"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

CHERNOV, Aleksandr Dmitreyevich; POZDEYEV, Aleksey Vladimirovich, VASIL'YEV, Leonid Georgiyevich; LEVOCHKINA, L.I., tekhn. red.

[Steam turbine installations on ocean-going transport vessels] Paroturbinnye ustanovki morskikh transportnykh sudov. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1958. 157 p. (MIRA 11:7)
(Steam turbines)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

ABRAMOVICH, S.F., doktor tekhn. nauk; VASIL'YEV, L.G., kand. tekhn. nauk

Investigating standard elements of inlet nozzles and shafts of marine gas-turbine units. Sudostroenie 25 no.5:15-21 My '59. (MIRA 12:8)

(Marine gas turbines)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.G., kand.tekhn.nauk

Thirty-fifth anniversary of the publication of the "Korablestroitel'" journal; December 1924-December 1959. Sudostroenie 25 no.12:68-70 D '59. (MIRA 13:4)
(Shipbuilding--Periodicals)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.G., kand.tekhn.nauk

"Aerodynamics of marine turbine blading" by G.A.Matveev and others. Sudostroenie 28 no.6:79 Je '62. (MIRA 15:6)
(Marine turbines) (Matveev, G.A.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.G., kand.tekhn.nauk; SHALIK, G.P., inzh.

Design and construction of a nuclear steam-generating plant for a British submarine. Sudostroenie 28 no.11:66-74 N '62. (MIRA 15:12)
(Great Britain—Atomic submarines)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

S/229/63/000/003/003/003
E194/E455

AUTHORS: Abramovich, S.F., Doctor of Technical Sciences,
Vasil'yev, L.G., Candidate of Technical Sciences

TITLE: An investigation of annular diffusors on marine gas-turbines

PERIODICAL: Sudostroyeniye, no.3, 1963, 34-38

TEXT: In marine gas-turbines, diffusors are located beyond the last stages of turbines and compressors. They differ from ordinary diffusors in having a central core which may be cylindrical or conical and so they are termed annular diffusors. A symmetrical annular diffusor is one whose core is coaxial with the shell; otherwise the diffusor is asymmetrical. The article gives the results of tests of symmetrical and asymmetrical annular diffusors with cylindrical and conical inserts (Fig.1) with both free flow of air from the diffusor and with flow against a screen. Diffusors were tested with expansion angles α = 5 to 40° with cylindrical inserts, and with $(\alpha + \beta)$ = 6 to 40° with conical inserts when $\alpha = \beta$. The ratios of the discharge annulus area F_2 to the inlet annulus area F_1 was $\bar{f}$ = 2.0 and 3.8. Card 1/3 of core to diffusor diameter at in

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The ratio of core to diffusor diameter at inlet $\bar{d} = 0.55$. The tests were made in a wind tunnel, with uniform distribution of pressure and speed, with Reynolds numbers of $Re = 9.3 \times 10^5$ to 1.3×10^6 at the inlet to the diffusor. The M number was in the range of 0.25 to 0.3. Values of diffusor efficiency, diffusor resistance factor and static pressure recovery-factor in the diffusor were calculated from the test results. It was found that the efficiency of annular diffusors is approximately the same over a wide range of F_2/F_1 from 2 to 3.8, provided $(\alpha + \beta)$ is less than 10°. However, for given values of $(\alpha + \beta)$ and of the ratio F_2/F_1, diffusors with conical insert are always more efficient and smaller than those with cylindrical and so they should be used wherever possible. The concept of the equivalent circular diffusor is introduced; it is a diffusor of the same length as the annular diffusor, of the same discharge section and the same pressure gradient. Using this concept, available test results for annular diffusors with conical inserts can be applied to those with cylindrical inserts, and vice-versa, for values of $(\alpha + \beta)$ less than 25°. For the particular conditions used, a screen which

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An investigation of annular ...

was nearer to the discharge than 0.8 equivalent diameters always reduced the efficiency. It is shown that when the width of the equipment is limited it is generally possible to use asymmetrical diffusors without much efficiency loss. There are 7 figures.

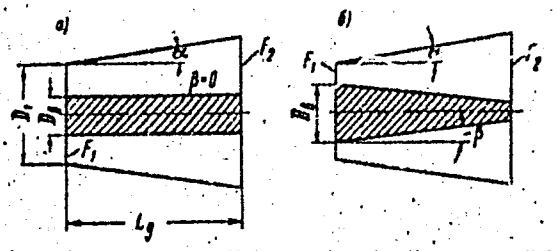

Fig.1.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

BARANOV, Aleksandr Potapovich; KRASNOVSKAYA, N.V.; VASIL'YEV, L.G., kand. tekhn. nauk, retsenzent; ROZIN, I.I., kand. tekhn. nauk, nauchn. red.; KAZ'MINA, M.M., red.

[New sources of electrical power for ships] Novye istochniki elektricheskoi energii dlia sudov. Leningrad, Sudostroenie, 1965. 131 p. (MIRA 18:10)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

L 11965-65 EWT(m)/ WA(a)/EWP(t)/EWP(k)/EWP(b) Pf-4 IJP(c) JD/HW

ACCESSION NR: AP4047344 S/0139/64/000/005/0024/0027

AUTHORS: Zaring, K. L.; Vasil'yev, I. I.

TITLE: On the mechanism of deformation of polycrystalline zinc on going from fast to slow deformation

SOURCE: IVUZ. Fizika, no. 5, 1964, 24-27

TOPIC TAGS: zinc, polycrystal, deformation mechanism, deformation rate

ABSTRACT: This is a continuation of an earlier paper (Izv. vuzov SSSR, Fizika, No. 2, 1964), in which the material and the test procedure are described. The present phase of the work was aimed at facilitating identification of the features of the secondary tension occurring during an instantaneous change in the time rate of the strain. In this connection, a method of intermediate electric polishing was used, wherein the surface relief produced after the

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L 11965-65

ACCESSION NR: AP4047344

pre-straining was removed, making it possible to observe the secondary strain in "pure form." The repolishing took place under the same conditions and in the same solution as the previously described initial polishing of the samples. At the same time, mechanical tests were made with intermediate recovery of the samples, partially duplicating the second-polishing conditions. The fact that the second polishing was accompanied by removal of the sample from the clamps of the testing machine, made it possible to broaden the velocity interval compared with the earlier tests, namely 0.03, 27, and 10^3% per minute. The same laws governing the change in the deformation mechanism with velocity were observed at the increased deformation rates as before. The results indicate that the second deformation begins both with displacement along the grain boundaries and with polygonization. The crystallographic glide mechanism typical of slow tension comes into play later. All these processes are capable of reducing the stress during the time of deformation on going from higher strain rates to lower ones. Orig.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

L 11965-65
ACCESSION NR: AP4047344

art. has: 4 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V. V. Kuyby*shava (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 22May63 ENCL: 00

SUB CODE: SS NR REF SOV: 002 OTHER: 002

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

S/0139/64/000/002/0116/0120

ACCESSION NR: AP4036567

AUTHORS: Zaring, K. L.; Vasil'yev, L. I.

TITLE: Anomalies in polycrystalline zinc deformation at various rates

SOURCE: IVUZ. Fizika, no. 2, 1964, 116-120, and inserts A, B, and C following p. 120

TOPIC TAGS: polycrystalline zinc, metallographic study, interference microscope MII 4, slow deformation, local slip, grain boundary, twinning, weak dislocation

ABSTRACT: The behavior of polycrystalline zinc under 0.03%/min and 27%/min continuous tension rates as well as under sudden change in tension rate during the deformation process was investigated. Mechanical and metallographic studies were made on 99.9% pure zinc with 0.026% by weight Pb, 0.041% Fe, and 0.011% Cd. The wire specimens (1.5 mm in diameter and 50 mm long) were annealed in an oil bath at 140C for 1 hr and subsequently cooled to 40C. Metallographic investigations were made using a 900 magnification MII-4 interference microscope. Slow deformations indicated the presence of local slip with significant shifts along the grain boundaries and a distinct polygonal character, whereas high deformation rates generated a thin, uniform distribution slip, twinning, and weak dislocations along

Card 1/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

ACCESSION NR: AP4036567

the grain boundary. Flow curves of zinc after the sudden application of a tension rate fell on the continuous deformation curves with secondary tension after only a small degree of initial deformation. Orig. art. has: 5 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuyby*sheva (Siberian Institute of Engineering Physics, Tomsk State University)

SUBMITTED: 22May63 DATE ACQ: 05Jun64 ENCL: 00

SUB CODE: MM NO REF SOV: 027 OTHER: 007

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.

Mechanism of the hardening of ordered alloys. Fiz. met. i metalloved. 20 no.1:97-102 Jl '65.
(MIRA 18:11)

1. Severo-zapadnyy politekhnicheskiy institut, Leningrad.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. I.

Vasil'yev, L. I. "A quasirelational hypothesis of rest (in metal)," Trudy Sib. fiz.-tekhn. in-ta, Issue 26, 1946, p. 167-15,- Biblioz: p. 115

SO: U-5241, 17 December 1953, (Letopis 'Zhurnal 'nykh Statey, No. 26, 1949)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. I.

Vasil'yev, L. I. "On the general mathematical formulation of the hypothesis of toughening and relaxation," Trudy Sib. fiz.-tekhn. in-ta, Issue 26, 1948, p. 116-24 - Bibliog: 5 items

SO: U-5241, 17 December 1949, (letopis 'Zhurnal 'nykh Statey, No. 26, 1949)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. I.

PA 163T104

USSR/Physics - Deformation, Plastic Cold-Drawing

Apr 50

"Influence of the Nature of Preliminary Cold-Hardening (Working) Upon the Weakening of Metals During Platic Deformation," L. I. Vasil'yev, Siberian Physicotech Inst, Lab of Metallophys

"Zhur Tekh Fiz" Vol XX, No 4, pp 458-460

Establishes that during tension of tin which has been preliminarily deformed greatly by punching (by a point) and by wire-drawing, a decrease occurs in the deforming stress. Gives possible explanation of this effect. Submitted 20 Jan 49.

163T104

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

1. VASIL'YEV, L. I.

2. USSR (600)

4. Copper

7. Softening metals. Zhur.tekh.fiz. 22 no. 11, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. I.

USSR/Metallurgy - Tin, Relaxation Feb 53

"Effect of Temperature on the Relaxation of Plastically Deformed Metals," L. I. Vasil'yev

Zhur Tekh Fiz, Vol 23, No 2, pp 280, 281

Presents results of expts for studying relaxation capability of plastically deformed Sn in temp range from -140 to 80°C, finding that appreciable relaxation is observed even at -140°C. States that Sn is capable of plastic deformation even at temp of liquid He.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.

2

USSR

Relaxation in metals. III. L. I. Vasil'ev. *Zhur. Tekh. Fiz.* 23, 1394-8(1953); cf. *C.A.* 47, 11803*a*.—Wires of annealed Cu, Ni, Sn, and a Cu-Ni alloy (41.6% Ni) were stretched with velocities v of 0.03% /min. and 27%/min., resp., to a deformation of 19%. After a relaxation period of 15 min. the sample was stretched a 2nd time with v = 0.03%/min. With the exception of Sn the relaxation curves are different for the two speeds. Values of a coeff. $\alpha = [(\sigma_0' - \sigma_1)/\sigma_0\Delta_1] + 100$ were calcd. (where σ_0' is the stress value for 19% deformation, σ_1 the value after Δ_1 = 3 sec. relaxation). From these values α was calcd. for speeds 0.00, 0.6, 2.4, 27, 42%/min. (Sn) and 0.03, 5, 27%/min. for Cu, Ni, Cu-Ni. All α values increase with the velocity. The increase is particularly large in Sn. S. Pakswer

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. L.

USSR/Metallurgy - Metals Deformation, 21 Mar 53
Relaxation

"Certain Data on the Conformity of Relaxation Characteristic and Stressing Rate During Plastic Deformation," L. I. Vasil'yev, Siberian Physicotech Inst, Tomsk State U im V. V. Kuybyshev

DAN SSSR, Vol 89, No 3, pp 451-453

Using specimens made of Cu, Ni, Cu-Ni alloy and Sn, conducts two series of expts to find relaxation characteristics in plastic tension and to det effect of the rate of plastic deformation. Juxtaposition of

272T30

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results revealed evident conformity between relaxation and stressing-rate characteristics of metals investigated. Submitted by Acad I. P. Bardin 31 Jan 53.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'EV, L. I.

J. of the Inst. of Metals
Feb. 1964
Properties of Metals

*Influence of a Change in Speed of Deformation on Plastic Extension [of Copper and Tin]. L. I. Vasil'ev, A. B. Bylina, and M. P. Zagrebennikova. (*Doklady Akad. Nauk B.S.S.R.*, 1953, 90, (5), 767–769).—[In Russian]. Specimens of polycryst. Cu and Sn (0·20% Pb, 0·11% Sb, 0·03% Cu, 0·062% As, 0·011% Fe, 0·008% Bi) wires, dia. 0·44 mm. and 1·86 mm., resp., gauge-length l_0 = 50 mm., were deformed at room temp. in a tensile-testing machine with an elastic dynamometer, used by V. in a previous investigation of the effect of speed of testing (*Zhur. Tekh. Fiziki*, 1952, 22, 1827). The testing speed could be changed in ~1 sec. Speeds used were v_1 and v_2, where v_1 was 0·033%/min. for Cu and 0·03%/min. for Sn, and v_2 was 27%/min. for both metals. The Cu specimens were pulled in 6 groups (7 in each group) at the following speeds: v_1; v_2; v_2 up to 5·6% deformation, then v_1; v_2 up to 17·6%, then v_1; v_1 up to 5·6% then v_2; v_1 up to 26·5%, then v_2. Five groups (7 in each) of Sn specimens were tested at the following speeds: v_1; v_2; v_1 up to 5·3%, then v_2; v_1 up to 29·4%, then v_2; v_2 up to 18·8%, then v_1. The results are given as curves of true stress (σ) versus true deformation, $\epsilon = \ln(l/l_0)$. Changes of speed at small deformations resulted in stepped transfer from the curve for v_1 to that for v_2 or vice versa, but those at greater deformations did not, i.e. the speed conditions of prior plastic deformation (if this is great enough) strongly influence the state of a metal. This effect is less marked in the case of Sn. The suggested explanation for these results is that the extension causes both stable and unstable deformations, the latter being discharged on changing the speed from v_2 to v_1, but those of increased stability preventing the gradual coincidence of the curve with that for v_1. The current value of the stress in the general case is not a single-valued function of the instantaneous values of the deformation, its speed, and the temp.; thus, the mech. equation of state $\sigma = f(\epsilon, v, T)$ is restricted and approximate, cf. Dorn *et al.*, *Trans. Amer. Inst. Min. Met. Eng.*, 1949, 180, 205; see *M.A.*, 16, 287.—G. V. B. T.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. I

ON THE CORRESPONDENCE BETWEEN RELAXATION AND RATE CHARACTERISTICS IN PLASTIC EXTENSION. L. I. Vasiliev [Vasiliyev]. Translated from Doklady Akad. Nauk S.S.S.R. 93, 301-2(1953). 2p. (PB 111-193)

Data are presented on the correlation between relaxation and rate characteristics of Sn, Al, Cu, Cu - Ni alloy, and Ni during plastic extension. The experimental setup is described. Results confirm previous conclusions that the rate of plastic deformation is closely related to the relaxation capacity of the metal under study in the given conditions. (C.H.)

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(2) DNA/LD

Certain Peculiarities in the Plastic Extension at Variable Rate

Dokl. Akad. Nauk 93(6), 1019-1020 Dec., 1953 U.S.S.R.

L.I. Vasil'ev, L.I. Eremina

Index Aeronauticus
June 1954
Testing of Materials

If the rate of stress application to a sample of Cu, Al, or Sn wire is changed suddenly, the stress-strain plot makes a gradual, and not sudden, transition towards the curve characteristic of the new rate of deformation, a transition which is only complete at low strains; at high strain, a course intermediate between the two curves is followed. (Bibl.6)

Siberian Phys-Tech Inst - Tomsk State Univ

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FD-2833

USSR/Physics - Metals, Elasticity

Card 1/1 Pub. 153-16/30

Author : Vasil'yev, L. I.

Title : Ratio of Velocity and Relaxation Coefficients to Velocity of Plastic Deformation

Periodical : Zhur. Tekh. Fiz, 25, 687-690, 1955

Abstract : Experimental data are presented giving ratio of velocity and relaxation coefficients of aluminum to plastic elongation velocity for a specified deformation. Rules are derived. Three references.

Institution : Tomsk State Univ

Submitted : April 4, 1954

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

FD-2034

USSR/Physics - Metals, Electricity

Card 1/1 Pub. 153-17/30

Author : Vasil'yev, L. I. and Pakhryayev, N. Ye.

Title : Effect of Annealing Temperature and of Deformation Degree on the Properties of Aluminum

Periodical : Zhur. Tekh. Fiz, 25, 691-695, 1955

Abstract : Data is presented on some peculiar effect of the annealing temperature and of the degree of previous plastic deformation on the solidity and on the electric resistance of aluminum. The observed rules are clarified. Four references.

Institution :

Submitted : April 3, 1954

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. I.

E-9

USSR / Mechanical Properties of Crystals and Polycrystallic Compounds.

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9426

Author : Vasil'ev, L.I., Butkevich, L.M., Orekhov, Ye.I.
Inst : Siberian Physico-Technical Institute USSR
Title : Effect of Velocity and Degree of Plastic Tension on the Relaxation and Subsequent Deformation of Metals. I.

Orig Pub : Fiz. metallov i metallovedeniye, 1956, 2, No 1, 142-145

Abstract : A polycrystalline copper wire was stretched at a rate of 0.03 and 27% per minute to a deformation of 1.7, 7.6, 11.6, 19.5, and 29.5% and the relaxation of the stresses was observed for 30 minutes, after which the specimens were stretched at a rate of 0.03% per minute. Analogous experiments were carried out with aluminum up to deformations of 3.6 and 19% (the duration of relaxation amounted to 40 minutes). The experimental data obtained show that with increasing de-

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

USSR / Mechanical Properties of Crystals and Polycrystallic Compounds. E-9

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9426

Abstract : degree of deformation there an increase in the difference of the initial stresses of the relaxation curves, obtained after deformation with two different speeds. The degree of preliminary deformation affects the course of the secondary stretching more when the speed and degree of deformations increase. The difference in the behavior of the metals after deformation is explained by the different assortment of distortions that take place in the first deformation.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

Vasil'ev, L.I.

USSR / Mechanical Properties of Crystals and Polycrystallic Compounds. E-9

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9427

Author : Vasil'ev, L.I., Spevak, L.A.
Title : Influence of the Speed and Degree of Plastic Stretching on the Relaxation and Subsequent Deformation of Metals, II.

Orig Pub : Fiz. metallov i metallovedeniye, 1956, 2, No 1, 146-148

Abstract : A polycrystalline wire of tin was stretched with a rate of 0.06 and 27% per minute to a deformation of 1.5, 19.5 and 39.5°, the relaxation of stresses was observed for 40 minutes, after which the specimens were stretched with a rate of 0.06% per minute. The experimental results obtained confirm the conclusions of the previous work (Abstract 9426), but exhibit less contrast because of the greater fusibility of tin compared with copper and aluminum.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. I.

SOV/137-58-11-23408

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 224 (USSR)

AUTHORS: Tsen Lin-chzhao, Kho Shou-an', Chzhan Chen-kan', Vasil'yev, L. I.

TITLE: On the Initial Appearance of Plastic Deformation (O vozniknovenii plasticheskoy deformatsii)

PERIODICAL: Dokl. 7-y Nauchn. konferentsii, posvyashch. 40-letiyu Velikoy Oktyabr'sk. sots. revolyutsii. Nr 2. Tomsk, Tomskiy un-t, 1957, pp 61-62

ABSTRACT: Processes connected with the initial appearance of plastic deformations were investigated on single crystals (SC) of Al (99.99 per cent). Fine grooves (G) having a constant depth were superimposed on the electropolished surfaces of identically oriented SC. Metallographic studies were carried out in order to determine how the formation and expansion of slip lines occurring during stretching of the SC is affected by the following factors: The presence and orientation of the G; subsequent annealing operations; removal of the G by means of electropolishing, and oxidation of the surface. It is shown that the slip lines appear and expand primarily in the immediate vicinity of the G; additional elongation is required to produce slip lines in areas that

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

On the Initial Appearance of Plastic Deformation

are more remote from the G. To a considerable degree this effect is dependent on the orientation of the G with respect to the crystallographic axes of the crystal and to the direction of the elongation of the axis of the specimen. The removal of the surface layer containing the G by means of electropolishing does not eliminate the above condition. The effect of the G may be eliminated by means of annealing the SC in vacuum at a temperature of 550°C. It is concluded that the stimulating effect of the G on the appearance of slips during elongation of the specimens is not governed by a geometrical factor (the "notch" effect) but is rather determined by certain physical changes in the condition of the crystal lattice in regions adjoining the G. Electron-microscope studies revealed minute cracks on the bottom of the G cut into a plastically elongated SC. However, there is no proof available as yet that these cracks are responsible for the premature appearance of slip lines

L. G.

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L-I.

COMMUNIST CHINA/Solid State Physics - Mechanical Properties of E-10
Crystals and Polycrystalline Substances.

Abs Jour : Ref Zhur - Fizika, No 10, 1958, No 22935

Author : Vasil'ev L.I., Tsyen' Lin'-chzhao, Yan Dayui,
Inst : Not Given
Title : Metallographic Study of the Influence of Predeformation at Different Temperatures on the Plastic Deformation of Aluminum Single Crystals.

Orig Pub : Uli syuebao, Acta phys. sinica, 1957, 13, No 6, 443-451

Abstract : See Abstract 22934

Card : 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.; TSEN LIN-CHZHAO [Tsien Ling-chao]; YAN DA-YU [Yang Ta-yu]

Mechanism of deformation of single crystals of aluminum under variations of testing temperatures. Issl. po zharopr. splav 3:217-238 '58. (MIRA 11:11)
(Metal crystals) (Aluminum--Testing) (Deformations (Mechanics))

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

SOV/139-58-6-16/29

AUTHORS: Vasil'yev, L.I., Ch'ing Ch'i-san, Wu Tz'e-ting, Li Ch'i-t'ung, Chang Hung-tu

TITLE: Influence of Velocity Variation on Extension Curves of Aluminium Single Crystals (Vliyaniye variatsii skorosti na krivyye rastyazheniya alyuminiyevykh monokristallov)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1958, Nr 6, pp 99-105 (USSR)

ABSTRACT: The paper is a continuation of previous work (Ref 1 and 2). Experiments were carried out on high-purity aluminium (Al $\geqslant$ 99.99%, Fe $\leqslant$ 0.0035%, Si $\leqslant$ 0.0025%, Cu $\leqslant$ 0.005%). The single crystals were produced by recrystallisation and their orientation was determined from Lane diagrams. The experiments consisted of extending the specimens at a velocity v until the relative extension reached 19% and then changing the velocity suddenly from v_1 to v_2. In some of the experiments, v_1 was 0.04% per minute and v_2 40% per minute; in others v_1 was 40% per minute and v_2 0.04% per minute. The stress-strain curves with relative extensions up to 70% are plotted, together with the derived shear curves. It is found that the stress-strain curve is discontinuous at the point of velocity change and differs for different velocities. The bearing

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Influence of Velocity Variation on Extension Curves of Aluminium Single Crystals

of these results on quenching and hardening is discussed and the effect of surplus vacancies is under investigation. There are 8 figures and 48 references of which 15 are Soviet, 29 English, 2 German and 2 French.

ASSOCIATION: Pekinskiy Universitet, Pekin, KNR (Peking University)
Sibirskiy Fiziko-Tekhnicheskiy Institut pri Tomskom Gosuniversitete imeni V.V.Kuybysheva (Siberian Physico-Technical Institute, Tomsk University imeni V.V Kuybyshev)

SUBMITTED: 13th June 1958

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

Vasil'yev L. I.

AUTHORS: Chen Khun-I, Bao Sen-Ke, Vasil'yev, L. I. 20-3-19/59

TITLE: On the Influence of the Velocity of Deformation and of Recovery Upon the Internal Friction in Aluminum (O vliyanii skorosti deformatsii i otdykha na vnutrenneye treniye v alyuminii)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 3, pp. 485-487 (USSR)

ABSTRACT: This work gives some results of the measurements of the internal friction of polycrystalline aluminum (99,9%) which was strained to 5; 10; 15; 20; 25% with the velocities $v_1 = 4\ min^{-1}$ and $v_2 = 6,10^4\ \%\ min^{-1}$. The samples had a diameter of 1,25 mm and were 300 mm long; Previous to the tests they have been annealed for 2 hours at 550°. The average diameter of the grains attained 0,1 mm. The internal friction Q^{-1} was measured by the method of the torsion pendulum by Ke Tin-sua (references 17, 18, 19), and this at room temperature after 5; 15; 30; 60; and 120 minutes after the plastic extension. A part of the deformed samples was kept before the measuring of Q^{-1} at increased temperature for one hour. The results of the experiments are illustrated

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On the Influence of the Velocity of Deformation and of Recovery Upon the Internal Friction in Aluminum

by two diagrams. Increased velocities of the plastic deformation led to an increase of Q^{-1}, as it was already observed in the case of molybdenum (reference 6), whereon the influence of the velocity increases with an increasing rate of plastic deformation. Reference is made to analogous results by other authors. The recovery at room temperature leads to an advancing decrease of the difference of the values of Q^{-1} for quickly and slowly strained test pieces. In case of low rates of deformation this difference vanishes completely, but in case of larger deformations it is retained partly. The restablishment of the internal friction proceeds fastest in the first moments of recovery. The observed systematic increase of the remanent internal friction with increasing rate of deformation was observed not only in the case of Al at testing at low frequencies, but i. g. also at measurements with high frequencies in α-brass. It is difficult to give a judgement, in favour of which structural peculiarities of the quickly and slowly deformed polycrystals of aluminum speaks the difference of the values of Q^{-1}. There are 2 figures and 27 references, 8 of which are Slavic.

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On the Influence of the Velocity of Deformation and of Recovery upon the Internal Friction in Aluminum

20-3-19/59

ASSOCIATION: **Peking University,** Peking, Chinese People's Republic (Pekinskiy universitet Pekin, KNR)
Sibirian Physical and Technical Scientific Research Institute at the State University imeni V. V. Kuybyshev, Tomsk (Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut pri Tomskom gosudarstvennom universitete imeni V. V. Kuybysheva)

PRESENTED: August 16, 1957, by G. V. Kurdyumov, **Academician**

SUBMITTED: August 12, 1957

AVAILABLE: Library of Congress

Card 3/3

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

24.7000

76091
SOV/70-4-5-23/36

AUTHORS: Vasil'yev, L. I., Zaring, K. L., Kudryavtseva, L. A.

TITLE: Multiple Slips in Zinc at Indoor Temperatures

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 5, pp 768-772 (USSR)

ABSTRACT: It has been known that zinc crystals deformed at indoor temperatures develop slip parallel to (0001), $[2\bar{1}\bar{1}0]$ while at higher temperatures the slip takes place parallel to $(01\bar{1}0)$, $[2\bar{1}\bar{1}0]$. In special cases of the crystal orientation with respect to the stress, slips have also been developed in $(11\bar{2}2)$, $[\bar{1}\bar{1}23]$ and $(01\bar{1}\bar{1})$, [?] directions. The authors, in deforming the specimens of polycrystalline zinc rods at indoor temperatures found that some grains slip in two different directions, i.e., parallel to (0001), $[2\bar{1}\bar{1}0]$ and $(01\bar{1}1)$, $[2\bar{1}\bar{1}0]$, or even in three directions. These cases are called multiple slips. Both slips take place in the direction of the shortest interatomic spacing $[2\bar{1}\bar{1}0]$. The specimens, 50 mm long and 1.5 mm in diameter, 99.8% Zn or purer, were annealed at 140° C in oil bath for one hour, cooled

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off, electropolished in the aqueous solution of orthophosphoric acid, plastically deformed by stretching with device UPR at the rate of 0.03% to 27%/min, and studied under interference microscope MII-4. Larger grains had clearer and more variegated slips. No grain was deformed uniformly; some regions of a grain remained undeformed. Some grains were broken into blocks circumscribed by differing slip planes while other grains had one or two sets of glide bands. Each set of kink bands showed offsets of about the same height and form pointing to their identical compositions of a similar number of glide planes. The interplanar angle φ, between basal (0001) and pyramidal (01$\bar{1}$1) slip planes proved in the majority of cases to be close to its theoretical value of 65°. The development of pyramidal slip planes in polycrystalline specimens, while they remain suppressed in single crystals, apparently is the effect of the adjacent grains and of the extremely nonuniform deformation of the polycrystalline specimens. Under these conditions, the stress within some grains apparently

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exceeds the critical point at which the pyramidal slip planes begin to develop. Larger grains offer better opportunity for the development of pyramidal slips, since small grains can more easily be turned and released of stresses. It is still not verified whether a rapid deformation contributes to the development of pyramidal slips. Additional slip planes were also observed in polycrystalline specimens constituted of aluminum and brass grains and near the grain boundaries of di- and tricrystalline aluminum. There are 3 figures; and 12 references, 7 U.S., 2 Soviet, 1 U.K., and 1 Canadian. The 5 most recent U.S. references are: Ojala, T., et al., J. Metals, 8, 10, 1344, 1956; Gilman, J. J., Acta Metallurgica, 3, 2, 209, 1955; Gilman, J. J., J. Metals, 8, 10, 1326, 1956; Boas, W., Ogilvie, G. J., Acta Metallurgica, 2, 5, 655, 1954; The U.K. reference is: Bell, R. L., Cahn, R. W. Proc. Roy. Soc. A, 239, 1219, 494, 1957.

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Multiple Slips in Zinc at Indoor Temperatures

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SOV/70-4-5-23/36

ASSOCIATION: Siberian Physicotechnical Scientific Research Institute (Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut)

SUBMITTED: May 20, 1959

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

69152

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S/139/59/000/06/008/034
E091/E135

AUTHORS: Vasil'yev, L.I., Chen Khun-i, In Dao-lo, Kz Yuz-kuan'.

TITLE: Influence of Close and Distant Order on the Deformation of a Cu_3Au Alloy at Various Rates of Plastic Straining

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 6, pp 48-60 (USSR)

ABSTRACT: The Cu_3Au alloy was made from copper of above 99.95% purity and gold of 99.99% purity. Melting was carried out in a vacuum induction furnace. The ingot was homogenised for 100 hours at 850 °C and converted into wire of 0.80 mm diameter by rotary forging and wire drawing. This wire was then cut into test pieces, the working length of one series of which was 80 mm, and that of another series, 40 mm. The test pieces were subjected to annealing at 800 °C for 2 hours in order to remove the effects of work hardening. An X-ray analysis, carried out after annealing, showed an absence of texture. The test pieces had a uniform polycrystalline structure with an average grain size of approximately 10 μ. One part of the specimens was transformed into an ordered state. This was attained by annealing for 48 hours in high vacuum

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E091/E135

Influence of Close and Distant Order on the Deformation of a Cu_3Au Alloy at Various Rates of Plastic Straining

at 360 °C, followed by furnace cooling to 310 °C, 5 hours' soaking at that temperature and furnace cooling down to room temperature. The specific electrical resistance after such heat treatment was found to be 4.6×10^{-6} ohm.cm. The electrical resistance was measured by means of a double bridge. A disordered state was secured in the other part of the specimens. This was done by soaking them in vacuum at 500 °C for 2 hours, after which they were rapidly cooled in a stream of air. Mechanical testing was carried out in a UPR-type machine (Ref 31). Curves for plastic straining and relaxation were registered on photographic paper. In order to make sure that a few peculiarities, observed in extension diagrams, are not due to chance causes, deformation of Cu_3Au specimens was alternated with tensile testing of pure copper specimens. The following rates of deformation were used: 0.02%/min, and 20%/min for long specimens, and 0.04%/min and 40%/min for short specimens (with a working length of 40 mm). All tests were carried out at room temperature. In order to study the

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E091/E135

Influence of Close and Distant Order on the Deformation of a Cu_3Au Alloy at Various Rates of Plastic Straining

influence of the rate of deformation in greater detail, experiments were carried out in which the rate was changed suddenly during testing. In such cases, during photographic registration of extension diagrams, the rate of revolution of the drum with the photographic paper was increased or decreased prior to changing the extension rate in such a way that the scale of the diagrams along the elongation axis remained unchanged. The degree of order during deformation was judged by the magnitude of electrical resistance (ρ) which was measured during the plastic deformation process without removing the specimens from the grips. During the measurements of ρ, pulling was discontinued every time for approximately 2 minutes. In the plotting of extension curves, the stress (σ) was calculated as the ratio of load to cross sectional area of the specimen at a given moment of deformation. The percentage elongation (ε) was taken as a measure of deformation. Each extension curve was plotted from the results of testing 4-6 specimens in the uniform

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E091/E135

Influence of Close and Distant Order on the Deformation of a Cu_3Au Alloy at Various Rates of Plastic Straining

deformation range. In Fig 1, extension curves for the Cu_3Au alloy are shown in the disordered (1 and 2) and ordered (3 and 4) states. Fig 2 shows the initial portion of the diagram for the slow elongation of the Cu_3Au alloy in the ordered state. Fig 3 shows the portion of a slow elongation diagram of a disordered Cu_3Au alloy. Fig 4 shows the initial portion of a rapid elongation and subsequent relaxation (RL) diagram of a disordered Cu_3Au alloy. Fig 5 is an elongation diagram of a disordered Cu_3Au alloy in which the rate of deformation was suddenly increased (at point B) from 0.04%/min to 40%/min. Fig 6 shows the appearance of a "yield tooth" after straining of a Cu_3Au alloy had been discontinued on attaining an elongation of 5% (curves 1 and 2) and 20% (curves 3 and 4). The rate of deformation was 20%/min. Curves 1 and 3 apply to a disordered alloy, and curves 2 and 4 to an ordered alloy. Experiments have shown that if the rate of prior deformation is identical, subsequent stress relaxation in a disordered

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Influence of Close and Distant Order on the Deformation of a Cu_3Au Alloy at Various Rates of Plastic Straining

alloy occurs less intensively than in an ordered one. Fig 7 shows relaxation curves for 2 specimens of a Cu_3Au alloy, deformed at a rate of 20%/min, up to an elongation of 20%. It was found that the specific electrical resistance of an ordered alloy increased greatly during plastic elongation. In rapid deformation, it increases by 16% at an elongation of 14%, and by 45% at an elongation of 30%. Slow elongation exerts a somewhat lesser influence. No change in electrical resistance was observed in a disordered alloy. The authors arrive at the following conclusions. 1) Destruction of ordering occurs in an ordered alloy during plastic extension. 2) In an ordered alloy, a decrease of distant order and breakdown of anti-phase domains brings about additional ordering. However, the destruction of close order in the plastic elongation of a disordered Cu_3Au alloy lowers the integral effect of ordering. Hence, the rate of work hardening of a disordered alloy is considerably less than that of an ordered one. 3) In an ordered Cu_3Au alloy under conditions of stress, the

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S/139/59/000/06/008/034
E091/E135

Influence of Close and Distant Order on the Deformation of a Cu_3Au Alloy at Various Rates of Plastic Straining

atomic mobility is less than that in a disordered alloy (Ref 60). 4) The appearance of a sharp "yield tooth" as a result of stopping the rapid elongation of a disordered alloy (Fig 6) confirms that an ordering process develops with time. 5) Alloys, as a rule, have a tendency to close order formation or to segregation of like atoms.

There are 7 figures and 71 references, of which 51 are English, 12 Soviet, 5 German and 3 Japanese.

ASSOCIATION: Pekinskiy universitet KNR (Peking University KNR)

Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V. Kuybysheva (Siberian Physico-Technical Institute, Tomsk State University imeni V.V. Kuybyshev)

Card 6/6

SUBMITTED: December 31, 1958

Note: This paper was read at Peking University on October 30, 1956, and at the Siberian Physico-Technical Institute, Tomsk University on Jan.6,1958.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

18(0), 25(7)
AUTHOR: Vasil'yev, L. I.

SOV/126-7-2-36/39

TITLE: A Universal Extensometer (UPR)
(Universal'nyy pribor dlya rastyazheniya (UPR))

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 2, pp 314-316 (USSR)

ABSTRACT: An extensometer is described, by means of which three types of tests can be carried out: (1) extension at a constant rate; (2) extension under a constant load (stress); (3) relaxation tests. The instrument is of the laboratory type and without the auxiliary motors its dimensions are 40 x 50 x 70 cm. The extensometer is meant for testing of monocrystalline and polycrystalline samples of small cross-section and up to 200 mm length. In tests at a constant rate of extension (Fig 1) the load is measured by means of an elastic dynamometer in the form of a flat spring, lying on two prisms, 1, and fitted with a mirror, 2. The sample is extended by displacement of a lower clamp, 3, coupled to a micrometer screw, 4. Loads of up to 40-50 kg can be applied and the deformation can be measured to

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within 0.01 mm. At every 0.5 mm of deformation a sound or light signal is produced. The rate of displacement of the lower clamp may be varied between 0.014 and 14 mm/min. This range may be extended in the direction of lower rates of extension. A special device, 8, makes it possible to lower the load very quickly to a given value or to remove the load altogether. If sufficiently hard dynamometric springs are used, the instrument can be employed to carry out relaxation tests, in particular the dependence of relaxation on the initial stress and on the degree and rate of preceding deformation. The extension and the relaxation curves may be recorded automatically using a light beam reflected from the mirror, 2, onto photographic paper wrapped round a drum rotating at a constant rate. By a simple replacement (a beam, 12, is changed), the extensometer can be used to carry out tests at a constant load (Fig 2). The load is applied by means of a lever, 13, supported on a prism. By rotation of a handle, 14, a bracket, 15, is lowered smoothly, freeing a rod, 16, which carries weights. Extension (displacement of an upper clamp, 17)

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is measured using a mirror, 18. Again the extension-time curves can be recorded photographically. It is also possible to study the dependence of extension under a constant load on the preceding deformation at a constant rate. All these mechanical tests may be carried out at a low or a high temperature. The modification used for this purpose is shown in Fig 3. It consists essentially of a rod, 21, which transmits extension of the sample, 25, placed in an electric furnace or in a Dewar vessel, 26.
There are 3 figures and 3 references, two of which are Soviet and one French.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete (Siberian Physico-Technical Institute at Tomsk State University)

SUBMITTED: May 21, 1957

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.

Interaction of subboundaries and twins in the deformation of zinc. Izv. vys. ucheb. zav.; fiz. no. 1:87-89 '60. (MIRA 13:12)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybyshova.
(Zinc crystals) (Deformations (Mechanics))

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E021/E191

AUTHOR: Vasil'yev, L.I.

TITLE: Twins and the Development of Sub-boundaries in Deformed Zinc. Letter to the Editor.

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol 9, Nr 1, pp 158-160 (USSR)

ABSTRACT: Experiments were carried out on zinc with impurity limits of Pb 0.084%, Fe 0.061%, Cd 0.035%. Both fine-grained (0.02-0.04 mm) and coarse-grained (0.5-1.0 mm) specimens were used. They were heat-treated at 140 °C for 1 hour. They were then electropolished and deformed at rates varying from 0.03%/min to 10%/sec. After deformation the samples were subjected to metallographic and interference studies with a microscope MII-4. In the coarse-grained specimens the twins ended in "tails" giving a more or less developed subgrain boundary. Fig 1 shows several of the twins with a magnification of 730. The first two pictures show a well developed subgrain boundary between A and B. The last picture shows the connection between the subgrain boundary and the twin in a fine-grained structure. The results show that twinning may stimulate

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VASIL'YEV, L.I.

Using continuous electrolyte supply in high-speed zinc plating of parts. Mashinostroitel' no.12:28 D '60. (MIRA 13:12)
(Zinc plating)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.; U TS-TIN; SIN' SYU-SAN' [Hsin Hsiu-san]; LI SI-TYUN; CHZHAN KHUN-TU [Chang Hung-t'u]

Effect of variations in velocity on the expansion curve of aluminum monocrystals. Part 2. Izv.vys.ucheb.zav.;fiz. no.1:52-57 '62. (MIRA 15:6)

1. Pekinskiy universitet, Kitayskoy Narodnoy Respubliki i Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.
(Aluminum crystals)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

S/139/62/000/001/009/032
E021/E435

AUTHORS: Vasil'yev, L.I., Wu Ts-t'ing, Hsin Hsiu-san, Li Hsi-tiung, Chang Hung-t'u

TITLE: The influence of variations in rate on the strain curves of aluminium single crystals. II

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika. no.1, 1962, 52-57

TEXT: Previous work of the authors covered the influence of sudden changes in the deformation rate on high purity aluminium single crystals and on polycrystals of commercial aluminium. In the present work, specimens were prepared from an aluminium plate of commercial purity (99.6%). Wires of 2.5 mm diameter were prepared and heated for 1 hour at 580°C. The diameter was decreased to 2 mm by forging; samples were then cut from it and again annealed at 580°C for 1 hour. Single crystals were prepared from the wire by recrystallization after giving it the critical degree of deformation (2.5% in tension). Single crystals 400 mm long were prepared. The initial orientation of the crystals was determined by X-rays with an accuracy of 2°.

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The influence of variations ...

Mechanical tests were carried out at different rates (0.04 and 40 %/min). After some deformation had taken place, the deformation rate was suddenly changed. When a slow rate of deformation was first employed and then later changed to a fast rate, the resistance to deformation was less than when a fast deformation rate was used from the beginning. When a fast deformation rate was first used and then changed to a slow rate, the resistance to deformation was higher than that when a slow rate was used from the beginning. This irreversible influence of the rate of pre-deformation was greater for crystals favourably orientated for multiplet slip than for crystals unfavourably orientated. The results have shown that the influence of the rate of pre-deformation on mechanical properties is connected with the rate dependence of the mechanism of deformation of single crystals and the occurrence of corresponding structural changes. There are 8 figures.

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S/139/62/000/001/009/032
E021/E435

The influence of variations ...

ASSOCIATIONS: Pekinskiy universitet, KNR (Peking University, Ch P R)
Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V.Kuybysheva
(Siberian Physicotechnical Institute at Tomsk State University imeni V.V.Kuybyshev)

SUBMITTED: December 23, 1960

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

L 13403-63 EWP(q)/BDS/EWT(1)/EWT(m)/EEC(b)-2 AFFTC/ASD IJP(C)/
JT-2/JD
ACCESSION NR: AP3000090 S/0126/63/015/004/0481/0485

65
61

AUTHOR: Vasil'yev, L. I.; Orlov, A. N.

TITLE: Hardening of ordered alloys (Report of the Ukrainian SSR Council, concerning the ordering of atoms and its effect upon the properties of alloys, held in Kiev, April, 1962)

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 4, 1963, 481-485

TOPIC TAGS: ordered alloy hardening, dislocation immobilization

ABSTRACT: Certain hardening mechanisms specific for ordered crystals are discussed. Experiments have shown that dislocations in ordered alloys proceed in pairs. A dislocation pair slides under a stress smaller than the characteristic stress of the material. If a pair dislocation is interrupted either along its whole length or partially, the dislocations tend to be immobilized and only an excessive stress would make them continue. The anti-phase boundary (which coincided with the shearing plane before the interruption) would then acquire a jog that prevents further dislocations. A special case in which the dislocations have a helical component is discussed. In this case the formation of jogs proceeds more effectively because the height of a jog is doubled and its density is increased. The average deforma-

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

L 13403-63
ACCESSION NR: AP3000090

tion in the dislocations up to the point at which a barrier is encountered may be evaluated mathematically. A formula based on certain assumptions concerning the density of dislocations is presented. The actual deformations may be of a smaller magnitude because of the presence of various other barriers. Experiments have shown that relatively large deformations are possible under stresses well below the characteristic stress. This is attributed to the formation of new dislocations rather than to the breaking of barriers (jogs) which were formed during the process of hardening. The authors express their appreciation to V. I. Syutkina and E. S. Yakovleva for the discussion. Orig. art. has: 3 formulas and 4 figures.

ASSOCIATION: Severo-Zapadny*y politekhnicheskiy institut (Northwestern Polytechnic Institute); Institut fiziki metallov AN SSSR (Institute of Physical Metallurgy, Academy of Sciences, USSR)

SUBMITTED: 31Oct62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: 00 NO REF SOV: 005 OTHER: 012

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

ZARING, K.L.; VASIL'YEV, L.I.

Characteristics of the deformation of polycrystalline zinc at various speeds. Izv. vys. ucheb. zav.; fiz. no. 2:116-120 '64. (MIRA 17:6)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

ZARING, K.L.; VASIL'YEV, L.I.

Correspondence of the relaxation and velocity characteristics of plastically deformed zinc. Izv. vys. ucheb. zav.; fiz. no.5:21-24 '64.

Mechanism underlying the deformation of polycrystalline zinc when the deformation rate is slowed down. Ibid.:24-27

(MIRA 17:11)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

L 11964-65 EWT(m)/EWA(d)/EWP(k)/EWP(b)/EWP(t) Pf-4 IJP(c)/ASD(f)-2/
ASD(m)-3 JD/HW

ACCESSION NR: AP4047343 S/0139/64/000/005/0021/0024

AUTHORS: Zaring, K. L.; Vasil'yev, L. I.

TITLE: On the correspondence between the relaxational and velocity characteristics in plastic deformation of zinc

SOURCE: IVUZ. Fizika, no. 5, 1964, 21-24

TOPIC TAGS: zinc, plastic deformation, velocity coefficient, relaxation coefficient, metal relaxation

ABSTRACT: The purpose of this investigation was to check whether conclusions reached in earlier papers by one of the authors (Vasil'yev, ZhTF v. 20, 5, 619, 1950 and v. 25, 4, 687, 1955; DAN SSSR v. 89, 3, 451, 1953 and v. 92, 2, 301, 1953; L. M. Butkevich, Izv. vuzov SSSR, fizika, No. 6, 3, 1958) concerning the connection between the relaxation and velocity characteristics of the group of metals with face-centered cubic and tetragonal lattices hold true also for

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metals with other crystallographic systems. Annealed wire samples of polycrystalline zinc, 1.5 mm in diameter, and 50 mm long, were therefore tested on a universal tension instrument (UPR) under 2 and 19% tension produced at rates from 0.03% to 240% per minute at room temperature, and the relaxation and velocity coefficients were calculated using the formulas published in the earlier papers. The relaxation coefficient was determined for time intervals of 3, 6, 15, 30, and 60 seconds. The results indicate an agreement between the dependences of these characteristics on the deformation rate in the sense that all the curves are similar in behavior and that zinc does not behave differently from the other metals. This confirms the general nature of the correspondence between the relaxation velocity coefficients of metals, observed in the earlier work, and the deduction that the relaxing ability of metals is one of the most important factors determining the velocity dependence of their mechanical properties. "The authors thank L. M. Butkevich for reading the manuscript and for valuable remarks." Orig. art. has: 4 figures.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

L 11964-65
ACCESSION NR: AP4047343

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V. V. Kuyby*sheva (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 13May63 ENCL: 00

SUB CODE: SS, MM NR REF SOV: 006 OTHER: 003

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.

Method of penicillin-therapy. Sovet.med. no.3:28-30 Mr '50. (CIML 19:2)

1. Of the Second Hospital of the Therapeutic-Medical Administration of the Kremlin (Head -- Prof. P.I.Yegorov).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.; SAVCHENKO, I.I. (Moskva)

Intravital diagnosis of coarctation of the aorta. Sov. med. 25 no.4:129-133 Ap '62. (MIRA 15:6)

1. Iz klinicheskoy bol'nitsy No.6 (glavnyy vrach I.N. Kurgannikov).
(AORTA--DISEASES)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.; KULENKO, E.M.; KUZNETSOVA, N.Ya.

Determination of uropepsin in patients with diseases of digestive organs. Kaz. med. zhur. no.6:44-46 N-D '60. (MIRA 13:12)

1.Klinicheskaya bol'nitsa No 6 Mosgorzdravotdela (vlavvrach - I.N. Kurgannikov).
(UROPEPSIN) (DIGESTIVE ORGANS--DISEASES)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.

Cystinuria and cysteine calculi. Terap.arkh. 33 no.4:89-93 '61. (MIRA 14:5)

1. Iz klinicheskoy bol'nitsy No.6 Moskovskogo gorodskogo otdela zdravookhraneniya.
(CYSTINE) (CALCULI, URINARY)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

1. VASIL'YEV, L. I.

2. USSR (600)

4. Whitefishes--Rybinsk Reservoir

7. Whitefish (Coregonus) in the Rybinsk Reservoir, Trudy Gidrobiol. ob-va, 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASILIYEV, I. I.

Some features in the establishment of the commercial fish fauna in Rybinsk Reservoir during 1941-1952. Trudy Biol.sta."Borok" no.2:142-165 '55. (MLRA 9:6)
(Rybinsk Reservoir--Fisheries)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.

Growth of bream in Rybinsk Reservoir. Trudy Biol.sta."Borok" no.2:301-306 '55. (MLRA 9:6)
(Rybinsk Reservoir--Bream)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.

Herring of the Pechora Bay and adjacent regions; an outline of biology and fishery prospects. Probl. Sev. no.4:121-130 '61. (MIRA 15:1)

(Pechora Bay region--Herring)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.I.; ROZENBERG, R.A.

Work of the Central Laboratory of the Podol'sk Mechanical Plant on the introduction of new technological processes. Zav.lab.27 no.10:1316-1317 '61. (MIRA 14:10)

1. Nachal'nik TSentral'noy zavodskiy laboratorii Podol'skogo mekhanicheskogo zavoda (for Vasil'yev). 2. Zamestitel' nachal'nika TSentral'noy zavodskoy laboratorii Podol'skogo mekhanicheskogo zavoda (for Rozenberg).
(Podol'sk—Engineering laboratories)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

Vasil'yev, L. I.

ZEYDE, L.I., inzhener; VASIL'YEV, L.I., kandidat tekhnicheskikh nauk; SOKUHENKO, Ye.A., inzhener

Deep foundations for bridge supports made of reinforced concrete envelope-piles. Transp.stroi.5 no.5:4-8 Jl'55. (MLRA 8:12)
(Bridges--Foundations and piers) (Piling (Civil engineering))

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, Lev Ivanovich; ORLOV, A.N., red.; GRIGOR'YEVA, I.S., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Dislocations in metals and alloys] Dislokatsii v metallakh i splavakh; obzor. Leningrad, Leningr. dom nauchno-tekhn. propagandy, 1963. 99 p. (MIRA 16:6)
(Dislocations in metals)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'EV, L. L.

The reflexology of work. Pod obshchoi redaktsiei i s predisloviem prof. A. A. Pressa. Moskva, Gos. izd-vo, 1926. 167 p. At head of title: V. M. Bekhterev, L. L. Vasil'ev i A. F. Verbov.

Occupations - Diseases and hygiene. I. Vasil'ev, L. L. II. Verbov, A. F.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

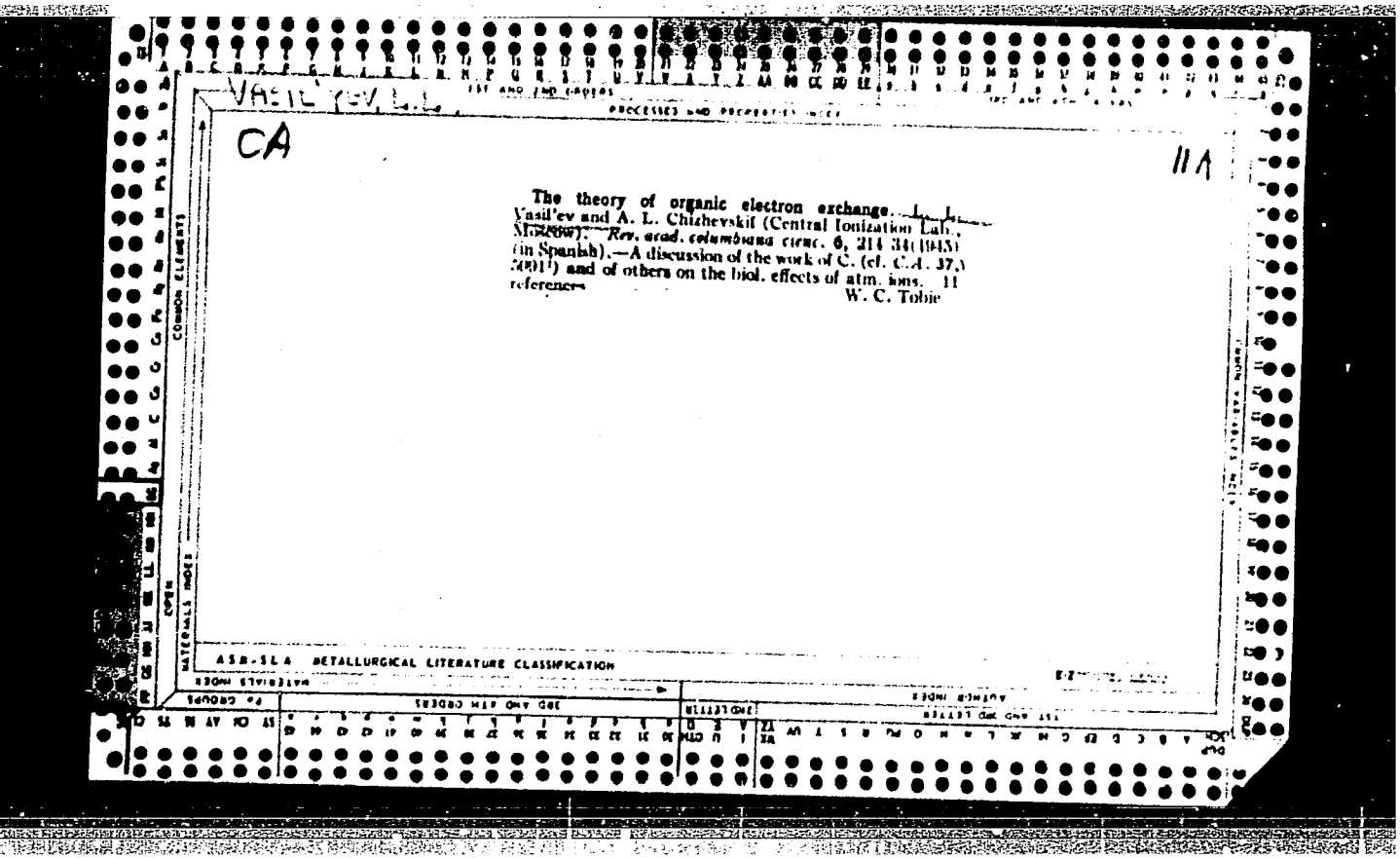
"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

Vasil'ev, L., jt. au.

Studies on parabiosis. Moskva, Izd-vo Kommunisticheskoi akademii, 1927. 170 p. At head of title: A. Ukhtomskii, L. Vasil'ev, M. Vinogradov.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6



VASIL'YEV, L.L.

CA

11A

The theory of organic electron exchange. L. L. Vasil'ev and A. L. Chizhevskiĭ (Central Ionization Lab., Moscow). *Rev. acad. columbiana cienc.* 6, 214-34 (1943) (in Spanish).—A discussion of the work of C. (cf. C.A. 37, 5001[1]) and of others on the biol. effects of atm. ions. 11 references.
W. C. Tobie

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

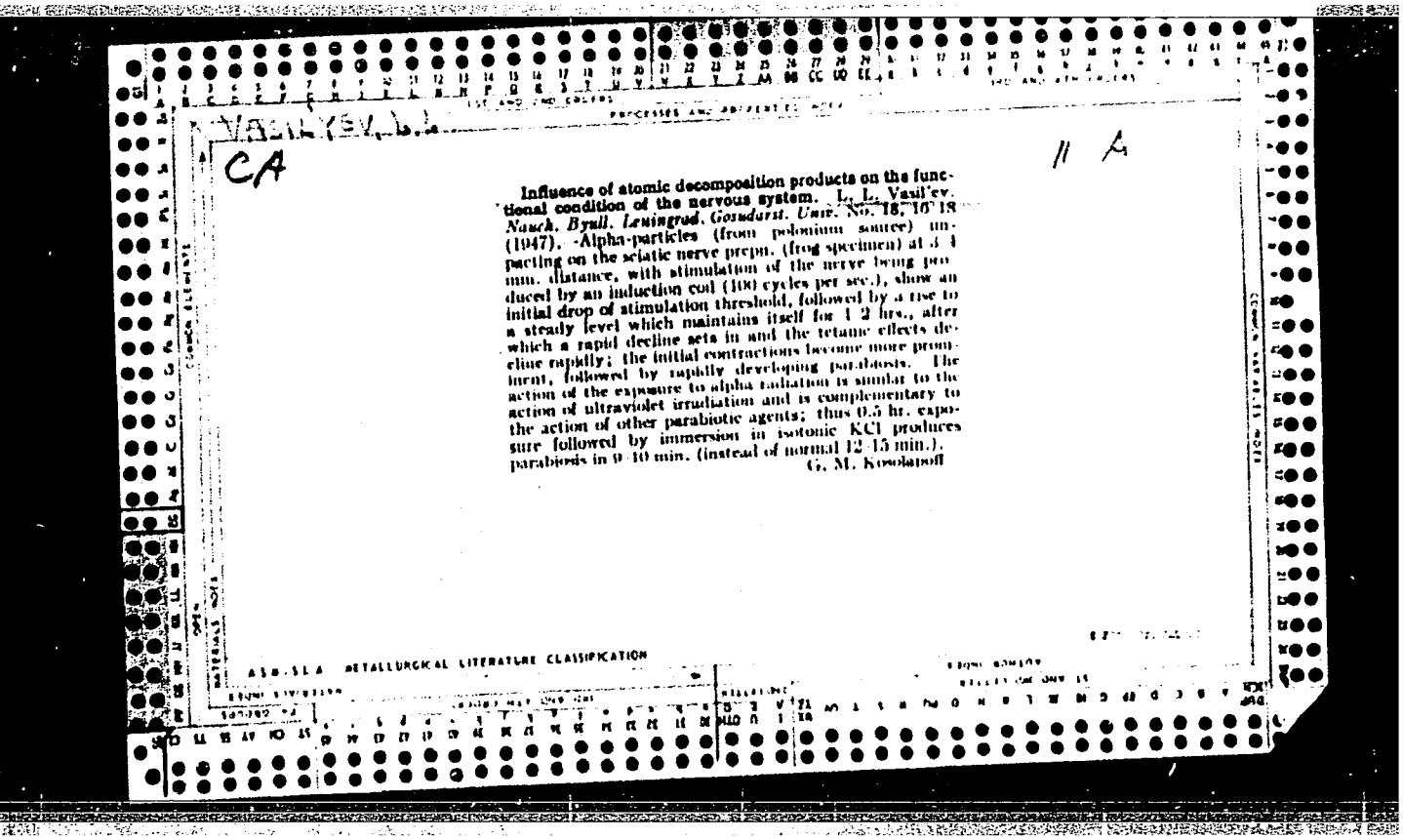
"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L., professor, doktor biologicheskikh nauk.

Interrelationship of irritation, excitation and sensation.
Trudy Gos.inst.po izuch.mozga 15:17-26 '47. (MLRA 7:2)
(Senses and sensation)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6



CA

11 A

Influence of atomic decomposition products on the functional condition of the nervous system. L. L. Vasil'ev. *Nauch. Byull. Leningrad. Gosudarst. Univ.* No. 18, 16-18 (1947). -Alpha-particles (from polonium source) impacting on the sciatic nerve prepn. (frog specimen) at 3-4 mm. distance, with stimulation of the nerve being produced by an induction coil (100 cycles per sec.), show an initial drop of stimulation threshold, followed by a rise to a steady level which maintains itself for 1-2 hrs., after which a rapid decline sets in and the tetanic effects decline rapidly; the initial contractions become more prominent, followed by rapidly developing parabiosis. The action of the exposure to alpha radiation is similar to the action of ultraviolet irradiation and is complementary to the action of other parabiotic agents; thus 0.5 hr. exposure followed by immersion in isotonic KCl produces parabiosis in 9-10 min. (instead of normal 12-15 min.).

G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L., prof.

Work of the laboratory of neuromuscular physiology of the Physiology Institute of Leningrad University. Vest. LGU 3 no.12:146-148 D '48. (MIRA 12:9)

(Muscle--Innervation)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L., professor.

Adaptation and sensitization of nerves to parabiotizing influences.
Nauch.biul.Len.un. no.23:40-42 '49. (MLRA 10:4)

1.Fiziologicheskiy institut im. A.A.Ukhtomskogo.
(NERVES)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.

Anodic blocking and deblocking of a nerve. Uch. zap. Len. un. no.99:46-57 '49. (MLRA 10:2)

1. Laboratoriya nervno-myshechnoy fiziologii Fiziologicheskogo instituta Leningradskogo gosudarstvennogo universiteta.
(NERVES) (ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L. L.

Medicine

Theory and practice of treatment with ionized air. Leningrad, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

PETROV, F.P.; VASIL'YEV, L.L., zaveduyushchiy.

Effect of a low-frequency electromagnetic field on the higher nervous activity. Trudy Inst.fiziol. 1:369-375 '52. (MLRA 6:8)

1. Laboratoriya obshchey nervno-myshechnoy fiziologii.
(Nervous system) (Electromagnetism)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.

Electronarcosis and its theory according Vvedenskii's parabiosis. Fiziol. zh. SSSR 38 no. 2:171-178 Mar-Apr 1952. (CLML 22:3)

1. Leningrad.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.; MALYSHEV, N.N.

Effect of aeroionization on the healing rate of experimentally produced burns. Uch.zap.Len.un.no.138:212-227 '52. (MLRA 9:6)

1.Otdel obshchey fiziologii nervnoy sistemy Leningradskogo instituta mozga imeni V.M.Bekhtereva.
(ELECTROTHERAPEUTICS)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YE', I. L.

Znachenie fiziologicheskogo ucheniia N. E. Vvedenskogo dlia nevropatologii [The significance for neuropathology of the physiological teaching of N. E. Vvedenskii]. Moskva, Medgiz, 1953, 92 p.

SO: Monthly List of Russian Accessions, Vol. 6 No 10 January 1954

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.

[Theory and practice of treatment with ionized air] Teoriia i lecheniia ionizirovannym vozdukhom. 2. perer. i dop. izd. Leningrad, Izd-bo Leningradskogo gos. univ., 1953. 189 p. (MIRA 8:9)

(IONIZATION OF GASES) (THERAPEUTICS, PHYSIOLOGICAL)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

"Relating to the Parabiotic Nature of Elec ronarcosis in ... Animals"
Voprosy Fiziologii i Morfologii Tsentral'noy ..., ... Izd Akad Nauk SSSR, 1953, pp 31-37

The authors used rabbits to study the threshold of cath...ic and an...ic electronarcosis and the effect ... have on it. The animals were subjected to ascending and descending Leduc currents of 70 pulses per second. Cat...ization lowers the subordinated effect of the higher divisions of the nervous system to the adaptation property of the lower divisions, whereas their anodization increases it. The authors found that ether and chloroform have the effect of increasing the cathodic threshold and weakening the anodic electronarcosis. Physical agents increase narcosis by cooling and weaken it by heating. Authors recommend a ...inat on of general electronarcosis and local cathodic nerve parabiosis. (...iol, No 5, Oct 1953)

SO: Sum. 492, 12 May 55

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.

Effect of the central nervous system on development of parabiosis in the peripheral nerves. Zhur. ob. biol. 15 no.4:252-262 Jl-Ag '54. (MLRA 7:9)

(CENTRAL NERVOUS SYSTEM, physiology,
eff. on parabiosis of periopheral nerves)
(NERVES, PERIPHERAL, physiology,
parabiosis, eff. of CNS)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.; SHOSHINA, N.A.[deceased]

Restoring cardiac activity by excitation of the extracardiac nerves.
Uch.zap.Len.un. no.164:58-75 '54. (MLRA 10:3)
(HEART) (VAGUS NERVE) (NERVOUS SYSTEM, SYMPATHETIC)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.

Significance of N.E.Vvedenskii's theories in medicine. Uch.zap.Len.un. no.176:55-67 '54. (NERVOUS SYSTEM) (MLRA 9:9)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.; GAL'VAS, Ye.T.

Cathodic threshold parabiosis of a peripheral nerve depending on the functional state of the central nervous system. Uch.zap.Len.un.ne.176: 136-154 '54. (MLRA 9:9)

1.Iz laboratorii obshchey nervno-myshechnoy fiziologii instituta fiziologii imeni I.P.Pavlova AN SSSR, direktor - akad. K.M.Bykov).
(NERVOUS SYSTEM) (ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6

VASIL'YEV, L.L.(Leningrad)

Development of I.M. Sechenov's theories in the works of N.E. Vvedenskii and his school. Fiziol. zh. SSSR 42 no.1:27-34 Ja 56. (MLRA 9:5)

(NEUROPHYSIOLOGY,
Vvedenskii's theory of parabiosis, role of I.M. Sechenov's research (Rus))
(BIOGRAPHIES,
Sechenov, Ivan, M. (Rus))

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858910003-6"

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VASIL'YEV, L.L.; GAL'VAS, Ye.T. (Blagodatova)

Influence of the central nervous system in anesthesia on threshold parabiosis of the nerve. Trudy Inst. fiziol. 6:5-9 '57. (MIRA 11:4)

1. Laboratoriya obshchey nervno-myshechnoy fiziologii (zaveduyushchiy L.L. Vasil'yev).
(AMOBARBITAL) (NERVES)

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VASIL'YEV, L.L.; SOSNOVSKAYA, Z.A.

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(EXTREMITIES (ANATOMY)--INNERVATION)

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