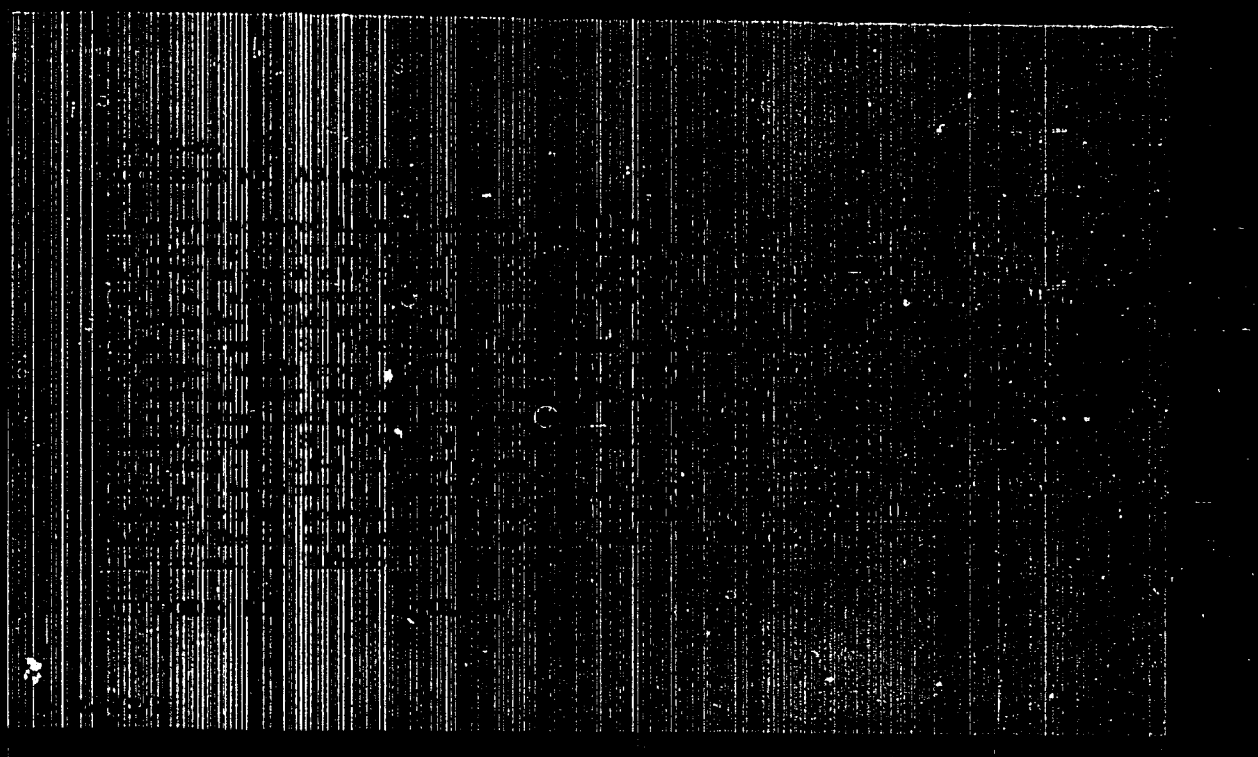
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APPROVED FOR RELEASE: 09/24/2001

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ALENIN, M.P.

Effect of heat treatment on the strength of blades of high-speed cutters  
for machining gears made of 45G171U3 steel. Trudy LPI no. 233:36-40 '64.  
(MIRA 17:10)

L 37224-66 EWP(k)/EWT(d)/EWT(m)/EWP(h)/T/EWP(l)/EWP(v)/EWP(t)/ETI IJF(c) DJ/JD

ACC NR: AP6018270

SOURCE CODE: UR/0121/66/000/002/0024/0028

AUTHOR: Alenin, M. P.

ORG: none

TITLE: Finish gear cutting from refractory steel blanks

SOURCE: Stanki 1 instrument, no. 2, 1966, 24-28

TOPIC TAGS: gear cutting machine, high temperature steel, milling machine, cutting tool, high speed steel

ABSTRACT: The author makes recommendations on the design of cutters for milling ~~gears~~ from refractory steel. End mills were used in studying stability. The end mill was mounted in a 5312 gear milling machine with continuous cutting speed adjustment. A honed slasher was used for the control test. Optimum steel grades were determined by testing sample cutters of R9, R18, R24, R9K5, R9K10, and R18F4K8M high-speed steels. It is shown that increasing rake improves cutter stability by reducing cutting stress. Curves are given showing stability of cutters made from various grades of high-speed steel at various cutting speeds. A formula is given for the relationship between stability and cutting speed. The effect of feed on stability is discussed and a formula is given for this relationship. Tests were conducted for studying the effect of marginal allowance on stability. It is shown that honed worm slashers should be used in

Cord 1/2

UDC: 621.914.5:669.14.018.44



L 37224-66

ACC NR: AP6018270

2

finish gear cutting from refractory steel. Their main advantage is that they can be produced with much larger relief angles than those of standard worm slashers. The best cutter material for honed millers is R18F4K8M high-speed steel, High-speed R9K10 steel is recommended for machining KhN35VTYu and R9P54Kh18N9T steel. Molybdenum disulfide plating does not affect cutter stability. Dividing the slashing operation for worm wheel blanks into rough and finish cuts reduces production losses by a factor of 2-3.5. Orig. art. has: 8 figures, 6 tables, 6 formulas.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 000

Card 2/2

ACC NR: A77005727

SOURCE CODE: UR/2563/66/000/267/0080/0082

AUTHORS: Podporkin, V. G.; Alenin, M. P.

ORG: none

TITLE: Torques during coarse tooth cutting of heat resistant steel KhN35VTYu

SOURCE: Leningrad. Politeknicheskii institut. Trudy. no. 267, 1966. Avtomatizatsiya i tekhnologiya mashinostroyeniya (Automation and technology in the machinery industry), 80-82

TOPIC TAGS: <sup>TORQUE, ALLOY</sup> metal cutting, gear cutting machine, tool <sup>STEEL</sup> ~~alloy~~, steel/ KhN35VTYu steel, 40Kh steel, VK8 ~~tool~~ alloy, T5K10 ~~tool~~ alloy, 5312 gear cutting machine

ABSTRACT: Experimental measurements of the cutting torques required during coarse gear cutting of steel KhN35VTYu gear teeth as a function of cutting parameters were made and compared with cutting torques required for 40Kh steel teeth. A modern gear cutting machine (model 5312) was used with a single-tooth miller of 160-mm diameter plated with hard alloys VK8 (for steel KhN35VTYu) and T5K10 (for steel 40Kh). Curves of cutting torque as a function of cutting speed ( $v = 20\text{--}200$  m/min), feed ( $S_z = 0.04\text{--}0.4$  mm/tooth), modulus of cutting wheel ( $m = 2\text{--}6$  mm) and tool wear ( $h_3 = 0.1\text{--}0.5$  mm) are presented for the two metals, and empirical equations are derived from these results in the form:

Card 1/2

ACC NR: AT7005727

$$M_{sp} = 156,5v^{-0.13}S_t^{0.54}m^{0.53}h_s^{0.60} \quad \text{kgm (steel KhN35VTYu);}$$

$$M_{sp} = 36v^{-0.13}S_t^{0.72}m^{0.8}h_s^{0.1} \quad \text{kgm (steel 40Kh),}$$

and

$$N_s = 0,213v^{0.97}S_t^{0.54}m^{0.53}h_s^{0.60} \quad \text{kgm (steel KhN35VTYu),}$$

$$N_s = 0,048v^{0.58}S_t^{0.72}m^{0.8}h_s^{0.1} \quad \text{kgm (steel 40Kh),}$$

respectively. In general, the cutting torque for the heat-resistant steel is 2.5--4 times higher than for steel 40Kh. Orig. art. has: 12 formulas and 4 figures.

SUB CODE: 13/ SUHM DATE: none/ ORIG REF: 002

Card 2/2

ALLEN, N.V.

Improve the structure of operational highway organizations.  
Avi. dir. 22 no. 6:30 Je '59. (MIRA 12:9)  
(Highway departments)