

NEUMOV, I.B.

Origin of rare-metal pegmatites in a deposit of Siberia. Trudy  
DZRE no.8:85-132 '62. (MIRA 16:1)

(Siberia—Pegmatites)  
(Siberia—Metals, Rare and minor)

SMIRNOV, Aleksandr Dmitriyevich; ~~NEUMOV, Igor' Borisovich;~~  
BULDAKOV, Vitaliy Vladimirovich; VLASOV, K.A., glav. red.;  
LEONT'YEV, L.N., doktor geol.-miner. nauk, otv. red.;  
PLATOV, N.A., Fred. 1-sd-va; VOLKOVA, V.V., tekhn. red.

[Riphean structures in the Eastern Sayan Mountains and the  
distribution of pegmatite zones in them] Rifeiskie struktury  
Vostochnogo Saiana i polozhenie v nikh pegmatitovykh polei.  
Moskva, Izd-vo AN SSSR, 1963. 152 p. (MIRA 16:7)

1. Chlen-korrespondent AN SSSR (for Vlasov).  
(Sayan Mountains--Pegmatites)

GYANDZHUNTSSEV, Yervand Tatevosovich, kand. ekon. nauk, dots.;  
NEDUMOV, Boris Ivanovich, inzh.; SPTRUK, G.G.;  
POMCHATSKIY, N.N.; ANDRIANOV, G.I., doktor ekon. nauk,  
prof., retsenzent; KUL'BERG, L.M., dots., kand. tekhn.  
nauk, retsenzent; GORDON, A.L., red.

[Economics and organization of radio production] Ekono-  
mika i organizatsiia radiotekhnicheskogo proizvodstva.  
Moskva. Energiia, 1964. 360 p. (MIKA 17:10)

1. Zaveduyushchiy kafedroy ekonomiki promyshlennosti Mo-  
skovskogo aviatsionnogo instituta (for Andrianov).
2. Kafedra ekonomiki promyshlennosti Moskovskogo aviatsion-  
nogo instituta (for Kul'berg).

18(6)

## AUTHORS:

Grigor'yev, A. T., Kuprina, V. V.,  
Nedumov, N. A.

SCV/79-4-2-24/34

## TITLE:

The Phase Diagram of the System Chromium - Tantalum  
(Diagramma sostoyaniya sistemy khrom - tantal)

## PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 3,  
pp 651-654 (USSR)

## ABSTRACT:

The system chromium - tantalum was investigated by the method of thermal and microscopic analysis. As initial product tantalum was used in a purity of 99.4 % and chromium in a purity of 99.68 %. Chromium diffuses extremely slowly in tantalum alloys. In order to attain the equilibrium a longer treatment at higher temperature is necessary. In the system the chemical compound  $Cr_2Ta$  is formed, which melts at  $2,020^{\circ}$  without decomposing. The chemical compound  $Cr_2Ta$  dissolves the individual components to a hardly recognizable extent. It was found that the chemical compound  $Cr_2Ta$  forms a eutectic with solid solutions of chromium in tantalum at  $1,980^{\circ}$  and 75 % tantalum. With solid solutions of tantalum

Card 1/2

The Phase Diagram of the System Chromium - Tantalum SCV/78-4-3-24/11

in chromium it forms a eutectic mixture at  $1,700^{\circ}$  and 31% tantalum. The solubility of tantalum in chromium amounts at a eutectic temperature to  $\sim 10\%$ . This value agrees well with the values given in publications. The cooling curve of the alloy was plotted corresponding to the chemical compound  $Cr_2Ta$ . The first thermal effect at  $2,020^{\circ}$  corresponds to the crystallization of the alloy from the liquid state. The second effect at  $1,905^{\circ}$  points to the transformation of the modification of  $Cr_2Ta$  from  $\zeta \rightarrow \epsilon$ . Based upon the results the phase diagram chromium - tantalum was plotted and is given in figure 4. There are 4 figures and 2 references

SUBMITTED: July 2, 1958

Card 2/2

83126

S/078/60/005/009/009/011  
B015/B064

18 1200

AUTHORS Cherkashina, N. V., Nedumov, N. A., Shavray, F. I.

TITLE Some Data on Alloys of the System Titanium - Chromium - Boron

PERIODICAL Zhurnal neorganicheskoy khimii, 1960 Vol. - No. 4  
pp. 2025-2031

TEXT The phase diagram of the ternary system Ti-Cr-B was investigated; first, the cross sections Cr-Ti<sub>2</sub>B and Cr-TiB<sub>2</sub> were studied (Tables 1, 2, composition of the mixtures). The samples were produced by mixing and melting the powders and were investigated both metallographically and with respect to microhardness (on the ПМТ-4 (PMT-3) device), while the alloys Cr-Ti<sub>2</sub>B were thermally analyzed with a device described in Refs. 10 and 11. Phase transformations were recorded by a differential thermometer (Fig. 1) while temperature was optically measured in an electric furnace (Fig. 2). Figs. 3 and 4 show the microstructure photographs of some alloys, the data of the microhardness of the phases are given in Tables 3 and 4. At 20 at%

Card 1/2

83126

Some Data on Alloys of the System  
Titanium - Chromium - Boron

8/078/60/005/009/009/001  
B015/B064

Ti<sub>2</sub>B or TiB<sub>2</sub> a eutectic occurs in the structure of the alloy. An increase of the Ti<sub>2</sub>B or TiB<sub>2</sub> content to more than 20 at% leads to the formation of an excessive boride phase whose microhardness is between 1500 and 2070 kg/mm<sup>2</sup> depending on the boron content. The results of thermal analysis show that apparently a ternary eutectic occurs in the system Ti-Cr-B whose formation temperature lies somewhat over 1500°C. Its composition could not be stated, it is, however, very likely to lie in the range of 70 at% Cr and 30 at% TiB<sub>2</sub>. There are 6 figures, 4 tables, and 11 references: 5 Soviet, 5 US, 1 German, 1 British, and 1 Danish

SUBMITTED June 20, 1959

Card 2/2

NEPUMOV, N.A.

18 12 55 1645 N.Y.N  
 5/07/64/005/811/02/02/02/02  
 8015/0000

Author: N. A. Neprumov, V. S. Shostakov, E. S. Shostakova, L. G. Shostakova, E. A. Shostakova

Topic: Polymorphic Transformations of Chromium in Alloys with Vanadium

Journal: Zhurnal Fizicheskoy Khimii, 1960, Vol. 34, No. 7, p. 2648-2652

Summary: The authors have established in Refs. 1-5 that chromium appears in the polymorphic transformations of the alloys. In addition to data from Refs. 1, 2, and 3, the authors present the results of a study on the polymorphic transformations of chromium in the constitution diagram Cr-V. To this end, specimens of alloys with 12 and 17 at.-% vanadium were prepared in previous experiments (Refs. 1, 2) with thermal analysis by means of the heating and cooling curves on a Beckman-DuPont Model 50 (TM-50) apparatus. The heating and cooling curves on a Beckman-DuPont Model 50 (TM-50) apparatus for the alloys (up to 1750°C) were measured. The constitution diagrams (Fig. 1) are drawn on the basis of microstructural determinations (Fig. 2) and thermal analysis (Table). The

Card 1/2

Polymorphic Transformations of Chromium in Alloys with Vanadium

Author: N. A. Neprumov, V. S. Shostakov, E. S. Shostakova, L. G. Shostakova, E. A. Shostakova

Journal: Zhurnal Fizicheskoy Khimii, 1960, Vol. 34, No. 7, p. 2648-2652

Summary: The authors have established in Refs. 1-5 that chromium appears in the polymorphic transformations of the alloys. In addition to data from Refs. 1, 2, and 3, the authors present the results of a study on the polymorphic transformations of chromium in the constitution diagram Cr-V. To this end, specimens of alloys with 12 and 17 at.-% vanadium were prepared in previous experiments (Refs. 1, 2) with thermal analysis by means of the heating and cooling curves on a Beckman-DuPont Model 50 (TM-50) apparatus. The heating and cooling curves on a Beckman-DuPont Model 50 (TM-50) apparatus for the alloys (up to 1750°C) were measured. The constitution diagrams (Fig. 1) are drawn on the basis of microstructural determinations (Fig. 2) and thermal analysis (Table). The

ASSOCIATION: Institute of Chemistry, Moscow State University, Department of Chemistry

SUBMITTED: June 9, 1960

Card 1/2



MEJUMOV, H.A. (Moscow)

High-temperature methods of contactless thermography. Zhur.  
fis.khim. 34 no.1:184-191 Ja '60. (NIRA 13:5)  
(Temperature--Measurement)

18.9260

UD16.2608.2208, 1918.  
1454

28871

S/10/17000/1-1009/020  
1918/1918

**AUTHORS:** Vedyayev, G.V. and ...  
**TITLE:** Investigation of ...  
system

**SYNOPSIS:** ...  
tekhnikeskaya nauka ...  
no. 8, 1961 pp. 60-7

**TEXT:** Prompted by the growing interest in alloys ...  
with light metals, the present authors ...  
of the Nb-Al system. The experimental alloys ...  
pared from 99.3% pure Nb ...  
2 000 °C, and 99.9% pure Al ...  
for melting the alloys. Each ...  
was remelted 5 - 6 times in the ...  
the absence of segregation being ...  
button after each melting operation. ...  
analysis, x-ray diffraction, hardness ...  
graphic examination were used to ...  
specimens subjected to the following ...  
Card 1/5

2887

Investigation of alloys

a) annealed at 1100°C for 5 hours and quenched in water  
 b) annealed for 24 hours at 1100°C and quenched in water  
 c) annealed for 24 hours at 1100°C and quenched in water  
 re-annealed for 24 hours at 200°C and quenched in water  
 down to room temperature. The microstructures of the alloys  
 was also examined. The results are shown in Fig. 1. The  
 diagram of the Nb-Al system was constructed from the data  
 in Fig. 1. The top and bottom composition axes are in at.  
 wt. Al. The vertical axis is temperature in °C. The circles  
 and squares indicate respectively the solid solution limits  
 the region of decomposition. The solid solution limits  
 region with a very small amount of Al. The 2-phase  
 2-phase regions. It will be seen that the NbAl phase  
 compounds are found in the system. The NbAl phase  
 of a peritectic reaction at 2300°C. The NbAl phase  
 lizing out from the melt. The NbAl phase  
 compounds 18.79% - 20.0% Al and 67% and 18.79% - 20.0% Al  
 the NbAl phase being relatively brittle.  
 Cont 2/3

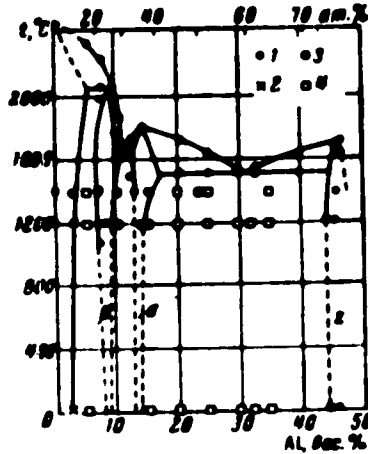
Investigation of alloys ....

28871  
S/180/61/000/004/009/020  
E193/E383

There are 5 figures and 6 references: 3 Soviet-block and 3 non-Soviet-bloc. The English-language reference quoted is: Ref. 5 - E. Wood, V. Compton, V. Matthias and E. Coren - Acta crystallogr., 1958, 11, 604.

SUBMITTED: December 13, 1960

Fig. 5:



Card 3/3

21754

18.1235

1496, 1454, also 1418

S/078/61/006/005/013/015  
B121/B208

**AUTHORS:** Grigor'yev, A. T., Sokolovskaya, Ye. M., Nedunov, N. A.,  
Maksimova, M. V., Sokolova, I. G., and Ye Yuy Pu

**TITLE:** Polymorphous conversion of chromium and the phase diagram of  
the system chromium - nickel in the range of concentrated  
chromium

**PERIODICAL:** Zhurnal neorganicheskoy khimii, v. 6, no. 5, 1961,  
1248 - 1251

**TEXT:** The alloys of chromium with nickel were studied in the range of concentrated chromium by microscopic, thermal and X-ray analyses. Thermal analyses were made by recording the heating and cooling curves of the alloys hardened at 1200°C by means of a WK-52 (PK-52) pyrometer. The phase diagram of the system chromium - nickel in the range of concentrated chromium was drawn on the basis of microstructural and thermal analyses; it is schematically presented in Fig. 1. Five homogeneous ranges of the solid solutions of  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ , and  $\epsilon$  modifications of chromium

Card 1/4

21754

S/078/61/006/005/013/015  
B121/B208

Polymorphous conversion of ...

were found which are separated by diphas ranges  $\alpha + \beta$ ,  $\beta + \gamma$ ,  $\gamma + \delta$ , and  $\delta + \epsilon$ . Four eutectoid conversions occur at 850, 960, 1140, and 1220°C. X-ray analysis indicated that the solid solution  $\epsilon$  of the alloy with 17% nickel has a body-centered cube with  $a = 2.879 - 3$  kÅ. In the alloy with 13% nickel, hardened at 1400°C, with the solid solution  $\epsilon + \delta$  the hexagonal lattice of the solid solution of  $\delta$  with the parameters  $a = 2.514$  kÅ,  $c = 6.445$  kÅ, and  $\frac{c}{a} = 1.62$  was found in addition to the body-centered cube of the solid solution of  $\epsilon$ . The alloys with the phases  $\alpha + \beta$  and  $\beta$  have a face-centered cube. Alloys with 17% nickel, hardened at 900°C and more, have a face-centered cube. The results obtained are in good agreement with the data in Refs. 1 - 6 (Ref. 1: A. T. Grigor'yev, L. N. Guseva, Ye. M. Sokolovskaya, M. V. Maksimova. Zh. neorgan. khimii, 4, 2168 (1959). Ref. 2: A. T. Grigor'yev, Ye. M. Sokolovskaya, Yu. P. Simanov, I. G. Sokolova, V. N. Pavlov, M. V. Maksimova. Vestn. MGU, no. 4, seriya II, khimiya, 23 (1960). Ref. 3: A. T. Grigor'yev, Ye. M. Sokolovskaya, Yu. P. Simanov, I. G. Sokolova, M. V. Maksimova, L. I. Pyatigorskaya. Zh. neorgan. khimii, 5, 2136 (1960). Ref. 4: A. T. Grigor'yev, Ye. M. Sokolovskaya, M. V. Maksimova, I. G. Sokolova, N. A. Nedumov. Zh. neorgan.

Card 2/4

21754

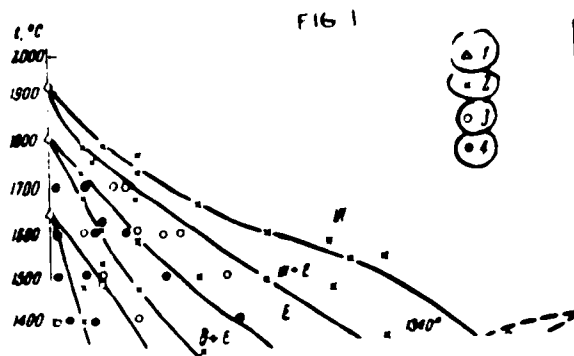
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B121/B208

Polymorphous conversion of ...

khimii, 5, 2640 (1960). Ref. 5: A. T. Grigor'yev, Ye Yuy Pu, Ye. M. Sokolovskaya. Zh. neorgan. khimii, 5, 2642 (1960). Ref. 6: A. T. Grigor'yev, Ye. M. Sokolovskaya, A. T. Nefedov, M. V. Maksimova. Vestn. MGU (in the press)). There are 2 figures, 1 table, and 14 references: 8 Soviet-bloc and 6 non-Soviet-bloc. The four most recent references to English-language publications read as follows: Ref. 7. M. Hansen, K. Anderko, Constitution of binary alloys, 1958; Ref. 8. D. S. Bloom, N. J. Grant, J. Metals, 3, 1009 (1951); Ref. 9: D. S. Bloom, J. W. Putman, N. J. Grant, J. Metals, 4, no. 6 (1952); Ref. 10: C. Stern, N. J. Grant, J. Metals, 7, 127 (1955).

SUBMITTED: December 8, 1960

Card 3/4



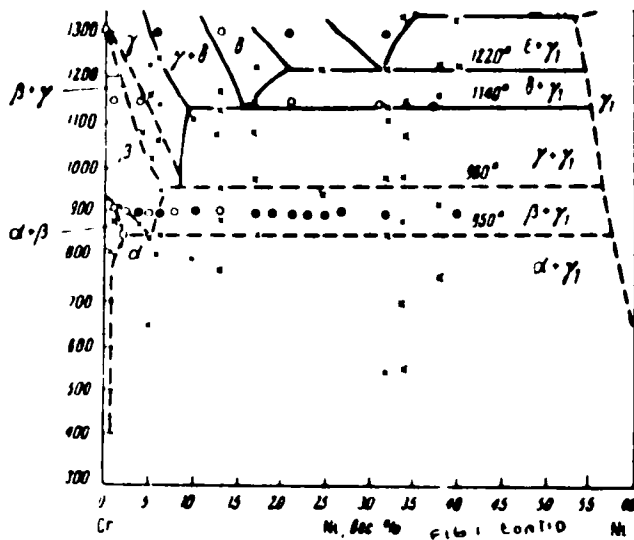
Polymorphous conversion of ...

21754  
S/078/61/006/005/013/015  
B121/B208

Fig. 1. Phase diagram of the system chromium - nickel in the range of concentrated chromium.

Legend:

- 1) polymorphous conversions;
- 2) thermal analysis;
- 3) one phase;
- 4) two phases



Card 4/4



S/226/62/000/006/006/016  
R193/R383

AUTHORS: Fedorov, T.F., Nedumov, N.A., Polyakova, M.D. and  
Shampay, F.I.

TITLE: Some data on the ternary titanium-boron-chromium  
system

PERIODICAL: Poroshkovaya metallurgiya, no. 6, 1962, 42 - 49

TEXT: The object of the present investigation was to study the constituents of the Cr-B and Ti-B-Cr systems. In the first stage of the investigation, thermal and metallographic analysis as well as hardness and microhardness measurements, conducted on Cr-B alloys with up to 40 at.% B, cooled slowly to room temperature or quenched from 1450 °C, were used to construct the Cr end of the constitution diagram of the Cr-B system. In the second stage, the same experimental techniques and, in some cases, X-ray diffraction analysis, were used to study the Ti-B-Cr system. The experimental alloys included the following: some binary Ti-B, B-Cr and Ti-Cr alloys; alloys of the pseudo-binary TiB-CrB, TiB<sub>2</sub>-CrB<sub>2</sub>, TiCr<sub>2</sub>-CrB, Ti-CrB<sub>2</sub>, Ti-Cr<sub>3</sub>B<sub>3</sub> and Cr-TiB<sub>2</sub> systems;

Card 1/2

Some data on ....

S/226/62/000/006/006/016  
E193/E383

alloys defined by sections parallel to the Cr-B side of the ternary system at 3, 10, 15, 25, 35 and 45% Ti. The results obtained were insufficient to construct a complete constitution diagram of the system studied. It was established, however, that the single-phase fields constituted only a small proportion of the isothermal section of the system at room temperature. These fields correspond to solid solutions based on Ti, Cr and B and on some binary and, possibly, ternary intermetallic compounds. In addition,  $TiB_2$  and  $CrB_2$  form a continuous series of solid solutions. There are 7 figures. ✓

ASSOCIATION: Institut metallurgii im. A.A. Baykova AN SSSR  
(Institute of Metallurgy im. A.A. Baykov, AS USSR)

SUBMITTED: April 14, 1962

Card 2/2

*NEZUMOV, N.A.*

AD No. 197-20 21 June

**TiCr<sub>2</sub>-NiCr<sub>2</sub> SYSTEM (USSR)**

Karalov, I. I., K. I. Shakhov, P. B. Bulberg, and N. A. Nezumov, IN:  
Akademiya nauk SSSR, Doklady, v. 149, no. 6, 21 Apr 1963, 1340-1342.  
S/020/03/140/006/017/027

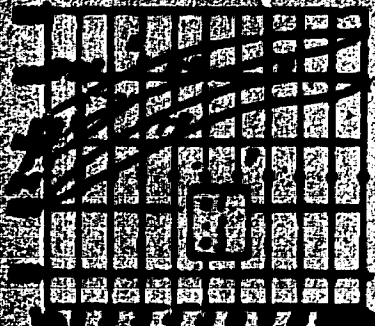
The TiCr<sub>2</sub>-NiCr<sub>2</sub> alloys with 0 to 100% TiCr<sub>2</sub> have been studied at the Insti-  
tute of Metallurgy named A. A. Baykov, Academy of Sciences USSR. From

Card 1/3

AID Nr. 995-10 21 June

TiCr<sub>2</sub>-NiCr<sub>2</sub> SYSTEM (Cont'd)

5/02/63/149/006/017/027



1. 2 - reaction and optical thermal analysis; 3 - x-ray diffraction analysis ( $\beta + L$ )

The results of the thermal and x-ray diffraction analyses, the phase diagram (see illustration) of the system was plotted. Over the entire concentration range, TiCr<sub>2</sub> and NiCr<sub>2</sub> form a continuous series of solid solutions not only between the high-temperature modifications  $\beta$  but also between the low-temperature modifications  $\gamma$ . The  $\gamma$ - $\beta$  transformation temperatures for TiCr<sub>2</sub> and NiCr<sub>2</sub> were determined as  $1230 \pm 10^\circ\text{C}$  and  $1245 \pm 10^\circ\text{C}$ , respectively. On the TiCr<sub>2</sub> side the  $\beta$ ,  $\beta + \beta$ ,  $\beta + L$ , and  $\beta + \beta + L$  regions are present, since the TiCr<sub>2</sub> compound in the binary Ti-Cr system is formed from a solid solution with a bcc lattice (the  $\beta$ -phase). X-ray diffraction patterns of alloys quenched from  $1200^\circ\text{C}$  showed that at this temperature the TiCr<sub>2</sub> compound is a homogeneous  $\beta$ -phase; the 90%

Cont 2/3

AED Br. 995-10 21 June

1000-1000 (1000)

4/000/03/10/004/007/007

$TiCr_2$  + 2%  $NbCr_2$  alloy consists of hexagonal  $\delta$  and cubic  $\gamma$  modifications. Alloys with more than 20%  $NbCr_2$ , as well as the  $NbCr_2$  compound, consist only of the cubic  $\gamma$  phase. In alloys annealed at 1000°C for 200 hrs, only the  $\gamma$  phase was found. Thus, the  $TiCr_2$ - $NbCr_2$  system can be regarded as a pseudobinary system of the ternary Ti-Nb-Cr system up to 1340°C, when decomposition of the  $TiCr_2$  compound to a solid solution of Ti and Cr occurs. (1001)

Cont 3/3

SD(1)-2/AUD(8)-25/AED(8)-3/AFTR/RAEM(6) JD/JG

ACCESSION NO: AF4020185 6/0078/64/009/004/0825/0889

AUTHOR: Bezdy, A. F.; Sokolovskaya, Ye. N.; Grigor'yev, A. T.; Sokolova, I.G.  
Edmond, R.

TITLE: Phase transformations in vanadium-tantalum alloys B

DATE: 1964, vol. 5, pp. 85-89

KEYWORDS: alloy, solid solution, crystal structure, alloy property, alloy phase, vanadium, vanadium base alloy, vanadium containing alloy, tantalum, tantalum base alloy, tantalum containing alloy

ABSTRACT: The V-Ta system was studied in view of incomplete and contradictory state of the literature. Some 39 alloys containing 0-100% tantalum were subjected to microscopic, thermal and x-ray diffraction analyses, and determinations of hardness, microhardness, specific electric resistance and of the temperature coefficient of electric resistance were made. The phase diagram (Fig. 1) shows that at temperatures above 1500C the alloys of the V-Ta system form a

Card 1/1

L 24484-65

ACCESSION NR: AP4029188

continuous series of solid solutions. At 1300 + 10C V<sub>2</sub>Ta intermetallic compound is formed; at 900 its area of homogeneity extends from 32-39 at% Ta. At 900 the two-phase area (alpha + V<sub>2</sub>Ta, V<sub>2</sub>Ta + beta) extends from 9-52 at%; at 1250 this area is reduced to 15-45 at% Ta. The curves of the composition dependence of hardness and specific electric resistance and its temperature coefficient show a smooth change within the regions of solid solutions and

having a tetragonal lattice, with parameters  $a = 5.041 \text{ \AA}$ ,  $c = 6.702$ , and  $z = 4$ .  
Orig. src. has 5 figures.

E 1822h-65 EAO(j)/BAC(c)/BAT(m)/BPC(s)/BPI/T/BPT(t)/BWP(b) Fr-4/4-4 IJP(c)

ACCESSION NO: AF404917 5/0020/64/199/001/0121/0121

AUTHORS: YOSHIKI, A. A.I. Grigorovich, V. K.; NOZUMI, W. K.; SHIBATA, A. K.  
(Contributing author: A.I. 586R)

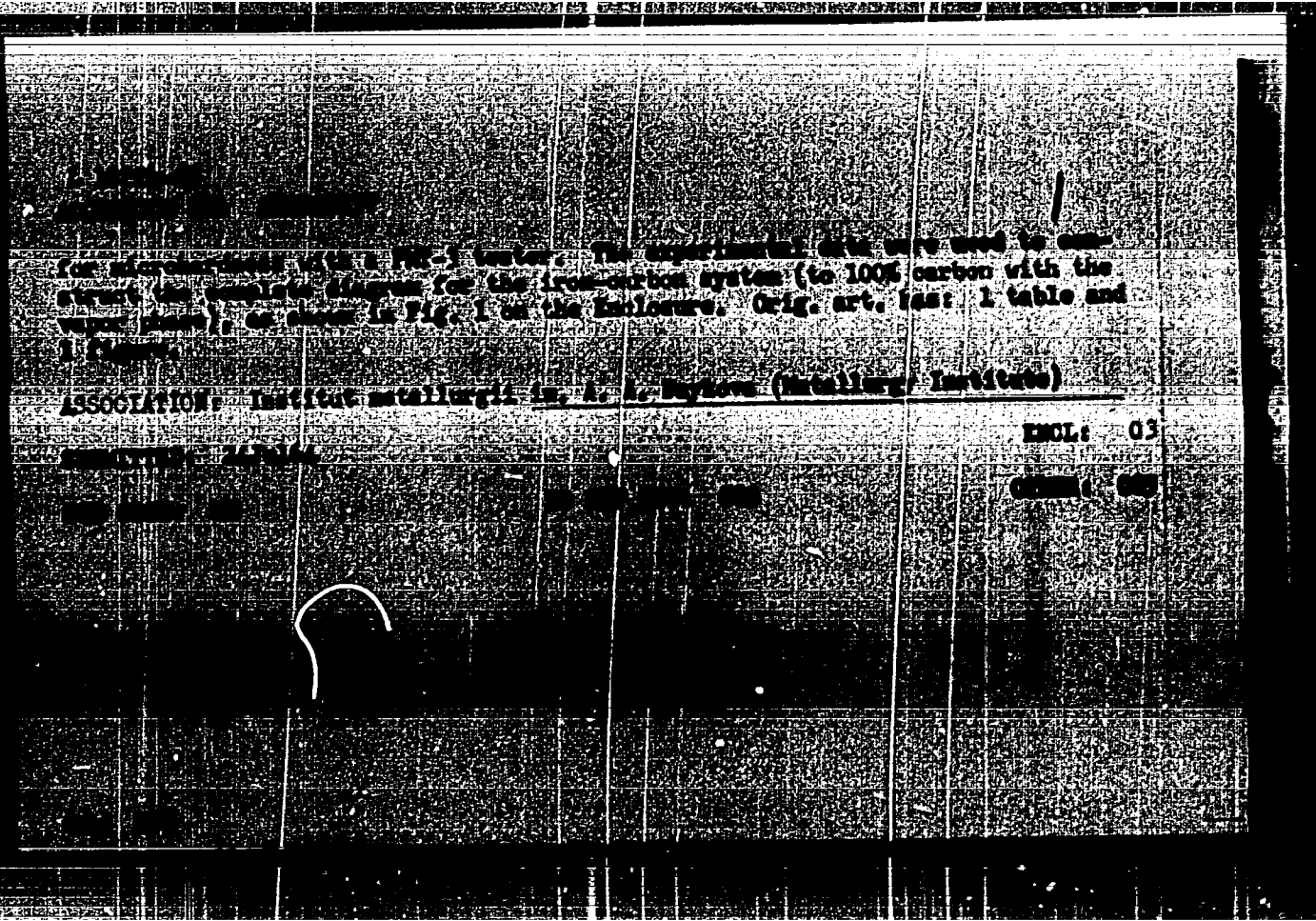
TITLE: Investigation in the region beyond the eutectic point of the iron-carbon system (1.18 to 2.7% C by weight) B

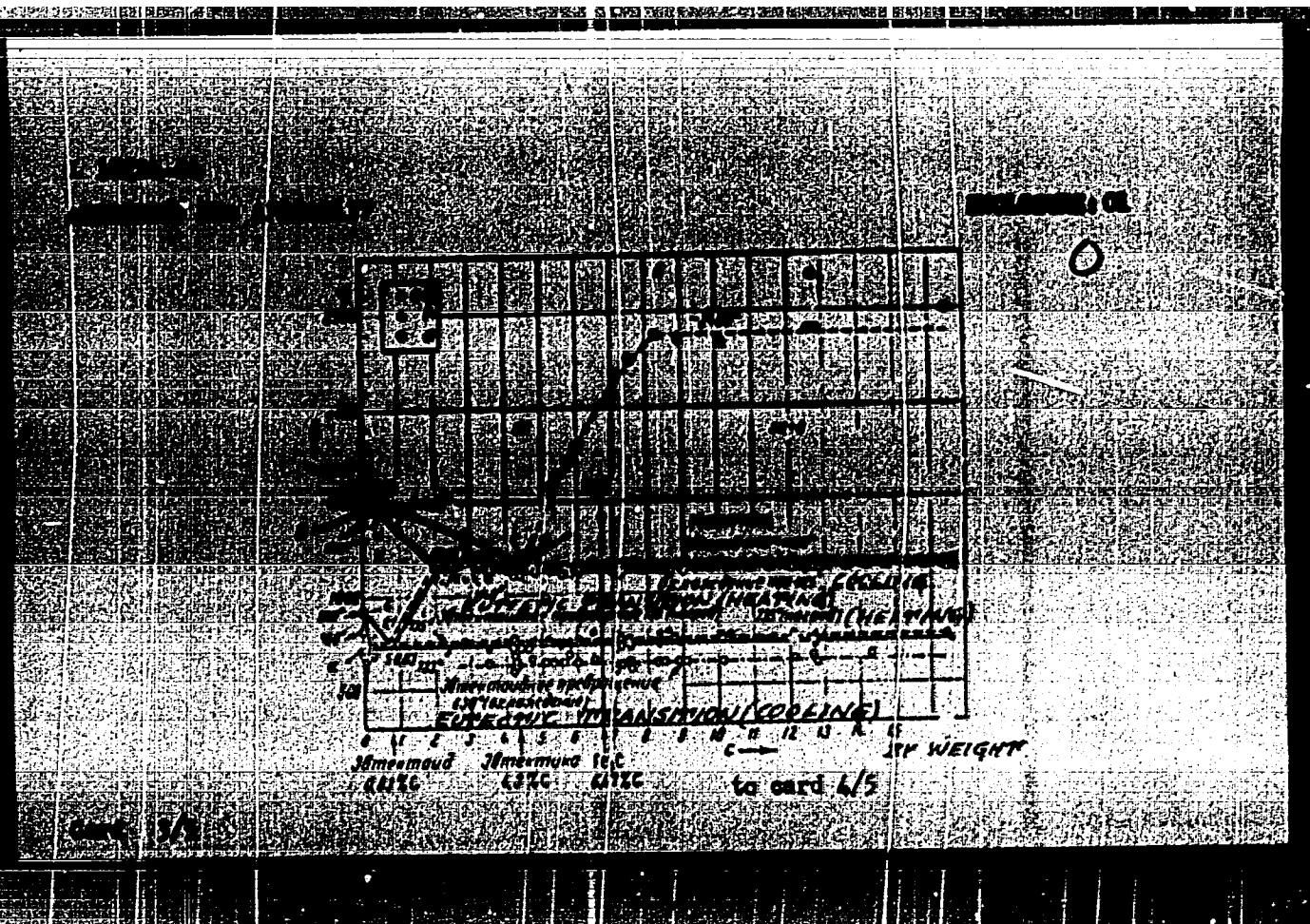
SOURCE: A.I. 586R, Metals, v. 159, no. 1, 1964, 121-124, and insert facing p. 121

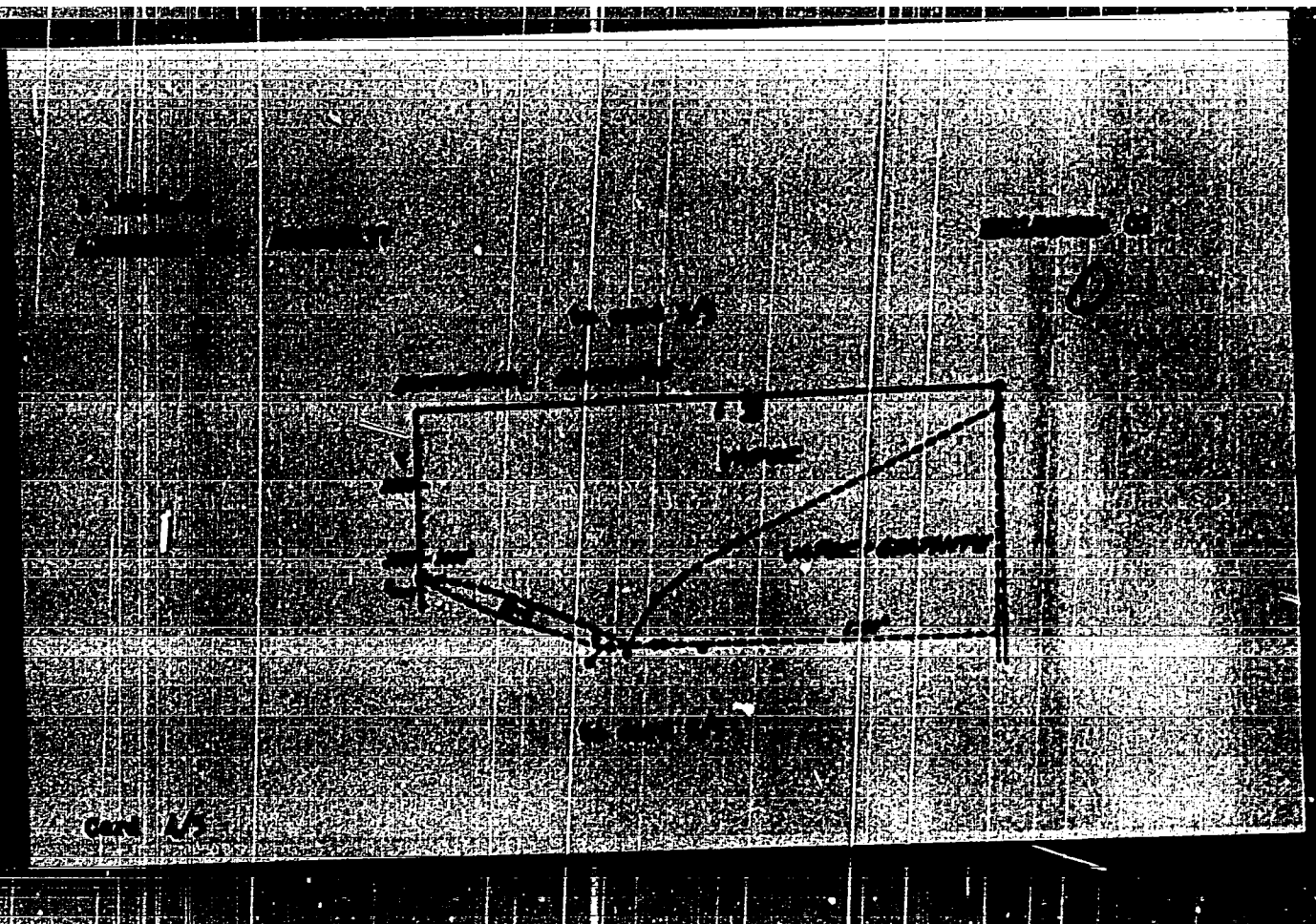
TOPIC TERMS: iron alloy, cast iron alloy, eutectic alloy, phase diagram / Fig. 1  
Microhardness tester

ABSTRACT: Iron alloys containing 1.0-2.6% carbon by weight were experimentally investigated. The alloys were prepared from electrolytic vacuum-cast iron and pure graphite in an induction furnace. The limiting carbon content was obtained in less than five minutes at temperatures below 2400°C by melting iron cylinders in covered carbon crucibles. Alloys containing more than 6.7% carbon were obtained by keeping carbon-saturated alloys at 2400-2500°C for extended periods of time. The samples underwent microstructure analysis (after etching with HNO<sub>3</sub> in alcohol) and x-ray structural analysis. All components were tested









L 18224-65

ADDITIONAL FILE ANALYSIS

ENCLOSURE: 03

0

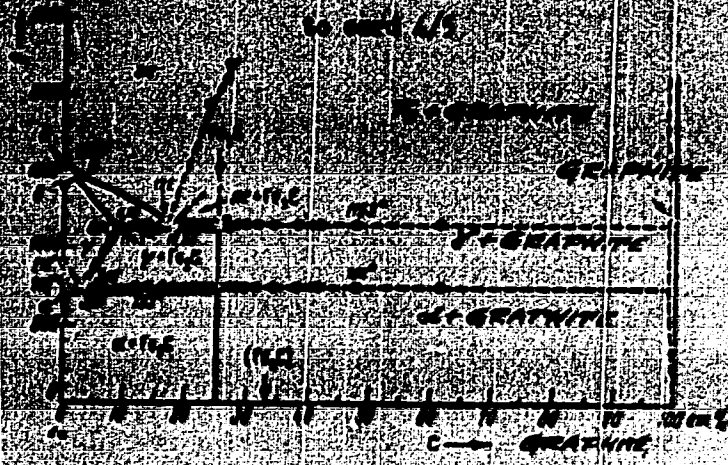


Fig. 1. Phase diagram of iron and carbon alloys: A - by weight percent (from 2.44-26.5%, using data of present work), a and b - thermal analysis: heating (a) and cooling (b); c - solubility of C; B - complete diagram in atomic percentages.

Card 5/5

APR 65		UR/0020/65/162/106/1304/1305		27 26 B
ACCESSION NR:	AP3017209	UR/0020/65/162/106/1304/1305		
AUTHOR:	Vertman, A. A.; Grigorovich, V. K.; Rodunov, S. A.; Samarin, A. M.			
TITLE:	A study of the systems cobalt - carbon and nickel - carbon			
SOURCE:	AN SSSR. Doklady, v. 162, no. 6, 1965, 1304-1305			
TOPIC TAGS:	cobalt alloy, nickel alloy, carbon alloy, carbide formation, phase			
<p>Abstract: The Co-C and Ni-C alloys were prepared from cobalt (99.9%) and nickel (99.9%) and saturated with carbon in crucibles of pure graphite under isothermal conditions. The structure of the alloys and their phase composition were studied by examining the microstructure and measuring the microscopic hardness of the structural components. The temperature of the phase transformations was determined by thermal analysis. A eutectic consisting of graphite and a solid solution of carbon in cobalt is formed at 12 at.% C and 1120C; the eutectic horizontal was traced up to 57.1 at.% C. Quenching of the alloys in water from the liquid state freezes a carbide eutectic consisting of Co<sub>3</sub>C and a solid solution of carbon in cobalt. The latter is unstable and decomposes on heating to 300-350C, and for</p>				
Card	1/2			

ACQUISITION NO: AP5617209

this reason the system Co - Co<sub>3</sub>C is highly metastable. The system Ni - C was studied up to 69.2 at.% C. It shows the presence of a eutectic horizontal up to 69.2 at.% C. In quenched alloys, the eutectic Ni<sub>3</sub>C is present which converts into a graphite eutectic on heating. The carbides Co<sub>3</sub>C and Ni<sub>3</sub>C are less stable than Fe<sub>3</sub>C and decompose even in the solid state; for this reason, they cannot exist in alloys rich in carbon. Phase diagrams of the Co - C and Ni - C systems were plotted. Orig. art. has 2 figures and 1 table.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy)

SUBMITTED: 07Jan65

ENCL: 00

SUB CODES: SS, MM

NO REF ROW: 002

OTHER: 000

Card: 217

NEPTMAN, A.A., THE OREGONIAN, ASTORIA, OR, MW, N.A. - DAMASCUS, SYRIA

Hypneutic test of the...  
lit. protiv. no. 2/2/1952



ACC NR: AT7004215

SOURCE CODE: UR/0000/06/000/000/000/000/000

AUTHOR: Nedumov, N. A.

ORG: none

TITLE: Application of a high-temperature, contactless, thermographic method to the study of metals and alloys

SOURCE: AN SSSR. Institut metallurgii. Eksperimental'naya tekhnika i metody vysokotemperaturnykh izmereniy (Experimental techniques and methods of high temperature measurement). Moscow, Izd-vo Nauka, 1966, 223-233

TOPIC TAGS: metallurgic research, alloy phase diagram, metal phase system, copper, nickel

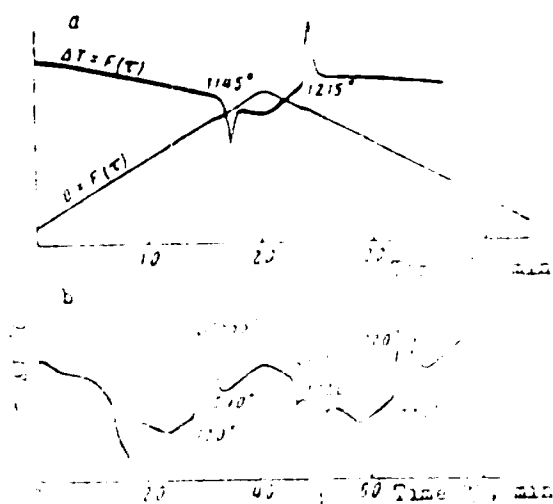
ABSTRACT: The application of a high-temperature, contactless, thermographic method to the study of metals and alloys was investigated. This method was developed by N. A. Nedumov (Zhurn. fiz. khim., 1960, 134, No. 1). The melting points and transition points of some forty metals and alloys were determined by the thermographic method and were compared with existing literature data. The results are tabulated, and it was found that the experimental results are in good agreement with the literature data. The thermograms of Cu-Ni alloy and the intermetallic compound NbCr<sub>2</sub> were also investigated; the results are shown graphically (see Fig. 1). The phase diagram Fe-Cr was investigated and is also presented. It is concluded that the thermographic method is rapid, accurate,

Card 1/2



ACC NR: AT7004215

Fig. 1. Thermograms of copper-nickel alloy with 23 wt. % Ni (a), and inter-metallic compound NbCr<sub>2</sub> (b)



and well suited for the determination of high-temperature phase changes in metallic alloys. Orig. art. has: 2 tables, 5 graphs, and 2 equations.

JOB CODE: 11/13/ SUBM DATE: none/ ORIG REF: 016/ DTI REF: 007

Card 2/2

NEDUMOV, N. V., Cand Tech Sci — (disc) <sup>Serge</sup> "Evaluation of trapezoid-shaped  
plates <sup>for outer-contour implement</sup> ~~to be fitted at all along their contour.~~" Mos, 1958. 7 pp

(Min of Higher Education USSR, Mos Order of Lenin Aviation Inst in  
Sergo Ordzhonikidze), 110 copies (KL, 15-58, 115)

- 40 -

MEJUMOV, N.V., inzh.

Designing isosceles-tapered plates. Izv.vys.ucheb.zav.;  
 mashinostr. no.6:54-61 '58. (MIRA 12:8)

1. Moskovskiy aviatsionnyy institut.  
 (Elastic plates and shells)

... JUNCV, I.V., and Tech. Sci. — (disc) <sup>Design</sup> ~~computation~~ ...  
in the form of a ~~trapezium~~ <sup>trapezium with</sup> sealing along the entire ...  
Mos., 1959. 7 pp. (Min of Higher Education USSR. Mos Order of  
Lenin Aviation Inst. ~~in~~ in /Sergo Ordzhonikidze). 160 ...  
(KL, 39-59, 104)

MEKUMOV, N.V., insh.

Design of thin trapezoidal plates fixed along the perimeter. Rasch.  
na prochn. no.5:109-145 '60. (MIRA 13:7)  
(Elastic plates and shells)

NEDUMOV, Nikolay Vasil'yevich; TIKHOMIROV, Ye.N., prof., retsensent;  
CHERNYSHEV, N.A., dots., retsensent; SIMAKINA, I.L., red.;  
BARANOVSKAYA, K.P., tekhn. red.

[Design of statically determined frames] Ruchet sta-  
ticheski opredelinykh ram. Moskva, Aviatsionnyi in-t  
im. Sergo Ordshonikidse, 1962. 112 p. (MIRA 16:4)  
(Structural frames)

PHASE I BOOK EXPLOITATION

SOV/6523

Nedunov, Nikolay Vasil'yevich

Raschet staticheski opredelennykh ram (Design of Statically Determinate Frames). Moscow, 1962. 112 p. 1000 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy ordena Lenina Aviatsionnyy institut imeni Sergo Ordzhonikidze.

Reviewers: YE. N. Tikhomirov, Professor and N. A. Churnyshev, Docent; Ed.: I. L. Simakina; Tech. Ed.: K. P. Baranovskaya; Managing Ed.: P. G. Popov.

PURPOSE: This book is intended as an auxiliary textbook for students majoring in structural mechanics and the strength of materials at higher technical schools; it may also be used as a manual for students in a correspondence course.

Card 1/3

**Design of Statically Determinate Frames**

**SOV/6523**

**COVERAGE:** The textbook deals with the material covered in a division of the course in the strength of materials given at higher technical schools and at the Moscow Aviation Institute. The theoretical aspects of stress analysis are discussed, and many examples of the calculation of stresses in plane and three-dimensional frames are given.

**TABLE OF CONTENTS:**

<b>Foreword</b>	<b>3</b>
<b>Ch. I. Plane Frames</b>	
1. Principal concepts	5
2. Construction of M, N, and Q diagrams	11
3. Frames with intermediate hinges	30
4. Closed contours with hinges	40
5. Potential energy of deformation	50

**Card 2/3**



**Design of Statically Determinate Frames**

**SOV/6523**

- 6. Determination of displacements
- 7. Principle of the reciprocity of displacements
- 8. Castigliano theorem

56  
74  
75

**Ch. II. Three-Dimensional Frames**

- 1. Principal concepts
- 2. Determination of internal forces and moments
- 3. Design for strength
- 4. Determination of displacements

80  
83  
91  
108

**AVAILABLE:** Library of Congress

**SUBJECT:** Strength of Materials

Card 3/3

3-30-64  
GE/rba/ef

NEI OMCV, N.V., kand. tekhn. nauk

Stability of compressed beams connected by structural  
elements. Mash. na prochn. no. 11:221-232, 1975.

(NBA 10:1)

NEDEMOV, P., D.

TITLE: Seminar on refractory metals, compounds, and alloys (Zhev, April 1962).

SOURCE: Atomnaya energiya, v. 15, no. 3, 1963, 265-272

ACCESSION NR: AP3008085

P. A. Nedumov, V. K. Grigorovich. Use of the tungsten resistance thermometer for contactless thermal analysis at temperatures up to 2500C.

Yu. A. Silonov. Unit for determining the evaporation rate of Ta and W on a microbalance for continuous weighing in vacuum.

V. V. Fesenko, S. P. Gordiyenko. Investigation of the composition of evaporation products by the mass-spectrometry method.

V. V. Fesenko, A. S. Bolgar. Evaporation rates and thermodynamic properties of Ti, Zr, Hf, Nb, and Ta monocarbides.

G. S. Pisarenko and others. Mechanical properties of refractory materials in the 20—3000C range.

V. I. Iverson, D. N. Eyduk. Laws governing deformations.

L. Kh. Pivovarov, A. V. Varaksina. The effect of bonding phase

Card 8/11

MEZUMOV, E., sekretar'.

Raise the level of work of trade-union organizations in the fishing industry. Sov. profsoyuzy 1 no.2:56-59 0 '53.

(MLRA 6:12)

1. Astrakhanskiy oblastnyy sovet professional'nykh soyuzov.

(Fisheries)

ZEL'VENSKIY, Ya.D.; NEDUMOVA, Ye.S.; PROKOPETS, V.Ye.

Production of hydrogen sulfide by the catalytic hydrogenation of  
sulfur. Khim. prom. no. 2:77-84 F '61. (MIRA 14:4)  
(Hydrogen sulfide) (Sulfur)

NEIDUMOVA, Ye.S.; BORESKOV, G.K.; SLIN'KO, M.G.

Kinetics of isotope exchange between hydrogen and water vapors on nickel catalysts. Part 1: Effect of transport processes on the reaction rate. Kin. i kat. 6 no.1:65-73 Ja-F '65. (MIRA 18:6)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleeva i Institut kataliza Sibirskogo otdeleniya AN SSSR.

NEDUR, A.

Rotors replace wings. p. 26

CEKOSLOVENSKY VOJAK. Praha, Czechoslovakia, Vol. 8, no. 15, July 1957

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

NEDUSHOV, I.B.

Effect of tectonics on the formation of rare-metal pegmatites.  
Trudy INGRE no.5:80-98 '61. (MIRA 15:7)  
(Pegmatites) (Geology, Structural)



NEDUZHEGO, I. A. and DERTKOT, L. Z. (Kiev Technological Institute of Light Industry)

"Results of investigations of thermal capacity of fiber polymers in a state transition from a basaltic bastina."

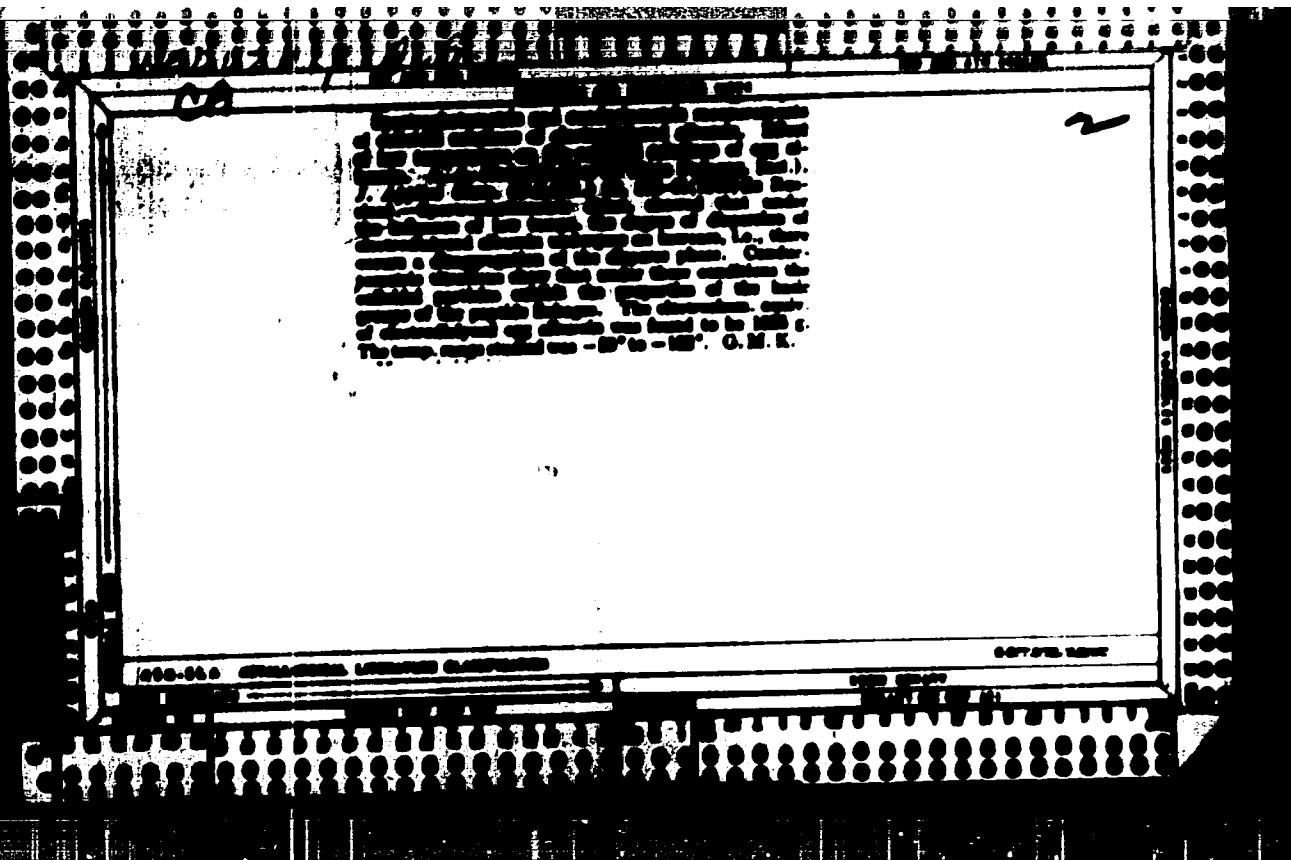
Report presented at the Section on Thermal-physical Properties and Non-stationary Thermal Capacity, Scientific Session, Council of Acad. Sci. Ukr. SSR on High Temperature Physics, Kiev, 2-4 Apr. 1964.

Reported in: *Temperatura Vysokih Temperatur*, No. 1, Kiev-Moscow, 1964, (TBC) 1964, p. 10, May 1964.

NEDUMOVA, Ye.S.; BORPSKOV, G.K.; SLIN'KO, M.G.

Kinetics of isotope exchange between hydrogen and water vapors over nickel catalysts. Part 2: Effect of pressure on the reaction rate in the range of internal diffusion. Kin. i kat. 6 no.2:360-363 Mr-Ap '65. (MIRA 18:7)

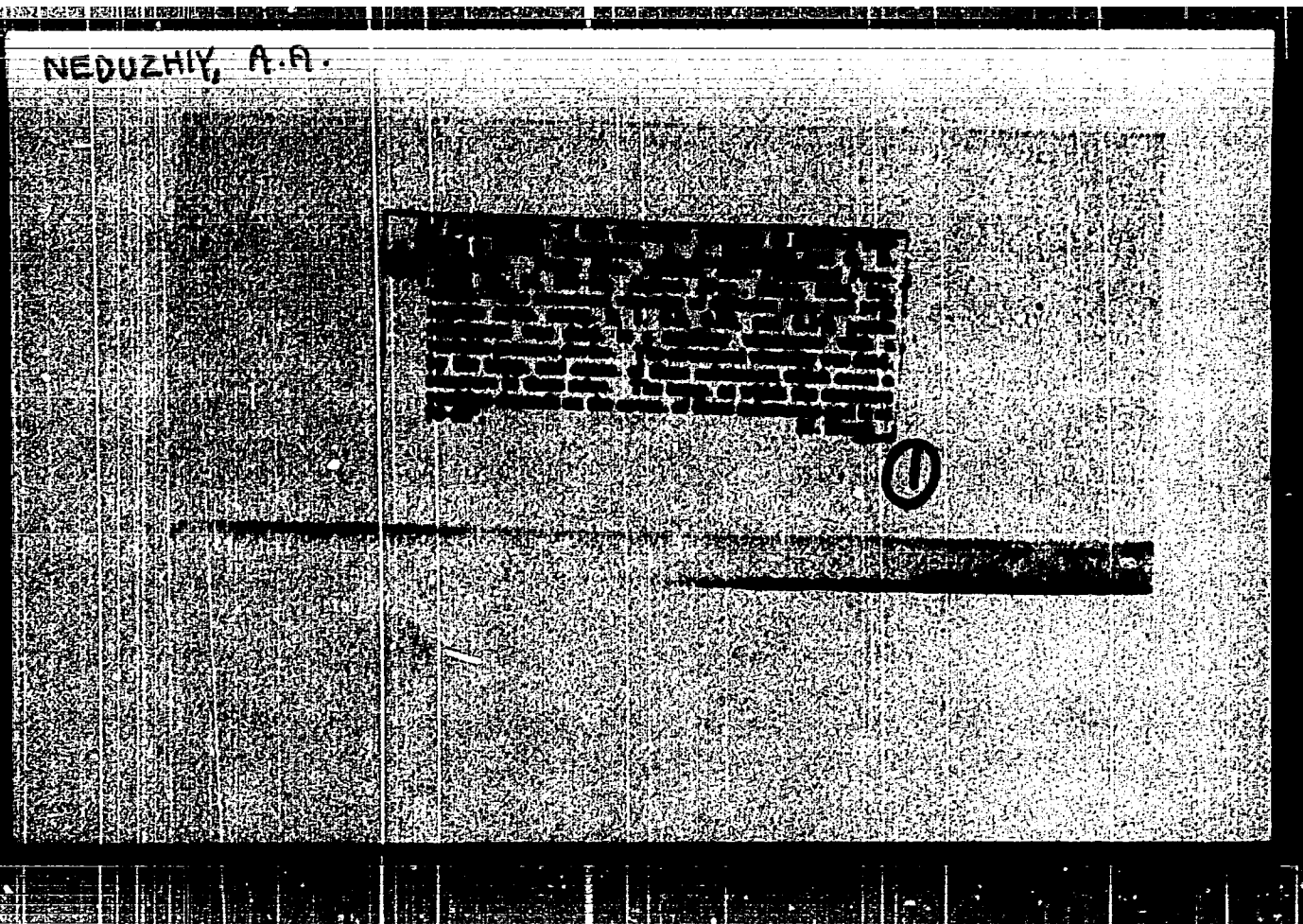
1. Moskovskiy khimiko-tehnologicheskii institut imeni Mendeleeva i Institut kataliza Sibirskogo otdeleniya AN SSSR.



CA MEDZHIV A. A.

2

In memory of S. I. D'yachkovskii, A. A. Medzhevskii.  
*Koloid Zhur.* 12, 229 (1967) — D. (1904-1967) was pro-  
fessor of the University of Gorki I. I. Hlizerman



NDUZHIY, A.A.; KURILENKO, O.D.

Structure forming process in starch glues. Trudy KTIPP no.19:119-122  
'58. (MIRA 12:12)

(Glue) (Starch)

KURILENKO, O.D.; KABAN, A.P.; NEDUZHIY, A.A.

Investigation of the rheological properties of paste-yielding starch, amylose, and amylopectin solutions. Izv.vys.ucheb.zav.; pishch.tekh. 1:12-16 '61. (MIRA 14:3)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlennosti. Kafedra fizicheskoy i kolloidnoy khimii.  
(Starch) (Amylose) (Amylopectin)

*Neaushy, I.A.*

*U.S.S.R. Izv. Akad. Nauk SSSR, Ser. Tekhn. Nauk, 1978, No. 14, p. 28. (1978)*

*In the course of work done on the investigation of turbulent flow and ejection, author makes certain statements which are basically of a qualitative nature, of the choice of dimensions of the mixing chamber and burner head, and also of the working conditions of atmospheric burners; in which mixing of the burning gas and air occurs partly in the burner (primary air) and partly in the combustion process (secondary air).*

*L. A. Klyachko, USSR*

*Source: of Raketnyy Zhurnal*

*Translation: courtesy Ministry of Supply, England*



SHVETS, Ivan Trofimovich, prof.; KONDAK, Mikhail Andrianovich, prof.;  
KIRAKOVSKIY, Nikolay Feliksovich, dotsent; ~~KEDUZHII, Ivan Afanas'yevich,~~  
dotsent; SHEVTSOV, Dmitriy Semenovich, dotsent; ~~SHALD'KO, Ivan~~  
Mikhaylovich, dotsent; PETRENKO, S.I., dotsent, kand.tekhn.nauk,  
retsensent; SERDYUKOV, P.T., inzh., red.; ONISHCHENKO, M.P., inzh.,  
red.; GORBONOSTAYPOL'SKAYA, M.S., tekhn.red.

[Heat engineering] Obshchais teplotekhnika. Moskva, Gos.nauchno-  
tekhn.isd-vo mashinostroit.lit-ry, 1960. 459 p.

(MIRA 14:3)

(Heat engineering)

17648

S/124/62/000/005/018/048  
D251/D308

26.2131

AUTHOR: Neduzhiy, I.A., and Labinov, S.D.

TITLE: Some singularities of the action of stream atomizers

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 5, 1962, 41,  
abstract, 5B244 (Izv. Kiyevsk. politekhn. in-ta, 1960,  
v. 30, 188 - 192)

TEXT: It is remarked that the simplified presentation of the action of a stream atomizer (pulverizer) given in physics courses is incorrect. In particular, it is remarked that the application of Bernouilli's equation in the given case, in the sense that with the increase of the current velocity the pressure in it falls and under certain definite circumstances may become less than atmospheric, is not permissible, since the static pressure in a sub-sonic stream flowing in the atmosphere cannot be less than atmospheric. A physical model is presented for the action of a stream atomizer which elucidates the case of the rise of rarefaction on the face of a tube situated in an atmospheric sub-sonic current in a direction perpendicular to the direction of the current. Hence the analogy  
Card 1/2

Some singularities of the action ...

S/124/62/000/005/018/048  
0251/0308

is studied with well-known phenomena of the flow of a sub-sonic current of a viscous liquid around a circular cylinder. In the author's opinion, after placing the ejected tube into the free stream local rarefactions occur on its surface. After consideration of this rarefaction, the ejected material comes into a vortex zone which is displaced with the current and carried by the stream. With the aim of deciding the question of the optimum position of a tube within a free stream, special experimental investigations were conducted. A plane nozzle with dimensions 27 x 43 mm was studied as the ejector. The velocity of the current could reach 60 m/sec. The pressure on the face of the tube was determined, and also the output of the atomizer in dependence on the position of the face of the tube in relation to the axis of the nozzle. It was shown that maximum rarefaction and maximum output occur, in the case when the face of the tube lies in the region of the central part of the ejecting stream. [Abstractor's note: Complete translation].

Card 2/2

ALABOVSKIY, A.N.; NEDUCHIY, I.A. ; PILIPKO, N.K.

Experimental investigation of the injection devices of gas  
burners. Gaz. prom. 6 no.9:13-17 '61. (MIRA 14:12)  
(Gas burners)

SHVETS, Ivan Trofimovich, prof.; TELUMINSKIY, Viev Ios. Ivanovich,  
prof.; KIRAKOVSKIY, Nikolay Feliksovich, dots.; ~~NEKUCHIY,~~  
~~Ivan Afanas'yevich, dots.; SHELOV'KO, Ivan Markavlovich,~~  
~~dots.; VOZNESHENSKIY, A.A., prof., retsenzent; LABUTIN, A.A.,~~  
spets. red.; Balyasnaya, A.Ye., red.

[General heat engineering] Obshchaya teplo tekhnika. [By  
I.T. Shvets i dr. Kiev, Izd-vo Kievskogo univ., 1963. 562 p.  
MIRA 11:10]

SOV. 112-58-2-3426

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 2, p 250 (USSR)

AUTHOR: Abramova, T. V., Gizetlov, V. A., and Neduzhny, S. A.

TITLE: Cable Lead-Sheath Fault Localization by Radon (Opredeleniye mesta povrezhdeniya svitsovoy obolochki kabelya s pomoshch'yu radona)

PERIODICAL: Tr. Sektora provedn. svyazi, Ukr. resp. pravl. Nauchno-tekhn. o-va. radiotekhn. i elektrosvyazi, 1956, Nr 2, pp 64-70

ABSTRACT: The Kiev branch office of TsNMS is developing a method of localizing cable lead-sheath faults by means of the radioactive inert gas radon. Experiments staged by the authors permit drawing the following conclusions: (1) In order to precisely localize the cable sheath fault, the shortest possible fault containing segment should be determined by a manometric or electric-signaling method. (2) The rate of radon flow in a 3x4x1.2 cable, at an air pressure of 1 atm, lies within 1-1.2 km/hour. (3) Radon diffusion to the surface of the ground in a sandy soil from a depth 1.2 m, with an average leakage of 6.47 mm<sup>2</sup>, takes 1.5-2 hours. (4) Radon can be detected on the surface by radiometric

\* Type MKB

Card 1/2

SOV/112-58-2-3426

**Cable Lead Sheath Fault Localization by Radon**

devices responding to  $\alpha$ ,  $\beta$ - $\gamma$  radiation; the radioactivity covers a small spot with a radius of 0.6-0.8 m and with a maximum in the center of the spot.

(5) The radiator maximum of the diffused radon can be displaced to one or the other side by not more than 1-2 m. (6) Soil temperature and moisture do not materially affect the radon diffusion under winter or summer conditions.

(7) The detection of a leakage spot in a cable sheathing by means of radon is practically possible. Attention is called to the necessity of precautions in handling radon.

S. I. Kh.

Card 2/2

*12-12-57*

CABLE

"Determination of Leak in Cable Sheath with the Aid of Radioactive Gases" by T. V. Abramova, V. A. Gizetulov and S. A. Neduzhiy, Engineers, Junior Scientists of the Cable Division, Scientific Research Institute for Communication. Vestnik Svyazi, No 12, December 1957, p. 4.

Description of a method that permits determination of leakage in a cable with an accuracy to within 50 meters. The radioactive gas usually employed is radon and methyl bromide. A gamma counter is used as a detector.

*From Dept. Int. for the Dept. Communications*

Card: 1/1



S/194/61/000/007/046/079  
D201/D305

AUTHOR: Neduzhiy, S.A.

TITLE: The use of ultrasound in the process of preparing photo-emulsion

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1961, 14, abstract 7 E88 (Tr. Vses. n.-i. kinofotoin-ta, 1959, no. 28, 133-147)

TEXT: A survey is given of works considering the effect of ultrasound oscillations in the frequency range 100 kc/s - 2 Mc/s on the process of preparing the photo-emulsion  $\Phi$  (F) and also of works concerned with the showing of a sudden picture under the influence of ultrasonic fields and of mechanical pressure. The transmitter used by various authors were piezoelectric transducers made of quartz or barium titanate ceramics, operating from 300 W to 2 kW generators. The ultrasonic oscillations may be applied during either the whole process of F preparation or in its separate stages

Card 1/2

The use of ultrasound...

S/194/61/000/007/046/079  
D201/D305

such as emulsification, first or second stage of maturing, and peptization. The effect of ultrasonic oscillations may result in increased definition properties of F. This effect may be explained by dispersion properties of US, thermal US effect and by micro mixing in the US field. It has been found that at a greater than optimum US intensity and at mechanical pressures of the order of 1000 - 1500 kg/cm<sup>2</sup> a hidden picture is being reproduced in F. 22 references. [Abstracter's note: Complete translation]

Card 2/2

S/081/61/000/011/011/040  
B105/B203

AUTHOR: Nedozhny, S. A.

TITLE: Study of the emulsification mechanism caused by the effect of ultrasonic waves

PERIODICAL: Referativnyy zhurnal Khimiya no. 11, 1961, abstract 11000b (Tr. Vses. nauch. konf. fotoinst. 1961, no. 11, pp. 100)

TEXT: The author studied the mechanism of formation of emulsions in a liquid under the action of standing ultrasonic waves with a frequency of 1.5 MHz in the system (n-butyl phthalate-water). The rate of formation of E depends on the intensity of irradiation. The concentration of the emulsion E grows up to a certain limit with the time of irradiating; the maximum concentration, however, increases with increasing wave intensity. (Abstracts in Russian. Complete translation.)

Card 1/1

NEDUZHIIY, S.A.

Dependence of the process of emulsification on the intensity of  
ultrasound. Akust. zhur. 7 no.1:99-100 '61. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy kino-fotoinstitut,  
Moskva.

(Ultrasonic waves)  
(Emulsions)

VEDUZHIY, S.A.

Effect of the ultrasonic wave intensity on the state of a dispersed phase at the instant of emulsification. Akust.zhur. 7 no.2:265-266 '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy kino-fotoinstitut, Moskva. (Ultrasonic waves—Industrial applications) (Emulsions)

NEDUZHIY, S.A.

Study of the emulsification process induced by sonic and ultrasonic vibrations. Akust. zhur. 7 no.3:275-294 '61. (MIRA 14:9)

1. Nauchno-issledovatel'skiy kinofotoinstitut, Moskva.  
(Sound waves--Industrial applications)  
(Emulsions)

NEZDUZHIIY, S.A.

Some particular features of emulsion formation induced by  
ultrasonic waves [with summary in English]. Koll.zhur. 23  
no.4:448-453 J1-Ag '61. (MIRA 14:8)

1. Nauchno-issledovatel'skiy kinofotoinstitut, Laboratoriya  
akustiki, Moskva.  
(Emulsions) (Ultrasonic waves)

MEUZHIY, S.A.

Formation of emulsions as dependent on ultrasonic intensity. Akust.  
shur. 9 no.1:125-126 '63. (MIRA 16:5)

1. Vsesoyuznyy kino-fotoinstitut, Moskva.  
(Emulsions) (Ultrasonic waves)



NEUZHIY, S.A.

Effect of ultrasonic frequency on the composition of the  
disperse phase of an emulsion at the moment of emulsification.  
Akust. zhur. 9 no.2:241-243 '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy kino-fotoinstitut,  
Moskva.

(Ultrasonic waves) (Emulsions)

NEQUZHIY, N. A.

DATA SET OF PRODUCTION OF THE ... OF ...  
emission phase ... ..  
... ..

- National ... ..

NEDUZHIY, S.A.

Relation between the nephelometer readings and the absolute values of the concentration of highly disperse emulsions with high uniformity of disperse phase particles. Koll. zhur. 26 no.4:524-526 J1-Ag '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy kinofotoinstitut, Moskva.

NEDUZHKO, M. I.

PA 26/49T32

**USSR/Engineering  
Furnaces, Blast**

**Aug 48**

**"Assembling a Welded Blast Furnace Having a Capacity of 1,300 Tons," M. I. Neduzhko, 3 pp**

**"Stroitel' Prom" No 8**

**Subject blast furnace, installed at Zaporogstal Factory, was damaged by the Germans. Describes measures employed by Stalimontazhtrest in repairing the furnace in 1948. Several photographs show various stages in the reconstruction procedure.**

**26/49T32**

KOSHELYUK, Ye.G.; ~~NEUZHEKO~~, N.Ya., dorozhnyy master (stantsiya Zachepilovka, Stalinskoy dorogi); YEGOROV, M.I., dorozhnyy master (stantsiya Kakhovka, Stalinskoy dorogi); GUYTAN, A.M., insh.; KOREN', P.T., putevoy obkhodchik (Vil'nyus); GRISHANKOV, V.G., putevoy obkhodchik (Vil'nyus); KURSHNEVA, M.N., dezhurnaya po pereyedu (Vil'nyus); BALAKIN, B.N.; PASECHNIK, A.I.; CHERDANTSEV, A. Ye., dorozhnyy master (stantsiya Verkh-Keyvinsk, Sverdlovskoy dorogi); STROCHKOV, A.A., insh.

Letters to the editor. Put' i put.khos. 4 no.2:40-42 P '60.  
(MIRA 13:5)

1. Mekhanik puteizmeritel'noy teleshki, stantsiya Kovel', L'vovskoy dorogi (for Koshelyuk). 2. Zamestitel' nachal'nika distantsii puti, stantsiya Galich, Severnoy dorogi (for Balakin). 3. Inshener distantsii, stantsiya Sambor, L'vovskoy dorogi (for Pasechnik).  
(Railroads)

NEDUZHKO, Ye. A.

Improvement of the criterion equation of the heat transfer in  
the boiling of masselite. *Izv.vys.ucheb.zav.; pishch.tekh.no. 2:*  
125-126 '64. (MIRA 17:5)

NEDVAYLO, A., (1st Lt Col, Twice Hero of the Soviet Union)

Author of article, "Critique of Aerial Gunnery Practice Flights," encouraging the holding of such critiques after flights. (Vestnik Vozdushnogo Flota, Moscow, No 10, Oct 53)

SO: SUM No. 208, 9 Sep 1954

NEDVED, Bohumil

Mechanized processing of the data on railroad operation.  
Doprava no.11:371-374 '62.



NEDVED, Bohuslav, inz.

Possibility of reducing the topographic revision of open terrain  
in the map 1: 10,000. Geod kart obsor 8 no.12:22<sup>e</sup>-231 D '62.

1. Ustredni sprava geodesie a kartografie, Praha.

NEJEDLIK, Bohuslav, in:

Photogrammetric survey of relief in woodlands. *Průmysl  
obzor* 11 no.2:34-39. Feb 1965.

1. Central Administration of Geodesy and Cartography. Prague.

L 11221-66

ACC NR: AP6004788

SOURCE CODE: CZ/0024/65/000/002/0034/0039

AUTHOR: Miroslav, Bohuslav (Engineer)

ORG: Central Geodesic and Cartographic Office, Prague (Ustredni sprava geodesie a kartografie)

TITLE: Photogrammetric surveying of relief in woodlands

SOURCE: Geodeticky a kartograficky obsor, no. 2, 1965, 34-39

TOPIC TAGS: photogrammetry, mapping, geographic survey

ABSTRACT: The article discusses the problems in mapping terrain covered with woods. Tables of the errors of photogrammetric data determined from control point data are given. This work was presented by Eng. Jaroslav Slitr. Orig. art. has: 5 tables.

[JPRS]

SUB CODE: 08 / SUMM DATE: none / ORIG REF: 004

25  
B

HW  
Card 2/1

UDC: 528.721.28:634.0

64-005-65 ENT(a)/ENT(l)/EPA(a)-2/ENT(w)/RPT(c)/ENG(v)/ENF(v)/T-2/ENF(k)/  
ENT(l)/ENF(l) W/D

ACCESSION NR: AT5009463

Z/0000/64/000/000/0212/0215

AUTHOR: Kady, J. J., 65

36  
33  
BT

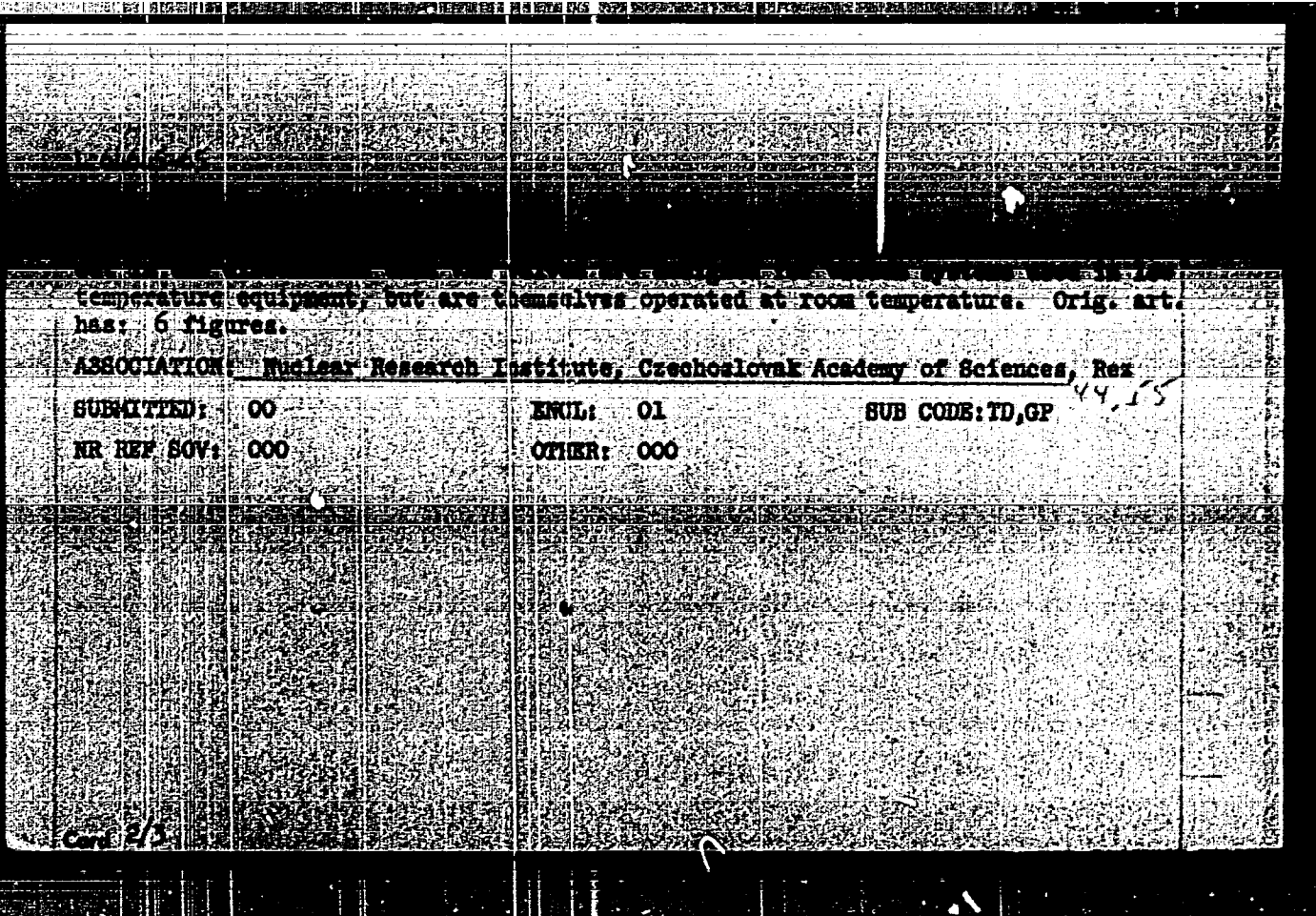
TITLE: New types of metal vacuum valves

SOURCE: Conference on Low Temperature Physics and Techniques, 3d, Prague, 1963. Physics and techniques of low temperatures, proceedings of the conference. Prague, Publ. House of the Czechosl. Academy of Sciences, 1964, 212-215

TOPIC TAGS: ultrahigh vacuum, vacuum seal, cryogenic valve

ABSTRACT: The valves described were designed to meet the following requirements: reliable functioning at a vacuum of  $10^{-8}$  mm Hg and better, simplicity of manufacture, use of available commercial materials, small size, and minimum breakdown. The valves operate on the use of O-rings, which have hitherto been used only for static vacuum packing (e. g., in flange joints) and in hydraulic mechanisms. Several models of the valves are described, with the O-rings placed in grooves on the stationary or on the moving parts of the valve. A typical construction is shown in Fig. 1 of the Enclosure. The operation of the valve is briefly described. A feature of the design shown in the figure is that provision is made to prevent the grease from getting below the packing ring and releasing gas in the vacuum chamber. The valves operated satisfactorily with a vacuum up to  $10^{-7}$  mm Hg. It was pointed

Card 1/3



temperature equipment, but are themselves operated at room temperature. Orig. art. has 6 figures.

ASSOCIATION: Nuclear Research Institute, Czechoslovak Academy of Sciences, Rez

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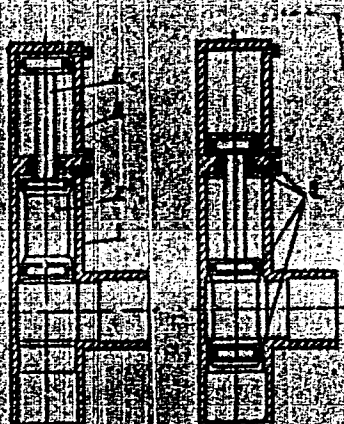


Fig. 1. Metal-vacuum valve.

1 - body of cylinder, 2 - lower piston, 3 - upper cylinder, 4 - driving piston, 5 - seal

Card 3/3

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AUTHOR: Koles, Miroslav (Koles, M.); Kofrova, Vlasta; Soukup, Frantisek; Sefratta, Stanislav (Sefratta, S.); Sestl, Miroslav (Sestl, M.); Svec, Karel (Svec, K.)

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TITLE: A device for studying the gamma radiation of oriented nuclei

SOURCE: Jaderna energie, v. 10, no. 7, 1964, 243-246

TOPIC TAGS: gamma radiation, oriented nucleus, paramagnetic crystal, adiabatic demagnetization, one stage cryostat, liquid helium bath, vacuum casing, thermal insulation, scintillation spectrometer

ABSTRACT: The article describes a device with which a temperature on the order of 0.01°K was reached for the first time in the CSR in a paramagnetic crystal by adiabatic demagnetization, starting from a temperature of 1°K to which the crystal had been cooled. A one-stage cryostat and the experimental space with the sample were immersed in a liquid helium bath with a temperature of 4.2°K. Thermal insulation was insured by a vacuum casing. Vacuum apparatus, mostly of glass, served to evacuate the various spaces of the low-temperature apparatus and to ensure the liquid helium feed. In the verification of the operation of the whole device Co<sup>60</sup> nuclei were oriented, set up directly in the cooling crystal of cerium magnesium

Card 1/1

L 26372-65

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Adiabatic demagnetization of this crystal was effected with a IAMA 80 electromagnet of a maximum field intensity of more than 20,000 gauss to zero field strength. The  $\text{Co}^{60}$  nuclei were then oriented by the Bleary method. Gamma radiation was detected by single channel scintillation spectrometers in the  $\theta = 0$  and  $\theta = \pi/2$  directions. The temperature of the crystal after demagnetization was measured by the ballistic method from the change of its susceptibility. The dependence of the angular distribution of gamma radiation on temperature in  $\text{Co}^{60}$  nuclei whose spins at the same temperatures had been oriented using the anisotropy of the internal field in a paramagnetic crystal was measured. The time dependence of the ballistic error and the characteristic curve  $W(0)$  and  $W(\pi/2)$  after demagnetization were independently measured in the experiments. Comparison of both relations shows that experiment is in good agreement with theory in the temperature interval 0.05 to  $0.10^\circ\text{K}$ ; at  $T \leq 0.05^\circ\text{K}$  the measured value is less than the theoretical value. The results obtained are in agreement with other experiments with  $\text{Co}^{60}$  in which other methods of orientation were used, and confirm the correct functioning of the device. These methods for studying oriented radioactive nuclei enrich the fund of basic research in nuclear physics. The authors express their thanks to their co-workers Novakov, Praskov, Rodov, and Sedinov in the building and testing of the apparatus. Orig. art. has: 6 formulas and 5 figures.

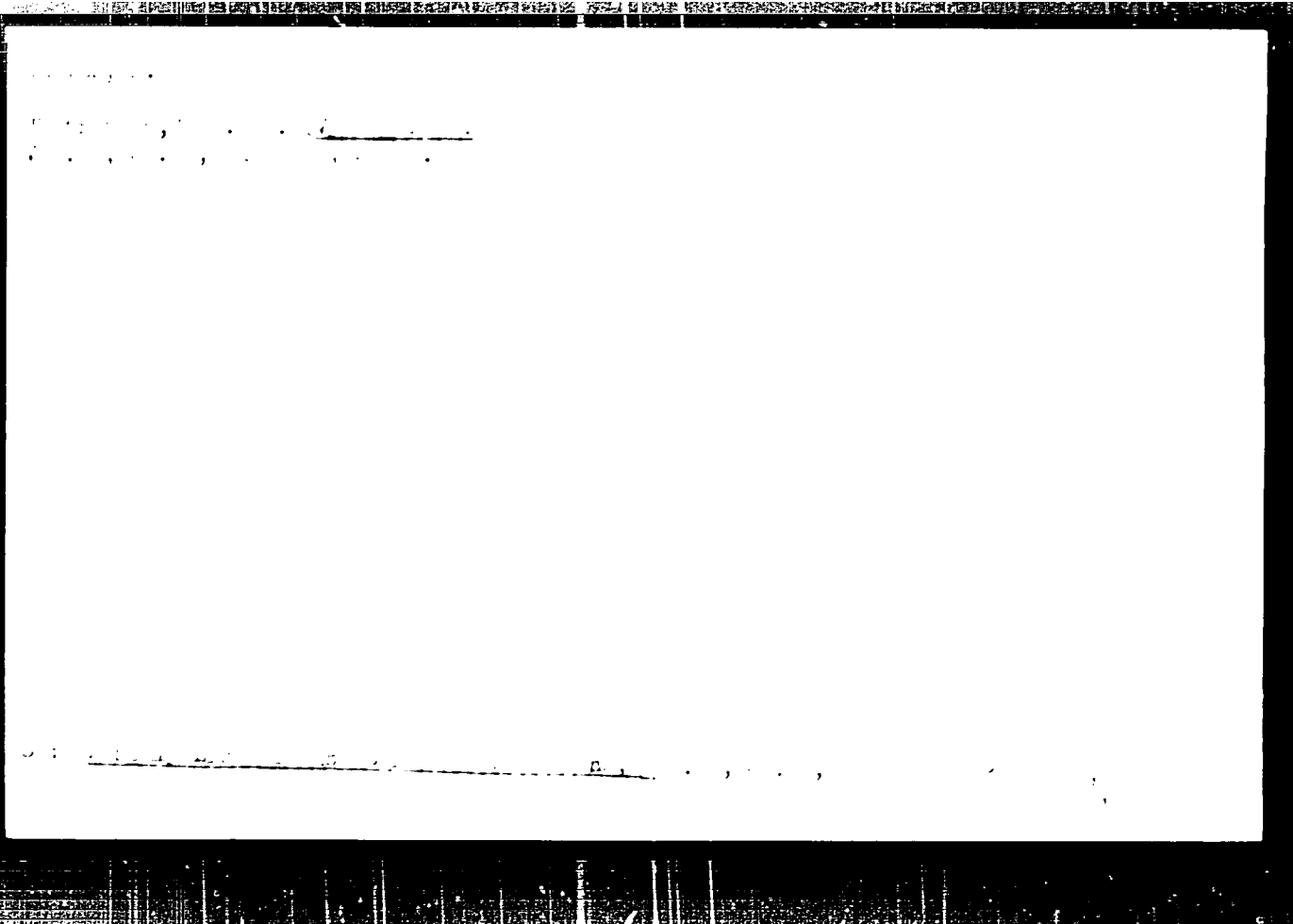


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ACCESSION NR: AP042144

ABSTRACTOR: Datar jaderného fyzikálního ústavu (Institute of Nuclear Physics,  
Czechoslovakia)

SUBMITTED: 00 INCL: 00 SUB CODE: NP, 45  
NO REF SOV: 000 OTHER: 006

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NEDVED, M.

"Nutrition," p. 312.

(Časopis Lékaři Českych, Vol.92, No.12, Mar. 1953, Praha.)

SO: Monthly List of East European Vol.2, No.9 Accessions,/Library of Congress, September 1953, Encl.

REDVED, E.

New rotar-mixing machines.

F. 212 (Mechanizace) Vol. 4, No. 1, June 1957, Czechoslovakia.

MONTHLY INDEX OF EAST EUROPEAN ACADEMICS (SERIAL), VOL. 7, NO. 1, JAN. 1959

NEDVEDEV, S. S.

USSR/Chemistry - Polymerization  
Chemistry - Anisotropes

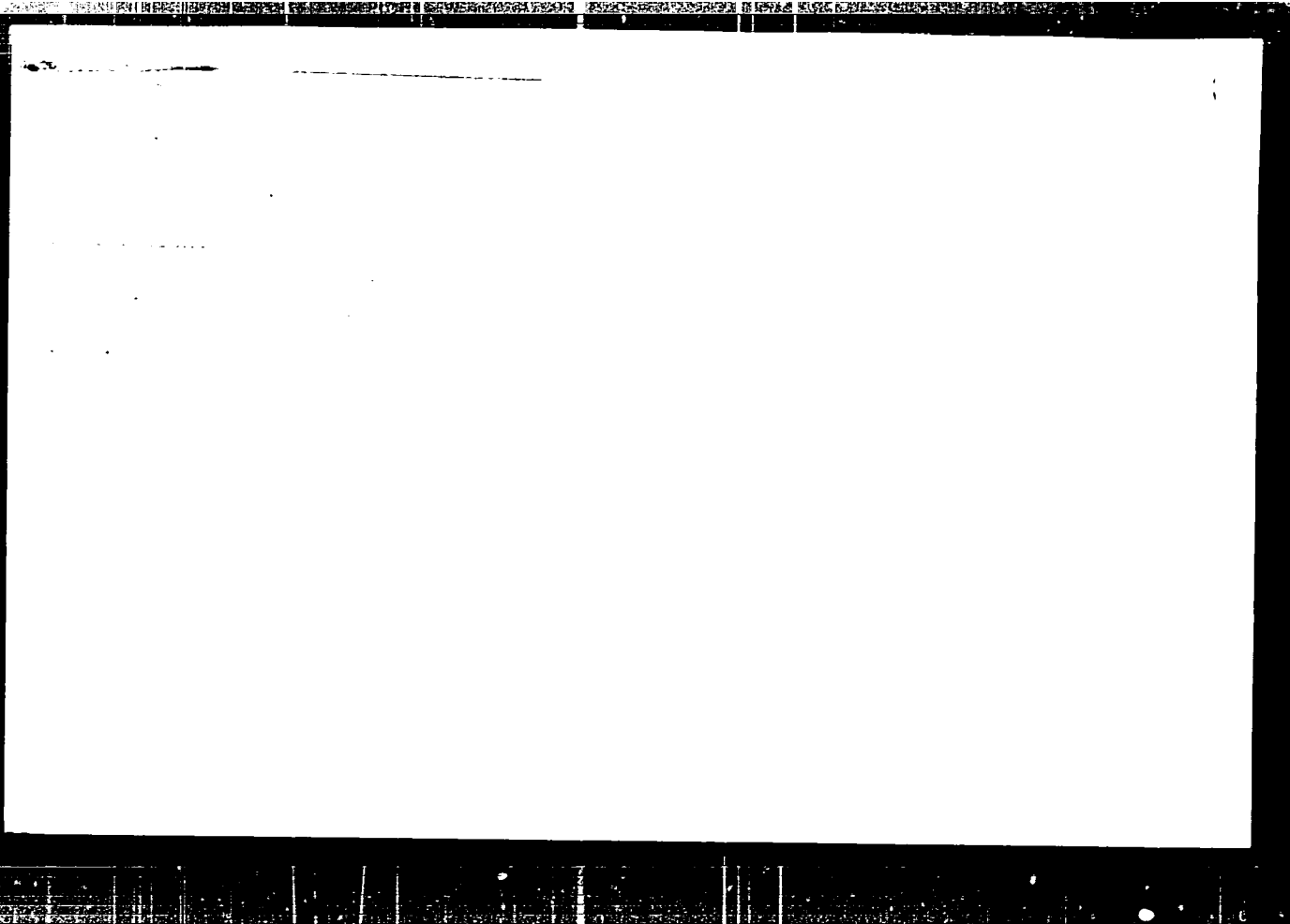
Apr 47

"Some Problems of Binary Copolymerization," L. M. Gindin, A. D. Abkin, S. S. Nedviev, 4 pp

"CR Acad Sci" Vol XVI, No 2

Differential equations and their solutions, describing the subject phenomenon. Study of anisotropic (external boiling point) mixtures and the limits to polymerization.

HA 1170



JANDA, Frantisek, doc. MUDr.; KAPALIN, Vladislav, CSc, MUDr.; NEDVEDOVA,  
Zdena, MUDr.; STUDLIKOVA, Zdenka, MUDr.

Hygiene of children and adolescents under day care. Zdrav.  
aktuality 153:1-106 '63

+

MEDVEDOVA-NEJEDLA, Z.

Infectious diseases and epidemiology and nurseries. *Pediat. listy*  
Praha 6 no.4:232-233 July-Aug 1951. (CML 21:1)



**NEDEDOVA, Zdena, MUDr.**

A type of nursery. Cesk. zdravot. 5 no.4:210-212 Apr 57.

1. Ministerstvo zdravotnictvi.  
(INFANT CARE,  
nurseries in Czech. (Cs))

NEDVEDOVA, Zdena

Economical types of creches. Cesk. zdravot. 6 no.10:590-592 Oct 58.

1. Ministerstvo zdravotnictvi, odbor pece o zenu a dite.  
(CHILD WELFARE  
in Czech., new type of day nurseries (Cz))

NEDVETSKAYA, L.M.

Surgical therapy of pulmonary hemorrhage in suppurative processes of the lung. Sov. Med. 26 no.9:15-19 S '62.

(MIHA 17:4)

1. Is kliniki obshchey khirurgii (sav. - chlen-korrespondent AMN SSSR prof. V.I. Struchkov) i Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova i torakal'nogo ot-deleniya bol'nitsy "Medtsentrud" (glavnyy vrach A.N. Lobanova), Moskva.

STRENGTH OF THE...; PART II...; 1974, 1975.  
...problems of the...; ...of...  
...Gov. ...; ...  
...; ...