

PEYCH, Nikolay Nikolayevich; ~~DASHKOVA, Z.F.~~ redaktor; SERGOVSKIY, P.S.,  
redaktor; KOLBNIKOVA, A.P., tekhnicheskiy redaktor

[Increasing the productivity of a lumber-drying room] Povyshenie  
proisvoditel'nosti lesosushil'nykh kamer. Moskva, Goslesbumizdat,  
1954. 137 p. (MIRA 8:4)  
(Lumber--Drying)

SHCHUKIN, Ivan Aleksandrovich; SHIRSHOV, A. I., redaktor; DASHKOVA, Z. F.,  
redaktor; SHITS, V. P., tekhnicheskii redaktor

[Work practice of the Monzen lumbering organization] Opyt raboty  
Monsenskogo lespromkhozsa. Moskva, Goslesbumizdat, 1955. 21 p.  
(Vologda region--Lumbering) (MIRA 9:2)

FINKEL'SHTEYN, Sergey Maksimovich; ROZHKOVA, D.S., redaktor; DASHKOVA, Z.F.,  
redaktor; YERMAKOVA, Ye.A., tekhnicheskij redaktor.

[Maintenance of cutting tools for sawing timber] Ukhod za rezhushchimi  
instrumentami v lesopilenii. Moskva, Goslesbumizdat, 1955. 116 p.  
(Cutting tools) (Woodworking machinery) (MIRA 8:6)

SLUTSKIN, G.G., inzhener; TITKOV, G.G., redaktor; DASHKOVA, Z.F., redaktor;  
KOLESHNIKOVA, A.P., tekhnicheskii redaktor.

[Manual for the sawmill foreman] Spravochnik мастера лесосавада.  
Moskva, Goslesbuzisdat, 1955. 179 p. (MIRA 9:6)

1. Russia (1923- U.S.S.R.) Ministerstvo lesnoy promyshlennosti.  
(Sawmills)

*DASHKOVA, Z.F.*

GALOCHKIN, Nikolay Aleksandrovich; LADYZHENSKIY, R.M., dotsent, retsentsent;  
GOL'DSHTEYN, I.D., redaktor; DASHKOVA, Z.F., redaktor; KOLESHNIKOVA,  
A.P., tekhnicheskii redaktor ~~redaktor~~

[Ventilation of pulp and paper factories] Ventiliatsiia predpriatii  
tselliuloznobumazhnoi promyshlennosti. Moskva, Goslesbumizdat, 1955.  
222 p. (MLRA 8:11)  
(Ventilation) (Wood-using industries)

KULIKOV, Ivan Vasil'yevich, kandidat tekhnicheskikh nauk; CHULITSKIY, N.N.,  
professor, doktor tekhnicheskikh nauk, redakter; DASHKOVA, I.F.,  
redakter; SHITS, V.P., tekhnicheskiy redakter.

[Principles of interchangeability in the woodworking industry]  
Osnovy vsaimeneniya v derevebrabotke. Pod red. N.N.Chulitskego.  
Moskva, Goslesbumizdat, 1955, 286 p. (MLRA 9:5)  
(Wood working industries) (Interchangeable mechanism)

KOLESNIKOVA, T.A.; SAVEL'YEV, A.P.; BERDNIKOVA, L.I.; NEYAGLOV, A.V.;  
DASIKOVA, T.V.

Increasing the production of olefins and saturated gas  
hydrocarbons for petrochemical production. Trudy BashNII  
NP no.7:68-74 '64. (MIRA 17:9)

DASHKOVSKAYA, F. A.

"The Kinetics of Direct Esterification of Alcohols, 1, The Effect of Promoters on the Reaction Kinetics," Iz. Ak. Nauk SSSR, Otdel. Khim. Nauk, No 2, 1946.  
Institute of Organic Chemistry



DASHKOVSKAYA, I. A.

"The Effect of the Composition of Binary Catalysts on the Kinetics of  
the Reaction," Iz. Ak. Nauk SSSR, Otdel, Khim. Nauk, No 4, 1946.

Institute of Organic Chemistry, AS USSR

~~RYLINSKY~~, K.K., inzh.; ZORIN, M.I., inzh.-meliorator; DASHKOVSKAYA,  
L.T., rybovod; GUDYM, L.M.; KONOVALOV, D.N., rybovod;  
KOTIKOV, A.P., inzh.; ROZHKOVA, N., red.; PRIKHOD'KO, S.,  
red.; OLEJNIKOV, A., red.; ZLOBIN, M., tekhn. red.

[Fishery resources of Kazakhstan; a manual for fisher-  
men] Rybnye bogatstva Kazakhstana; spravochnik rybaka.  
Alma-Ata, Kazgosizdat, 1963. 262 p. (MIRA 17:2)

1. Glavnyy spetsialist otdela pishchevoy promyshlennosti  
Gosudarstvennogo Komiteta Soveta Ministrov Kazakhskoy SSR  
po koordinatsii nauchnykh i tekhnicheskikh rabot (for  
Gudym).

DASHKOVSKAYA, R. A.

USSR/Physics - Spectral analysis

Card 1/1 Pub. 43 - 33/62

Authors \*Dashkovskaya, R. A., and Kondilenko, I. I.

Title \*Spectral investigation of antimony salt solutions

Periodical \*Izv. AN SSSR. Ser. fiz. 18/6, 697-699, Nov-Dec 1954

Abstract \*The combined light diffusion spectra observed in aqueous  $SbCl_3$  solutions have indicated that the formation of  $SbCl_3$  in form of a trihedral pyramid is the nidus of absorption centers. The ions and molecules of the solvent oriented around the pyramid produce a deforming, preferably electrostatic effect, on the  $SbCl_3$  bond resulting in the weakening of the former and reduction in oscillation frequencies at an increased HCl concentration. The role of the hydrogen ion in the photochemical process is discussed. Three references: 1 French and 2 Indian (1929-1938). Tables; graph.

Institution : The T. G. Shevchenko State University, Kiev

Submitted : .....

DASHKOVSKAYA, R. A.

DASHKOVSKAYA, R. A. -- "Spectral Investigations of Solutions of Salts of Antimony Trichloride." Kiev State U imeni T. G. Shevchenko. Kiev, 1955. (Dissertation for the Degree of Candidate in Physicomathematical Sciences)

SO: Knizhnaya Letopis', No 1, 1956, pp 102-122, 124

DASHKOVSKAYA R. G.; KORDILENKO, I. I.

Absorption spectrum analysis of photochemical changes of antimony  
chloride salt solutions. Nauk.zap.Kiev.un. 15 no.5:53-60 '56.

(MLRA 10:7)

(Antimony chlorides--Spectra)

L 18852-65 EWT(1)/EWT(m)/EWP(t)/EEC(t)/EWP(b) Feb IJP(c)/AFWL/ASD(a)-5/  
AS(mp)-2/ESD/APGC(b)/SSD(c)/ESD(gs)/ESD(t) JD S/0181/64/006/008/2389/2392  
ACCESSION NR: AP4043358

AUTHORS: Gorban', I. S.; Dashkovskaya, R. A.

TITLE: Absorption spectrum and optical transitions in  $As_2S_3$  crystals <sup>21</sup> <sup>B</sup>

SOURCE: Fizika tverdogo tela, v. 6, no. 8, 1964, 2389-2392

TOPIC TAGS: arsenic sulfide, single crystal, level transition, light polarization, phonon, exciton, forbidden band, absorption spectrum

ABSTRACT: A study of the long-wavelength edge of the fundamental absorption band of  $As_2S_3$  single crystals at 90, 293 and 403K showed the existence of four regions for either of the two polarizations of light ( $E \parallel C, E \perp C$ ) incident normally on a mica-type cleavage plane. These regions (numbered in order of decreasing wavelength) exhibited sublinear (1 and 2) and linear (3 and 4) dependences of

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ACCESSION NR: AP4043358

the absorption coefficient on the frequency of the incident light. Regions 1 and 3 disappeared on cooling to 90K. It was concluded that regions 1 and 2 were due to indirect transitions to exciton states accompanied by phonon absorption and emission respectively, and regions 3 and 4 were due to indirect band-to-band transitions, also accompanied by phonon absorption and emission respectively. The energy of phonons taking part in these indirect transitions was found to be 0.04 eV, corresponding to a characteristic temperature of 465K. The exciton dissociation energies were found to be  $\epsilon_{||} \approx 0.14$  eV and  $\epsilon_{\perp} \approx 0.17$  eV. The forbidden band width decreased from 2.64 eV (for  $E \perp C$ ) and 2.57 eV (for  $E \parallel C$ ) at 90K to 2.365 eV (for  $E \parallel C$ ) and 2.355 eV (for  $E \perp C$ ). It was established that the dichroism of the absorption edge was not so much due to the dichroism of the forbidden band width as to the dependence of the absorption coefficient on the polarization of light. Orig. art. has: 1 figure, 2 formulas, and 1 table.

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L 18852-65

ACCESSION NR: AP4043358

2

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiev State University); Kiyevskiy tekhnologicheskii institut legkoy promy\*shlennosti (Kiev Technological Institute of Light Industry)

SUBMITTED: 24Feb64

ENCL: 00

SUB CODE: OP, SS

NR REP SOV: 005

OTHER: 005

Card 3/3



DASHKOVSKAYA, V.S.

Method of determination of the effect of the central nervous system  
of the excitability of the neuro-muscular system in the newborn.  
Pediatria, Moskva No.1:47 Jan-Feb 51. (CJML 20:6)

1. Of the Physiological Laboratory and of the Division for the New-  
born of the Institute of Obstetrics and Gynecology of the Ministry  
of Public Health USSR.

DASHKOVSKAYA, V.S.

First conditioned reactions in newborn in normal and in pathological conditions. Zh. vysshei nerv. deiat. 3 no.2:247-259 Mar-Apr 1953.  
(GLML 24:4)

1. Laboratory of Physiology and Department of the New Born of the Scientific-Research Institute of Obstetrics and Gynecology of the Ministry of Public Health USSR.

*Dobrotovskaya, V.S.*

BESPALOV, I.G., kandidat meditsinskikh nauk; DASHKOVSKAYA, V.S.:

Glutamic acid and its significance for the organism. *Pediatrilia*  
no.2:48-50 Mr-Apr '55. (MLRA 8:8)

1. Iz laboratorii aminokislot (zav.-I.G. Bepalov) Instituta  
psikhiatrii (dir. D.D. Fedotov) Ministerstva zdravookhraneniya  
SSSR.

(GLUTAMATES,  
pharmacol.)

DASHKOVSKAYA, V. S.

V S R o

✓ The use of glutamic acid in intracranial birth trauma in newborn. A. A. Benedikt and V. S. Dashkovskaya. *Pediatrics* 1959, No. 2, 60-4.--Administration of a teaspoonful of 1% soln. of glutamic acid 3 times daily prevented development of convulsions and asphyxia in newborn children with birth trauma of the cranial region. The drug also blocks the overstimulation of the nervous system at birth. G. M. Kosolapoff

DASHKOVSKAYA, V.S.

Functional state of the stomach following the formation of anastomosis between the portal vein and the inferior vena cava. Pat. fiziol. i eksp. terap. 9 no.3:59 My-Je '65.

(MIRA 18:9)

1. Ekperimental'naya laboratoriya (sav.-kand. med. nauk V.S. Dashkovskaya) Nauchno-issledovatel'skogo instituta imeni N.V. Sklifosovskogo, Moskva.

DASHKOVSKAYA, V.Y. [Dashkovs'ka, V.I.<sup>2</sup>], assistant; AZABEL', R.Yu.

Use of butadione in the compound treatment of children with  
rheumatism. Ped., akush. i gin. 22 no.6:13-14 '60. (MIRA 14:10)

1. Kafedra gospital'noy pediatrii (zaveduyushchiy - chlen-korrespondent  
AMN SSSR prof. O.M.Khokhol, direktor - dotsent I.P.Alekseyenko  
[Aleksieienko, I.P.]) Kiyevskogo ordena Trudovogo Krasnogo Znameni  
meditsinskogo instituta im. akademika Bogomol'tsa.  
(ANALGESICS) (RHEUMATIC FEVER)

\* ũ

*Name would start with F if romanized*

DASHKOVSKAYA, Z.F.

New tile material for floor coverings. Bum. 1 der. prom. no.3:37-39  
Jl-S '63. (MIRA 17:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny.

DASHKOVSKAYA, Z.F.; REBRIN, S.P., nauchn. red.; MIZINA, I.N.,  
red.

[Particle board (tyrsolit) from the finest wood waste]  
Drevesnye plity (tyrsolit) iz naibolee melkikh otkhodov  
drevesiny. Moskva, TSentr. nauchno-issl. in-t informatsii  
i tekhniko-ekon. issledovaniy po lesnoi, tselliulozno-  
bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu  
khoz., 1964. 31 p. (MIRA 17:12)



DASHKOVSKIY, A.F., kand. tekhn. nauk

Studying the process of fuming planed beechen plywood. Der. prom.  
7 no. 7:4-5 J1 '58. (MIRA 11:8)

(Plywood)

DASHKOVSKIY, A.F., kand.tekhn.nauk; DLIN, F.S., inzh.

Rapid cyclic drying of beechen parts. Der.prom. 7 no.11:3-4  
N' 58. (MIRA 11:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut melkhanicheskoy  
obrabotki drevesiny.  
(Beech--Drying)

DASHKOVSKIY, A.F., kand.tekhn.nauk; KONOZ, P.F., kand.sel'khoz.nauk;  
DLIN, F.S., inzh.

Studying the induction method of wood drying using currents of commercial frequency. Der.prom. 10 no.10:13-16 0 '61. (MIRA 14:9)

1. Ukrainakiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny.  
(Lumber--Drying) (Induction heating)

DASHKOVSKIY, A.F., kand. tekhn. nauk; DLIN, F.S.; FRIDMAN, S.A.,  
red.

[Correspondence seminar "Intensification of the processes  
of lumber drying"] Zaochnyi seminar "Intensifikatsiia  
protsessov sushki drevesiny." Kiev. Lektsiia 9. 1963. 57p.  
(MIRA 17:9)

1. Kiyevskiy dom nauchno-tekhnicheskoy propagandy.

DASHKOVSKIY, A.F., kand. tekhn. nauk; DLIN, F.S.

Drying wood with the combustion products of natural gas. Bum.  
i der. prom. no.1:32-34 Ja-Mr '63. (MIRA 16:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanicheskoy  
obrabotki drevesiny.  
(Lumber--Drying) (Gas, Natural)

DA:HKOVSKIY, A.F.

Intensifying the drying of timber at the enterprises of the Ukraine.  
Der. prom. 12 no.9:1-2 S '63. (MIRA 16:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny.

DASHKOVSKIY, A.F., kand. tekhn. nauk. [deceased]; DLIN, F.S.; BIIETSKIY, G.V.;  
DROZDOVSKIY, M.N.

Ways for the modernisation of drying rooms. Bum. i der. prom.  
no.1:39-41 Ja-Mr '65. (MIRA 18:10)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000509720020-6

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000509720020-6"



DASHKOVSKIY, A.I.; YEVSTYUKHIN, A.I.; SAVITSKIY, Ye.M.

Equipment for the measurement of internal friction in metals  
and alloys. Met. i metalloved. chist. met. no. 2:207-213  
'60. (MIRA 13:12)

(Internal friction--Measurement)  
(Measuring instruments)

DASHKOVSKIY, A.I.; SAVITSKIY, Ye.M.

Temperature relation of internal friction, modulus of normal  
elasticity and modulus of shear in zirconium, niobium and  
zirconium-niobium alloys. Met. i metalloved. chist. met.  
no. 2:214-223 '60. (MIRA 13:12)

(Zirconium--Thermal properties)

(Niobium--Thermal properties) (Phase rule and equilibrium)

DASHKOVSKIY, A.I.; YEVSTUKHIN, A.I.; SAVITSKIY, Ye.M.; SKOROV, D.M.

Temperature relation of internal friction and the shear modulus  
of uranium. Met. i metalloved. chist. met. no. 2:224-228 '60.  
(Uranium--Thermal properties) (MIRA 13:12)  
(Internal friction)

82282

S/089/60/009/01/05/011  
B014/B070

18.8200

AUTHORS: Dashkovskiy, A. I., Yevstyukhin, A. I., Savitskiy, Ye. M.,  
Skorov, D. M.

TITLE: Internal Friction of Uranium A

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 1, pp. 27 - 32

TEXT: The internal friction and, thus, the modulus of rigidity of uranium as dependent on temperature was measured by means of a relaxator which recorded the damping of the free torsional oscillations of a sample. A uranium wire of a length of 320 mm (diameter 0.98 mm) and a purity of 99.9% was used as a sample. The frequency of oscillations of the wire in a vacuum of  $5 \cdot 10^{-5}$  torr was  $\sim 2$ /sec. The rate of heating or cooling varied in the range  $5 - 0.5^{\circ}\text{C}/\text{min}$ . The accuracy of temperature measurement was  $\pm 1.5^{\circ}\text{C}$ . According to the three phases of uranium, the samples were annealed at 630, 645, 670, 720, 755, 768, 850, and  $960^{\circ}\text{C}$ . The course of the measured parameters is represented for the various temperatures in Figs. 1-5. The results of measurement lead to the

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82282

Internal Friction of Uranium

S/089/60/009/01/05/011  
B014/B070

following conclusions: (1) The bend in the internal friction curve in the temperature range 450 - 500°C is caused by the tenacity of the grain boundaries. This tenacity disappears after annealing in the  $\beta$ - and  $\gamma$ -phases. This is the result of the recrystallization of phases due to lower mobility of the boundaries. (2) In temperature changes, the polymorphous transformations of uranium are accompanied by an isothermal change in internal friction. The changes take place during heating as well as during cooling in both directions. (3) The most plastic  $\gamma$ -domain, which has a body-centered cubic lattice, is characterized by a high internal friction. The tetragonal  $\beta$ -modification which tends to brittleness, has the lowest internal friction. It is generally true that the internal friction is related directly to the crystal lattice and to its capability of plastic deformation. There are 5 figures and 13 references: 10 Soviet, 2 American, and 1 French. H

SUBMITTED: October 3, 1959

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18.8200 1045 1413 4016

30903  
S/180/61/000/005/015/018  
E021/E180

**AUTHORS:** Savitskiy, Ye.M., and Dashkovskiy, A.I. (Moscow)  
**TITLE:** Investigation of internal friction as a method of physico-chemical analysis of metallic alloys  
**PERIODICAL:** Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo. no.5, 1961. 96-100  
**TEXT:** Results are given of measurements of internal friction on several metals and binary alloys, in an attempt to establish a relationship between internal friction, temperature and composition. Internal friction was measured by the damping of free torsional vibrations of low amplitude and 1 - 5 c.p.s. frequency and by the damping of free bending vibrations with resonant frequency. Metals showing polymorphic modifications (iron, uranium, zirconium, titanium, lanthanum and strontium) were first investigated. At the transformation temperature, there was a reversible change in the level of internal friction. For all the metals investigated, the internal friction was higher in the hexagonal close packed modification than in the cubic face-centred  
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Investigation of internal friction... <sup>30903</sup> S/180/61/000/005/015/018  
E021/E180

or body-centred forms. The internal friction method is a sensitive way of determining the temperature of polymorphic transformations. The effect of temperature on binary systems was studied on zirconium-niobium and zirconium-hafnium alloys. The internal friction method can be used for determining the beginning and the end of transformations in the solid state. It is also sufficiently sensitive to use in determinations of the limits of solubility in the solid state. The dependence of internal friction on composition was investigated for Zr-Hf, Zr-Ti, Zr-Nb and Zr-Sn systems. In the regions of solid solutions, the internal friction decreased with increase in alloying component. Two-phase alloys had a much lower level of internal friction than the pure components and a linear relationship with the concentration of alloying components was found. Internal friction can also be used for investigations of the non-equilibrium state. Construction of kinetic curves of internal friction against time can be used for the study of processes such as phase transformations and recrystallisation. N.S. Kurnakov is mentioned in the article for his contributions in this field.

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Investigation of internal friction... S/180/61/000/005/015/018  
E021/E180

There are 6 figures and 12 references; 8 Soviet-bloc and  
4 non-Soviet-bloc. The English language references read as  
follows:

- Ref.3: C. Wert. Measurements on the Diffusion of Interstitial  
Atoms in FCC Lattices. J. Appl. Phys., 1950, v.21, No.11,  
1196.
- Ref.4: L.J. Dijkstra. Precipitation Phenomena in the Solid  
Solution of Nitrogen and Carbon in Alpha Iron below the  
Eutectoid Temperature. J. Metals, 1949, v.1, No.3, 352.
- Ref.5: S. Harper. Precipitation of Carbon and Nitrogen in Cold-  
Worked Alpha Iron. Phys. Rev., 1951, v.83, No.4, 709.

SUBMITTED: March 1, 1961

Card 3/3



DASHKOVSKIY, A.I.; SAVITSKIY, Ye.M.

Internal friction in strontium. Fiz. met. i metalloved. 11 no.5:811-  
812 My '61. (MIRA 14:5)  
(Internal friction) (Strontium)

Internal friction and modulus of...

S/137/62/000/009/C10/033  
A006/A101

change linearly depending upon the composition, increasing with higher percentage of Hf content. Curves of internal friction and  $Q$  are used for the plotting of a Zr-Hf phase diagram in the transition range of the solid state, which is a typical diagram with indefinite solubility.

V. Srednogorska

[Abstracter's note: Complete translation]

Card 2/2

Temperature dependence of internal friction...

is 0.218% and in  $\alpha \rightarrow \beta$ -transition of Ce it is 0.453%.

S/137/62/000/009/009/033  
A006/A101

A. Dashkovskiy

[Abstracter's note: Complete translation]

Card 2/2

S/755/61/000/003/008/027

AUTHORS: Barinov, I. P., Dashkovskiy, A. I., Yevstyukhin, A. I.

TITLE: The internal friction and shear modulus of iodide hafnium and of alloys of the hafnium-zirconium system.

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Metallurgiya i metallove-deniye chistykh metallov. no.3. 1961, 74-81.

TEXT: The paper describes an attempt to obtain inferential information on the phase transformations in alloys of the Zr-Hf system from a study of their temperature (T) curves of the internal friction, the shear modulus, and the linear expansion coefficient. The alloys tested comprised Hf with a 5% Zr impurity, Hf with 20, 50, and 70% Zr, and pure Zr. The alloys tested were prepared in the form of smooth rods (290 mm long) with a lengthwise uniform diam (2.7-2.9 mm), obtained by the iodide refining method. Microstructural studies revealed a single-phase structure and a fairly large grain size. The measurements were made by means of a vacuum torque pendulum at a frequency of about 3.6 cps; the decay of the oscillations was recorded photographically. The internal friction of Hf grows monotonously and almost linearly from room T to 600°C, then more steeply to an inflection point in the 650-800° region, finally yet more steeply and uneventfully to at least 1,250°C.

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The internal friction and shear modulus of iodide ... S/755/61/000/003/008/027

The shear modulus decreases linearly up to  $650^{\circ}\text{C}$ , beyond which point relaxation of the modulus is observed and a slight steepening of the curve leads to another nearly linear line segment to  $1,250^{\circ}$ . The inflection of the internal-friction curve in the  $650\text{-}800^{\circ}$  region is attributed to a viscous behavior of the grain boundaries. The  $80\% \text{Hf} - 20\% \text{Zr}$  alloy exhibits a near-linear internal-friction curve from room T to  $700^{\circ}$  (lower than the Hf curve; see Postnikov, V.S., Usp. fiz. n., v.96, no.1, 1958, 43). An inflection occurs in the  $800\text{-}1,000^{\circ}$  region, attributable to grain boundary viscosity. A steep increase follows to a maximum or step in the curve at  $1,200^{\circ}$  which may be the result of a transition from the  $\alpha$  solid solution into a two-phase region. The shear-modulus behavior of the alloy is similar to that of Hf. Curves are shown for the other alloys and for pure Zr which gives evidence of a grain-boundary maximum at about  $550^{\circ}\text{C}$  and a sharp maximum and subsequent drop at  $865^{\circ}$  due to  $\alpha - \beta$  transformation. The detail characteristics of each curve are discussed. The changes in the shear moduli in the phase-transformation region correlate well with the internal-friction curves. Inasmuch as the experimental T intervals were  $15\text{-}20^{\circ}\text{C}$ , the accuracy of the beginning and end of the  $\alpha - \beta$  transformation in the alloys are to be taken as being accurate within  $\pm 20^{\circ}\text{C}$ . The points obtained from the internal-friction, shear-modulus, and dilatometric curves, respectively, concur with good agreement to trace a phase diagram of the Zr-Hf system. The phase diagram is typical of a system with unlimited solubility; the

Card 2/3

The internal friction and shear modulus of iodide ... S/755/61/000/003/008/027

shear modulus of Hf is  $G = 5,250 \pm 500 \text{ kg/mm}^2$ , decreasing less with T than either Zr or the Zr-Hf alloys. The variation of the internal friction versus composition at room T in alloys of the Zr-Hf system follows a smooth paraboloid curve with a minimum in the region of 70% Hf. The linear expansion coefficient of alloys of the Zr-Hf system increases linearly with Hf content. There are 6 figures, 3 tables, and 10 references (4 Russian-language Soviet, 5 English-language, and 1 Russian translation of an English-language book; "The metallurgy of zirconium," B. Lustman and F. Kerze, Jr., eds., McGraw-Hill, 1955; Foreign Lit. Publ. House, Moscow, 1959).

ASSOCIATION: MIFI (Moscow Engineering Physics Institute).

Card 3/3

DASHKOVSKIY, A.I.

Comparative study of the behavior of internal friction in  
uranium and iron in connection with polymorphism. Met. i  
metalloved. chist. met. no.3:183-189 '61. (MIRA 15:6)  
(Iron--Metallography) (Uranium--Metallography)  
(Internal friction)

S/755/61/000/003/012/027

AUTHOR: Dashkovskiy, A.I.

TITLE: Comparative study of the behavior of the internal friction in uranium and iron with reference to polymorphic transformations.

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Metallurgiya i metallovedeniye chistykh metallov. no.3. 1961, 183-189.

TEXT: This paper is an extension of the author's earlier writings (Atomnaya energiya, v.9, no.1, 1960, 27; no.2 of the present sbornik, Atomizdat, 1960, 224) on the dependence of the internal friction (IF) of U on its crystalline lattice and, moreover, on the number of  $\alpha \rightleftharpoons \beta$  transformations previously undergone. Similar phenomena prevail in Fe (summary of findings by C. Boulanger from Rev. metallurgique, v.55, no.9, 1958, given). A general comparison between U and Fe data reveals the profound parallelism of the IF-vs.-crystalline-structure characteristics of the two metals. The present experimental investigation was focused on the IF in the region of the  $\alpha \rightleftharpoons \gamma$  transformation in Fe. 0.8-mm diam wire specimens, 320 mm long, were made of Fe with 0.02% C and 0.007% P. The IF was measured by the torque-pendulum method described in no.2 of the present sbornik, Atomizdat, 1960, 207. The specimens were cold-worked (99% plastic deformation) and vacuum-annealed for 1 hr at 830°. The IF tests were made during a warm-up from room T to 1,100°C and subsequent cooling to room T, with 7-8 successive cycles. The IF changes

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Comparative study of the behavior of the internal ... S/755/61/000/003/017/027

occurring during upward and downward passage through the  $\alpha \rightleftharpoons \gamma$  transformation were found to be reversible. Thus the IF of Fe is also found to be closely linked to the interatomic interaction, the character of the interatomic coupling, the frequency spectrum, and the peculiarities of the vibration of the atoms in the crystalline lattice. It is noted that both in Fe and in U all polymorphic transformations accompanied by a reduction in IF exhibit an increase in shear modulus (and conversely). Clear-cut IF data are obtainable only on perfect single crystals, since in polycrystalline substances grain-boundary phenomena come into being, also. Numerical examples on the effect of the grain-boundary viscosity are adduced. The number-of-transformations effect on the IF is illustrated for the IF of  $\alpha$ -Fe and  $\beta$ -Fe. Conclusions: (1) The IF level of a given modification of a polymorphic metal is determined by the type of crystalline lattice and the characteristics of the metal; (2) an "additional IF," most sharply defined at elevated T, is a consequence of various kinds of crystalline-structure imperfections, primarily grain boundaries and insoluble impurities; (3) changes in IF upon polymorphic transformations are linked to changes in the type of crystalline lattice. Imperfection-type "additional IF" can alter the magnitude of the change in IF, but cannot alter the character of that change as such. There are 7 figures and 6 references from 4 sources (2 Russian-language Soviet, 1 Russian translation from a presumably English-language original, and 1 French).

ASSOCIATION: MIFI (Moscow Engineering Physics Institute).

Card 2/2

S/755/61/000/003/020/027

AUTHORS: Dashkovskiy, A. I., Savitskiy, Ye. M.

TITLE: The temperature dependence of the internal friction, shear modulus, and linear expansion of lanthanum and cerium.

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Metallurgiya i metallove-deniyе chistykh metallov. no.3. 1961, 196-202.

TEXT: The paper describes measurements of the T dependence of the internal friction (IF) and the shear modulus (G) of La and Ce up to 600-670°C and the value of the G at room T. Dilatometric investigation of these metals is performed up to 700-730°C. The La specimens tested contained 0.8% Nd, 1% Pr, and less than  $3 \cdot 10^{-4}\%$  Pb, Cd, and Bi. The Ce contained 0.75% Nd, 0.75% Pr, 0.01% Fe, and less than  $1 \cdot 10^{-4}\%$  Pb. The specimens were prepared by extrusion on a universal equipment (cf. Savitskiy, Ye. M., Zavodsk. laboratoriya, v.16, no.11, 1950) at T 350-400°C in an atmosphere of Ar. O content in the specimens was less than 0.01%. Even and smooth rods 3.5-mm diam and up to 300 mm long were prepared. Following anneal, the measurements were performed on the equipment described by the authors et al. in no.2 of this sbornik, Atomizdat, 1960, 207. Max. shear deformation at the specimen surface:  $10^{-5}$ ; the strain due to the tensile load applied by the weight of the oscillatory system is less than  $10^{-5}$ . Test frequency: 4.5 cps. Rate of heating and

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The temperature dependence of the internal ...

S/755/61/000/003/020/027

cooling:  $2.5^{\circ}\text{C}/\text{min}$ . Dilatometric measurements were performed in a quartz vacuum dilatometer with a pointer-type indicator (0.001-mm value of one division) at a heating and cooling rate of  $3.5^{\circ}\text{C}/\text{min}$ . In the IF curve of La with heating an almost linear increase is observed to  $150^{\circ}\text{C}$ , then a sharper increase to a peak at  $340^{\circ}\text{C}$ , a sharp drop to about  $370^{\circ}$ , and a further steep rise. On cooling, the same curve is nearly reproduced, but with the sharp intermediate peak at about  $325^{\circ}$ . This peaking, together with a coincident noticeable change in G and in the specimen volume is undoubtedly attributable to an allotropic  $\alpha \rightleftharpoons \beta$  transformation. In Ce the IF curve for heating of 1-hr  $600^{\circ}$ -annealed Ce is appx. linear to  $250^{\circ}\text{C}$ , then a steeper rise, a flat spot in the  $350\text{-}450^{\circ}$  region, and an increasingly steep rise beyond  $500^{\circ}$ . The cooling curve reproduces the heating curve, but remains slightly higher. Ce annealed for 20 min at  $500^{\circ}\text{C}$  exhibits a pronounced maximum at  $380^{\circ}\text{C}$ . This phenomenon is attributed to viscous grain-boundary behavior, which is minimized by the grain-size growth incident to high-T or long-time anneal. The G curve of Ce is appx. linear to  $400^{\circ}$ , whereupon G relaxation sets in, attributable to grain-boundary viscosity. At room T, the G of La was found to be  $1,480 \pm 50 \text{ kg}/\text{mm}^2$ , that of Ce  $1,350 \pm 50 \text{ kg}/\text{mm}^2$ . La expands about linearly to  $325^{\circ}\text{C}$ , at a rate of about  $5.45 \cdot 10^{-6}$ . From  $325$  to  $375^{\circ}$  the  $\alpha \rightarrow \beta$ -La transformation results in a volumetric contraction of 0.218%. The further dilation of the  $\beta$ -La is linear, at a rate of  $9.56 \cdot 10^{-6}$ , until at  $700^{\circ}\text{C}$  excessive plasticity interferes with the experiment. Upon cooling, the  $\beta \rightarrow \alpha$  transformation is encountered in the  $300\text{-}250^{\circ}\text{C}$  T interval (lower with  
Card 2/3

The temperature dependence of the internal ...

S/755/61/000/003/020/027

greater cooling rates). Ce dilates linearly up to  $650^{\circ}\text{C}$  at a rate of  $9.75 \cdot 10^{-6}$ , attains a plateau from  $650-700^{\circ}$ , and shrinks by 0.453% from  $700-720^{\circ}\text{C}$ . The hysteresis observed during cooling leads to a minimum at about  $600^{\circ}$ , a peak near  $550^{\circ}$ , and linear contraction below  $550^{\circ}$ . These figures concur fundamentally with extant literature data (cf., e.g., Trombe, F., Fox, M., C.R. Acad. sci., v.217, 1943, 501). It may be concluded that the  $\alpha \rightarrow \beta$  -transformation interval of La in heating is  $325-375^{\circ}$ , in cooling as low as  $250-200^{\circ}$ , depending appreciably on the rate of cooling (to a minor degree on the rate of heating, also). There are 5 figures, and 8 references (3 Russian-language Soviet, 2 Russian-language translations of an English-language rare-earth paper by F. H. Spedding, and A. H. Daane, circa 1953-54, and one by Smith, K. Carlson, and Spedding, circa 1954-55, 2 English-language and 1 presumably French-language papers).

ASSOCIATION: MIFI (Moscow Engineering Physics Institute).

Card 3/3

ACCESSION NR: AT4005958

S/2755/63/000/004/0041/0046

AUTHOR: Dashkovskiy, A. I.; Semenikhin, A. N.; Gruzin, P. L.

TITLE: Internal friction and Young's modulus of cold-worked zirconium

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Metallurgiya i metallovedeniya chisty\*kh metallov, no. 4, 1963, 41-46

TOPIC TAGS: zirconium, zirconium internal friction, Young modulus, Borodini peak, Kester effect, annealed zirconium, cold worked zirconium

ABSTRACT: At -60 to -70C, 99.8% pure iodide zirconium cylinders (4 x 5 x 100 mm) showed marked relaxation of Young's modulus, accompanied by a peak (Borodini peak) in the values for internal friction. Various parameters influencing the height and location of the Borodini peak and Young's modulus were found. Thus, annealing of cold-worked specimens moves the Borodini peak toward lower temperatures; the degree of cold working influences peak height; annealed specimens of micrograin structure show a higher peak of internal friction and lesser dislocation of Young's modulus than specimens with coarse grain; alloying elements markedly decrease the peak and 1% Nb or 1% Th eliminate the peak; irradiation at  $10^{16}$  neutrons/cm<sup>2</sup> markedly decreases the peak. A relationship

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ACCESSION NR: AT4005958

between internal friction, activation energy of relaxation and temperature is derived. Orig. art. has: 4 graphs, 1 schematic and 3 formulas.

ASSOCIATION: Inzhenerno-fizicheskiy institut, Moscow  
(Institute of Engineering Physics)

SUBMITTED: 00

DATE ACQ: 17Jan64

ENCL: 00

SUB CODE: MM

NO REF SOV: 001

OTHER: 006

Card 2/2

ACCESSION NR: AT4005967

S/2755/63/000/004/0160/0174

AUTHOR: Dashkovskiy, A. I.; Rosnov, A. N.; Bychkov, Yu. F.; Laptev, I. D.

TITLE: Rupture strength and internal friction of SAP alloys and effect of thermal cycles on their properties

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Metallurgiya i metallovedeniye chistykh metallov, no. 4, 1953, 160-174

TOPIC TAGS: SAP alloy, SAP-1 alloy, SAP-2 alloy, SAP alloy property, SAP alloy heat resistance, SAP alloy internal friction, SAP alloy bar, SAP alloy sheet

ABSTRACT: The effect of cyclic temperature changes on the properties of SAP-1 and SAP-2 alloys containing  $Al_2O_3$  and Fe and of commercial grade aluminum have been investigated. The average changes in temperature for sheet specimens were 100 degrees per minute during heating and 1000 degrees per second during water quenching. For rod specimens the corresponding values were 60 degrees per minute during heating and 600 degrees per second during hardening. The exposure time at the maximum temperature of the cycle was 10-40 minutes. From 550 C on up cyclic thermal treatment markedly shortened the lengths of the specimens and increased their cross sections at the maximum temperature of the cycle. As a result of

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ACCESSION NR: AT4005967

this treatment, the SAP alloys became increasingly brittle. Also, the rupture strength and ductility decreased. In the temperature interval up to 500 C the properties of the alloys remained stable. The SAP alloy sheet, which was rolled from briquets sintered in a vacuum at 700 C for two hours, showed higher ductility and a lower rupture strength than standard SAP and did not develop blisters even during thermal treatment up to 600 C. SAP-1 of the standard type has a higher heat resistance than other alloys. The prolonged stress rupture strength (up to 100 hours) was determined to be 5.5-7.5 kg/mm<sup>2</sup> at 375 C and 4.0-6.5 kg/mm<sup>2</sup> at 450 C. SAP-1 with a fine grain structure in the unrecrystallized state shows maximal internal friction. The location on the temperature curve depends on the size of the grain and the content of the secondary, finely dispersed, phase of Al<sub>2</sub>O<sub>3</sub> in the aluminum. Orig. art. has: 4 tables and 9 figures.

ASSOCIATION: Inzhenerno-fizicheskiy institut, Moscow (Institute of Engineering Physics)

SUBMITTED: 00

DATE ACQ: 17Jan64

ENCL: 00

SUB CODE: MA, ML

NO REF SOV: 006

OTHER: 002

Card 2/2



*DASHKOVSKIY, D.K.*  
DASHKOVSKIY, D.K. (Leningrad).

Mathematical processing of experimentation results by students.  
Mat. v shkole no.2:36-39 Mr-Apr '58. (MIRA 11:2)  
(Mathematics--Study and teaching)

DASHKOVSKIY, D.K., red.; VIKULINA, E.K., red.; TARASOVA, V.V.,  
tekh. red.

[Effectiveness of teaching mathematics in evening (staggered)  
schools] Ob effektivnosti prepodavaniia matematiki v vechernei  
(smennoi) shkole. Pod red. D.K. Dashkovskogo. Moskva, Izd-vo  
Akad. pedagog. nauk RSFSR, 1962. 119 p. (MIRA 15:12)

1. Akademiya pedagogicheskikh nauk RSFSR. Moscow. Institut ve-  
chernikh (smennykh) i zaochnykh srednikh shkol. 2. Institut  
vechernikh (smennykh) i zaochnykh srednikh shkol, Leningrad (for  
Dashkovskiy).

(Mathematics--Study and teaching)

DASHKOVSKIY, Dmitriy Kalistratovich; KOPTEKOVA, L.A., red.;  
POLUKARFOVA, Ye.K., tekhn. red.

[Extracurricular studies by pupils of grades 9 to 11 in  
a mathematics course] O samostoiatel'noi deiatel'nosti  
uchashchikhsia 9-11 klassov v usvoenii kursa matematiki.  
Moskva, Izd-vo APN RSFSR, 1963. 41 p. (MIRA 16:7)  
(Mathematics—Study and teaching)

GUBIN, Anatoliy Fedorovich; DASHKOVSKIY, David Samoylovich;  
FROLOVA, M.P., red.; KAPRALOVA, A.A., tekhn. red.

[Problem in the journal-voucher accounting on state farms] Zadacha po bukhgalterskomu uchetu v sovkhozakh po zhurnal'no-ordernoi forme schetovodstva. Moskva, Gosstatizdat, 1963. 67 p. (MIRA 16:10)  
(State farms--Accounting--Problems, exercises, etc.)

DASHKOVSKIY, Solomon Aronovich; MISHCHENKO, L., red; POPOVA, T.,  
tekhn. red.

[Chemistry, equipment, materials; role of chemicalization  
in the creation of the material and technical foundations  
of communism] Khimiia, tekhnika, materialy; znachenie khi-  
mizatsii v sozdani material'no-tekhniceskoi bazy kom-  
munizma. Krasnoiarsk, Krasnoiarskoe knizhnoe izd-vo, 1963. 67 p.  
(MIRA 17:3)

DASHKOVSKIY, V.E.

Determining the minute volume of the heart by means of catheterization in acquired heart defects. Vrach.delo no.8:60-63 Ag '62.

(MIRA 15:11)

1. Kafedra grudnoy khirurgii (zav. - chlen-korrespondent AMN SSSR, prof. N.M.Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey.

(BLOOD VOLUME)

(CARDIAC CATHETERIZATION)

(HEART--DISEASES)

DASHKOVSKIY, V.E. (Kiyev, ul. Chkalova, d.32,kv.9)

Development of a second barrier in mitral defects. Grud.  
khir. 4 no.6:22-25 N-D'62. (MIRA 16:10)

1. Iz kafedry grudnoy khirurgii (zav. - chlen-korrespondent  
AMN SSSR prof. N.M. Amosov) Kiyevskogo instituta usovershen-  
stvovaniya vrachey (rektor - dotsent M.N.Umovist)  
(MITRAL VALVE-DISEASES)  
(PULMONARY CIRCULATION)

DASHKOVSKIY, V.E.

Blood gases and some hemodynamic indices in mitral stenosis.  
Vrach.delo no.1:40-43 Ja '63. (MIRA 16:2)

1. Kafedra torakal'noy khirurgii (zav. - chlen-korrespondent  
AMN SSSR, prof. N.M. Amosov) Kiyevakogo instituta usovershenst-  
vovaniya vrachey.

(MITRAL VALVE--DISEASES) (BLOOD, GASES IN)  
(BLOOD--CIRCULATION)



DASHKOVSKIY, V.E.

External respiration in mitral stenosis. Kardiologiya 5 no.2:  
18-23 '63 (MIRA 17:2)

1. Iz kafedry grudnoy khirurgii ( zav. - chlen-korrespondent  
AMN SSSR prof. N.M.Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey ( rektor - dotsent M.N.Umovist).

DASHKOVSKIY, V.E., kand. med. nauk

Method of determining the cardiac output in patients with  
mitral defects. Vrach. delo no.2:140-141 P'64

(MIRA 17:4)

1. Klinika grudnoy khirurgii ( zav. - chlen-korrespondent AMN  
SSSR, prof. N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey.

SOKOLOV, A., prof.; DASHLUTI, M.S. et al

Effect of the post-mortem changes in meat on its keeping quality.  
Mias. ind. SSSR 34 no.4:51-52 '63. (MIRA 16:10)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy  
promyshlennosti.

DASHNIANI, N.F.

PHASE I BOOK EXPLOITATION

SOV/5277

Akademiya nauk Gruzinskoy SSR. Institut prikladnoy khimii i elektrotekhniki.

Trudy, t. 1 (Academy of Sciences of the Georgian SSR. Institute of Applied Chemistry and Electrochemistry. Transactions) v.1. Tiflis, 1960. 186 p. Errata slip inserted.

Personalities cannot be established in Georgian writing.

**PURPOSE:** This collection of articles is intended for mineralogists, metallurgists, and mining specialists.

**COVERAGE:** The collection contains articles concerning recent research on methods for treating antimony- and arsenic-bearing ores and carbonate ores of manganese. Research on the electrochemical properties of certain ores and their electrodeposition is also discussed. The collection includes

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Institute of Applied Chemistry (Cont.)

SOV/5277

studies on the corrosion and electrical properties of certain alloys, studies of the properties of certain cements and cement components, and studies of certain phases of the cement production process. The following personalities are mentioned: Professor N. A. Figuróvskiy and his scientific assistant T. B. Gavrilova (p. 118, bottom); R. I. Agladze, Academician, AN GSSR (AS Georgian SSR) (p. 150); S. D. Dzhaparidze and N. I. Lagidze (p. 171). The articles which are written in Georgian are followed by a resumé in Russian. References accompany each article.

TABLE OF CONTENTS:

- 1. Kakabadze, V. [Printed in Georgian] 3
  - 2. Agladze, R. I., and V. N. Gaprindashvili. Hydrometallurgical Processing of Antimony Ores From the Zopkhitskiy Deposit 49
- Card ~~2/5~~

1. Institute of Applied Chemistry (Cont.) SOV/5277
3. Topchiashvili, L. I. Solubility of the Chemical Elements in Manganese 51
  4. Berikashvili, I. G. Anodic Polarization of Ferromanganese in Alkali Solutions 70
  5. Dzhaparidze, L. N. , and D. G. Otiashvili. Electrochemical Properties of a Manganese Electrode in Alkali Electrolytes 86
  6. Mokhov, V. N. , and L. I. Topchiashvili. Electrode Potentials of Alloys of the Manganese-Copper-Nickel System 87
  7. Mokhov, V. M. , and L. I. Topchiashvili. Corrosion of a High-Resistance Manganese-Base Alloy 95
  8. Dashniani, N. F. Production of Anhydrous Manganese Chloride 111

Card ~~3/5~~

DASHNIANI, N.E.

Preparation of anhydrous manganese chloride. Trudy Inst. prikl.  
khim. i elektrokhim. AN Gruz. SSR no. 1:111-115 '60.

(MIRA 14:2)

(Manganese chloride)

L 10259-66 EWP(m)/EWP(t)/EWP(h) IJP(c) JD/JG

ACC NR: AP5026785

SOURCE CODE: UR/0286/65/000/017/0070/0070

INVENTOR: Dashniani, N. F.; Avaliani, A. Sh.

27  
23

ORG: none

TITLE: Method of obtaining borides of metals. Class 40, No. 174370

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 70

TOPIC TAGS: boride, metal, *inorganic* synthesis, electrolysis

ABSTRACT: This Author Certificate introduces a method of synthesizing metal borides by electrolysis of a boron-containing, fused salt bath with a graphite anode and a metallic cathode at 1000C. To simplify the process and increase the yield, the salt bath consists of a mixture of barium chloride, barium oxide and boron oxide and electrolysis is performed with a current at which the counter electromotive force does not exceed 0.8-1 v. A variant of the above method is presented in which the proportion of barium oxide to boron oxide is 1:055 and the quantity of barium oxide does not exceed 30% of barium chloride. [ND]

SUB CODE: 07, // / SUBM DATE: 19Dec62/ ATD PRESS: 4/60

OC  
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UDC: 541.135.3:661.655



TAVADZE, F.N.; LASHKHI, T.A.; DASHNIANI, T.S.

Irreversible electrode potentials of different materials in  
champagne. Soob. AN Gruz. SSR 25 no. 3:311-318 S '60.  
(MIRA 14:1)

1. Akademiya nauk Gruzinskoy SSR, Institut metallurgii, Tbilisi.
2. Chlen-korrespondent AN Gruzinskoy SSR (for Tavadze).  
(Metals--Electric properties)

TAVADZE, F.N.; LASHKHI, T.A.; DASHNIANI, T.S.

Changes in certain characteristics of champagne related to the corrosion of different materials in it. Soob. An Gruz. SSR 25 no. 41433-440 0 '60. (MIRA 14:1)

1. Akademiya nauk Gruzinskoy SSR, Institut metallurgii, Tbilisi.
2. Chlen-korrespondent Akademii (for Tavadze).  
(Champagne (Wine)) (Corrosion and anticorrosives)

39508  
S/123/62/000/014/002/020  
A004/A101

18.1235  
18.1275

AUTHORS:

Tavadze, F. N., Mandzhgaladze, S. N., Tskitishvili, M. D., Dashniani, T. S., Lordkipanidze, I. N.

TITLE:

The effect of small niobium, molybdenum, tungsten, titanium and aluminum additions on the corrosion resistance of chrome-manganese alloys

PERIODICAL:

Referativnyy zhurnal, Mashinostroyeniye, no. 14, 1962, 20, abstract 14A121 ("Tr. In-ta metallurgii. AN GruzSSR", 1961, v. 11, 177 - 190)

TEXT:

The authors investigated the effect of additions of Nb (0 - 0.65 and 3.5%), Mo (0 - 0.31 and 1.25%), W (0 - 4.21%), Ti (0 - 0.67%) and Al (0 - 1.52 and 4.72%) on the corrosion of alloys of the Fe-Cr-Mn-C-Si system in 5% H<sub>2</sub>SO<sub>4</sub> and NaCl solutions. They come to the conclusion that Nb, Ti and Al improve the corrosion resistance of Cr-Mn steels and cast iron. Mo (0.09 - 1.25%) improves the corrosion resistance of steel, but reduces that of cast iron with 15% Cr. W deteriorates the corrosion resistance of Cr-Mn cast iron in a 5% H<sub>2</sub>SO<sub>4</sub> solution. A steel composition was found which is corrosion-resistant in a 5% H<sub>2</sub>SO<sub>4</sub> solution

X

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The effect of small...

S/123/62/000/014/002/020  
A004/A101

(0.8% C, 25.6% Cr, 17% Mn, 1.1% Si, 0.2 - 0.3% Mo). There are 14 references.

[Abstracter's note: Complete translation]

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Corrosion of new ...

S/598/62/000/007/035/040  
D217/D307

specimens were then removed, cleaned and weighed, and the acid solutions containing the dissolved metal ions, chemically analyzed. It was found that at room temperature the alloys are completely resistant to HCl and HNO<sub>3</sub> at all concentrations, and to H<sub>2</sub>SO<sub>4</sub> of up to 15% concentration. They also resist the action of aqua regia and 30% H<sub>3</sub>PO<sub>4</sub> at that temperature. Their resistance to boiling HCl is comparable with that of the steel 1X18H9T (1Kh18N9T) and to boiling H<sub>2</sub>SO<sub>4</sub> with that of Pb. They possess a better resistance to boiling HNO<sub>3</sub> than the above steel, but HF rapidly attacks them. The corrosion products of the above alloys consist essentially of Ti and Al, the quantity of the latter being proportional to its content in the alloy. Besides, small quantities of Si and Fe go into solution. Chromium changes to soluble corrosion products only in HCl. The above alloys can be recommended for the manufacture of plant for the chemical industry, designed for service in contact with various acids. There are 7 figures and 6 tables. ✓

Card 2/2

S/598/62/000/007/034/040  
D217/D307

12.12.85

AUTHORS: Tavadze, F. N., Mandzhgaladze, S. N., Dashniani, T. S.  
and Lordkipanidze, I. N.

TITLE: Corrosion resistance of new titanium alloys in a number  
of industrial solutions

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego  
splayy. no. 7, Moscow, 1962. Metallokhimiya i novyye  
splayy, 246-252

TEXT: The corrosion resistance of new Ti alloys AT3(AT3), AT4,  
AT6 and AT8 was tested under various industrial conditions at the  
Institut metallurgii AN GruzSSR (Institute of Metallurgy, AS GSSR)  
during the last few years. In this work, the authors extend cor-  
rosion testing of these alloys to solutions encountered in the  
food industry, beneficiation plant and to tartaric acid solutions. ✓  
It was found that the alloys resist the following solutions asso-  
ciated with the food industry: sweet, dry and strong wines, canned

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S/598/62/Q00/007/036/040  
D217/D307

*1 p. 1285*  
AUTHORS: Tavadze, F. N., Mandzhgaladze, S. N., Dashniani, T. S.  
and Lordkipanidze, I. N.

TITLE: Corrosion of the titanium alloys AT3(AT3), AT4, AT6 and  
AT8 in waters of various compositions and in the atmo-  
sphere

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego  
splay. no. 7, Moscow, 1962. Metallokhimiya i novyye  
splay, 263-273

TEXT: Tests were carried out in distilled and in tap water at 20,  
100 and 170°C. The tests at 170°C corresponded to a pressure of ap-  
proximately 10 atm, and hence they had to be carried out in an  
autoclave. Besides, Ti and its alloys, together with other metals,  
were subjected to field tests in mineral waters and their vapors.  
In order to study the kinetics of the electrode processes and to  
obtain data on the possibility of using these alloys in contact  
with other metals, the irreversible electrode potentials were mea-  
- ✓B

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Corrosion of the titanium ...

S/598/62/000/007/036/040  
D217/D307

sured and polarization curves plotted. A series of corrosion tests of the Ti alloys under various atmospheric conditions was also carried out. It was found that AT3, AT4, AT6, AT6<sub>1</sub>, AT8, AT8<sub>1</sub>, and AT10 possess a good resistance to distilled water at room temperature, and to tap water at 100 and 170°C. The above alloys are resistant to mineral waters of the Borzhomskiy ore deposits in 5% NaCl solution. Their resistance to waters of various compositions is due to inhibition of the anode reactions. Titanium and its α-base alloys will be cathodic to all metals, except Ni and Ag, in 0.5 N NaCl solution, and will cause rapid destruction of the anodes. After 5000 hours' exposure to atmospheres containing H<sub>2</sub>S, nitric oxides, SO<sub>2</sub>, ammonia, carbonic acid and other gases, polished alloys retain their reflective properties. The corrosion resistance of AT3 and AT4 under most atmospheric conditions is superior to that of the other alloys, and they are recommended as a material for memorials and decorative articles designed for service in industrial atmospheres and under tropical conditions. There are 3 figures and 8 tables.

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TAVADZE, F.N.; MANDZHIGALADZE, S.N.; NABICHVRISHVILI, M.A.; DASHNIANI, T.S.;  
LORDKIPANIDZE, I.N.

Chemical properties of cast iron in the system iron - chromium -  
nickel - silicon - carbon. Trudy Inst.met. AN Gruz. SSR 12:137-144  
'62. (MIRA 15:12)  
(Cast iron—Thermal properties) (Corrosion and anticorrosives)

ACCESSION NR: AT4007035

AUTHOR: Tavadze, F. N.; Mandzhgaladze, S. N.; Lordkipanidze, I. N.; Dashniani, T.  
S.

S/2598/63/000/010/0151/0153

TITLE: Corrosion resistance of titanium alloys to media used in the pharmaceutical Industry

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavyt, no. 10, 1963. Issledovaniya titanovykh splavov, 151-153

TOPIC TAGS: titanium alloy, VT-1 titanium, OT-4 titanium alloy, OT-40 titanium alloy, AT-3 titanium alloy, AT-4 titanium alloy, AT-6 titanium alloy, AT-8 titanium alloy, titanium alloy corrosion

ABSTRACT: On the initiative of the Tbilisskiy khimiko-farmatsevticheskiy zavod Sovnarkhoza GSSR (Tiflis Chemo-Pharmaceutical Plant, Sovnarkhoza Georgian SSR), the authors studied the corrosion resistance of the Ti alloys VT-1, AT-3, AT-4, AT-6, AT-8, OT-4 and OT-40 in a number of plant extracts and infusions, tincture of iodine and aqueous solutions of tannic and gallic acid, in comparison with that of stainless steel 1Kh18N9T (E1533), Cu, tinned Cu and Ni. Of these media, tincture of iodine was found to be the most corrosive. The Ti alloys of the AT and OT class were distinguished by high corrosion resistance in all media. Thus, in tinc-

ACCESSION NR: AT4007035

ture of iodine and most plant extracts; the corrosion resistance of Ti alloys other than VT-1 was 10-15 times as high as that of tinned Cu. In tannic or gallic acid, the AT alloys were 90 times as resistant as alloy VT-1, 220 times as resistant as stainless steel and 300 times as resistant as tinned Cu. Analysis of the solution after exposure of the OT alloys to tannic acid revealed leaching out of Mn and Fe. These findings were confirmed by kinetic studies in aqueous tannic acid and tincture of Convalaria malalis, which showed that the corrosion rate of stainless steel, Ni, Cu and tinned Cu increased rapidly with time, while that of the AT alloys remained quite low. Orig. art. has: 4 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute, AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IS

NO REF SOV: 000

OTHER: 000

S/808/61/011/000/004/006

AUTHORS: Tavadze, F.N., Mandzhgaladze, S.N., Tskitishvili, M.D.,  
Dashniani, T.S., Lordkipanidze, I.N.

TITLE: The effect of small additions of Niobium, Molybdenum, Tungsten,  
Titanium, and Aluminum on the corrosion resistance of Chrome-  
Manganese alloys.

SOURCE: Akademiya nauk Gruzinskoy SSR. Institut metallurgii. Trudy, v. 11,  
1961, 177-190.

TEXT: The paper describes an experimental investigation of the effect obtained  
by inoculation and alloying with Nb, Ti, Mo, W, and Al on the corrosion resistance  
of alloys of the Fe-Cr-Mn-C-Si system. The alloys subjected to inoculation and  
alloying were the following: (a) Cast iron containing 25% Cr, 15% Mn, 1.8% Si,  
2.2% C; (b) cast iron containing 15% Cr, 15% Mn, 2.4% Si, 2.2% C; (c) steel con-  
taining 25% Cr, 15% Mn, 1.3% Si, and 0.8% C. The additions introduced are tabu-  
lated in 5 tables. Corrosion tests were made in 5% H<sub>2</sub>SO<sub>4</sub> and in a 5% solution of  
NaCl. The results of the corrosion tests are shown in the form of tables and graphs.  
The graphs show the % addition along the x-axis and either the corrosion rate in a  
NaCl solution or the amount of H emitted by the specimen in the acid along the y-axis.

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The effect of small additions of Niobium . . . .

S/806/61/011/000/004/006

The alloys tested had been heat-treated as follows: The steel by a low-T anneal at 700° and 750°C, the cast iron with a high-T stepwise anneal at T from 1,350 to 360°C (sic!). It was found that Nb, Ti, and Al improved the corrosion resistance of Cr-Mn steels and cast irons. The introduction of Mo (0.09-1.25%) evokes a sharp improvement of the corrosion resistance of Cr-Mn steel and an impairment of the corrosion resistance in Cr and Cr-Mn cast irons with 15% Cr. An addition of W (0.13-4.25%) impairs the corrosion resistance of Cr-Mn cast irons in a 5% solution of H<sub>2</sub>SO<sub>4</sub>. The findings of the investigation resulted in the making of a steel which is completely resistant to a 5% solution of H<sub>2</sub>SO<sub>4</sub> (composition: 25.6% Cr, 17% Mn, 1.1% Si, 0.8% C, 0.2-0.3% Mo). There are 14 figures, 5 tables and 14 references (13 Russian-language Soviet references and a Russian translation of F.N. Speller's "Corrosion, cause and prevention," 3d ed., New York, McGraw-Hill, 1951).

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ACCESSION NR: AT4007038  
AUTHOR: Tavadze, F. N.; Mandzhgaladze, S. N.; Dashniani, T. S.; Lordkipanidze, I. N.; Tavadze, L. F.  
TITLE: Electrochemical and corrosion behavior of alloys of the titanium aluminum system

S/2598/63/000/010/0176/0178

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavy, no. 10, 1963. Issledovaniya titanovykh splavov, 176-178

TOPIC TAGS: titanium aluminum alloy, titanium aluminum alloy corrosion, titanium alloy corrosion, titanium aluminum system, titanium alloy, Ti sub 3 Al, Ti sub 2 Al, titanium alloy electrochemical property

ABSTRACT: In order to correct certain deficiencies and contradictions in the literature, the authors studied the corrosion resistance and electrochemical potential of 19 Ti-Al alloys with Al contents of 0.5-38.5% by weight. Alloy specimens were heated to 900C for 100 hrs., then at 800C for 200 hrs. and 700C for 100 hrs. before cooling to room temperature and exposure to 40% H<sub>2</sub>SO<sub>4</sub>, 60% HCl, 5% HNO<sub>3</sub> or 0.5N NaCl. Corrosion was measured by volumetric or gravimetric methods. As shown by Fig. 1 in the Enclosure, these alloys are generally corrosion resistant, especially in HNO<sub>3</sub>, in which there is a single corrosion maximum at an Al concentration of 6-7%. In

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ACCESSION NR: AT4007038

H<sub>2</sub>SO<sub>4</sub> and HCl, there are two corrosion maxima, one at 6-8% Al and a much broader maximum at 25-26% Al. The electrochemical potential in NaCl showed a similar behavior, with positive maxima at the same Al contents. In an alloy with 1% Al, the potential became generally more negative with time, while with 7% Al, the potential increased with time, becoming positive in about 6 minutes. These variations in the corrosion resistance of Ti-Al alloys indicate the existence of phases which act as cathodes with respect to the solid solution of Al in  $\alpha$ -Ti. Orig. art. has: 3 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute, AN SSSR)

SUBMITTED: 00

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ENCL: 01

SUB CODE: MM

NO REF SOV: 001

OTHER: 002

Card 2/3

ACCESSION NR: AT4007038

ENCLOSURE: 01

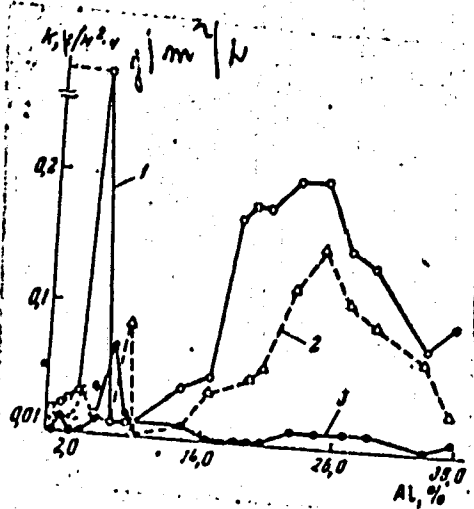


Fig. 1. Dependence of the corrosion rate of Ti-Al alloys on the Al content; 1 - in 40% sulfuric acid; 2 - in 60% hydrochloric acid; 3 - in 5% nitric acid. Ordinate = corrosion in g/m<sup>2</sup>/hr.; abscissa = % Al.

Card 3/3

DASHNITS, L.S. (Odessa)

Certain boundary value problems connected with a couple of  
differential operators. Uch.zap.KHGU 80:139-152 '57.  
(MIRA 12:11)

(Functional analysis)



16(1)

AUTHOR:

Dashnits, L.S.

06305

SOV/140-59-6-6/29

TITLE:

On the Closure of Some Differential Operators

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959,  
Nr 6, pp 44-47 (USSR)

ABSTRACT:

Let

$$(1) \quad l(y) = [p_0(x)y^{(n)}]_n + [p_1(x)y^{(n-1)}]^{(n-1)} + \dots + p_n(x)y$$

be a selfadjoint differential expression, where  $p_k(x) \in C_{n-k}[a, b]$ ,  $k=0, 1, \dots, n$ ,  $p_0(x) \neq 0$ ,  $a \leq x \leq b$ . Let  $f(x) \in L_2(a, b)$  and absolutely continuous on  $[a, b]$ ; let it have absolutely continuous derivatives  $f^{(k)}(x)$ . Let  $\Omega_{L_0}$  denote the set of the  $f(x)$  for which

$$k = 1, 2, \dots, 2n-1, f^{(2n)}(x) \in L_2(a, b) \text{ and}$$

$$(2) \quad f^{(k)}(a) = f^{(k)}(b) = 0, k=0, 1, \dots, 2n-1.$$

Let  $\Omega_L$  be the set of the  $f(x)$  for which  $k=1, 2, \dots, m-1$ ;  $m > 2n$ ,  $f^{(m)}(x) \in L_2(a, b)$  and

$$(3) \quad f^{(k)}(a) = f^{(k)}(b) = 0, k=0, 1, 2, \dots, m-1.$$

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Let  $\Omega_L$  be the set of the  $f(x)$  for which  $k = 1, 2, \dots, m-1$ ,  $f^{(m)}(x) \in L_2(a, b)$  and

$$(4) \quad \sum_{k=1}^m \alpha_{jk} f^{(k-1)}(a) + \sum_{k=1}^m \beta_{jk} f^{(k-1)}(b) = 0, \quad (j=1, 2, \dots, m; m > 2n).$$

The author considers operators  $L_0 f = l(f)$  ( $f \in \Omega_{L_0}$ ),  $L f = l(f)$  ( $f \in \Omega_L$ ) and  $\tilde{L} f = l(f)$  ( $f \in \Omega_{\tilde{L}}$ ).

Theorem: If  $\tilde{L} f = l(f)$  ( $f \in \Omega_{\tilde{L}}$ ), where  $\Omega_{\tilde{L}}$  is the set of those  $f(x) \in \Omega_{L_0}^*$  which satisfy the complete reduced system of boundary conditions of the operator  $L$ .

The boundary condition  $\sum_{k=1}^{2n} \alpha_k f^{(k-1)}(a) + \sum_{k=1}^{2n} \beta_k f^{(k-1)}(b) = 0$  is called the reduced boundary condition of the system (4) if it

On the Closure of Some Differential Operators

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SOV/140-59-6-6/29

arises from (4) by elimination of the derivatives of the order higher than  $2n$ . The totality of the reduced boundary conditions is denoted as a complete reduced system. There are 3 Soviet references.

ASSOCIATION: Odesskiy tekhnologicheskii institut (Odessa Technological Institute)

SUBMITTED: June 23, 1958

Card 3/3

DASHNYAM BADAMYN

Supplements to the flora of eastern Mongolia. Bot.zhur.  
50 no.11:1638-1642 N '65.

(MIRA 1961)

1. Biologicheskii institut AN Mongol'skoy Narodnoy Respubliki.  
Submitted May 31, 1965.

**DASHTAYANTS, G.A.**

**Education on internal diseases in the feldshers and midwives school in Riazan. Fel'dsher & akush., Moskva No.1:47-53 Jan 52. (CIML 21:4)**

**1. Candidate Medical Sciences.**

**DASHAYANTS, G.A.**

Therapeutic significance of cerebrospinal puncture in blindness  
caused by plasmodia. *Klin. med.*, Moskva 30 no.2:77-78 Feb 1952.  
(CJML 22:1)

1. Candidate Medical Sciences. 2. Of the Faculty Therapeutic Clinic  
(Head -- Prof. Ya. Ye. Shapiro), Ryazan' Medical Institute imeni  
Academician I. P. Pavlov, Ryazan'.

DASHTAYANTS, G. A. , DAGAYEV, A. L.

Cases of acute hemocytoblastoma. Klin. med. 30, No 4, 1952.

~~DASHTAYANTS~~

Education of clinical discipline in feldsher-midwife schools according  
to works of O. B. Lepeshinskaya. Fel'dsher & akush. no. 5:46-49 May 1953.  
(GIML 25:1)

1. Ryazan'.
2. Living substance and origin of cells.



DASHTAYANTS, G.A., kandidat meditsinskikh nauk.

Skin symptoms in blood diseases. Vest.ven.i derm. no.6:27-31  
N-D '53. (MLRA 6:12)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zaveduyushchiy -  
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akad. I.P.Pavlova.

(Skin) (Blood--Diseases)

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Pathogenesis of agramlocytosis. Terap.arkh. 25 no.3:58-62 My-Je '53.  
(MIRA 6:9)

1. Fakul'tetskaya terapevticheskaya klinika Ryazanskogo meditsinskogo instituta imeni I.P.Pavlova.  
(Agramlocytosis)

DASHTAYANTS, G.A.

Correlation between agranulocytosis and aplastic anemia. Klin. med.,  
Moskva 31 no.2:45-53 Feb' 1953. (GML 24:3)

1. Candidate Medical Sciences. 2. Of the Faculty Therapeutic Clinic of  
Ryazan' Medical Institute imeni Academician I. P. Pavlov.

DASHTAYANTS, G.A., kandidat meditsinskikh nauk (Byasan').

Clinical aspects and cytologic diagnosis of hemochromatosis. Klin.med.  
32 no.2:62-66 F '54. (MLRA 7:5)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zaveduyushchiy - professor  
Ya.Ye.Shapiro) Ryasanskogo meditsinskogo instituta im. akad. I.P.Pavlova.  
(Hemochromatosis)