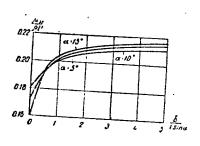
Adjoined Masses of an Underwater Plate for a Flow 5/140/60/000/005/015/021 Around With a Separation of Rays (C111/C222

with respect to A to which the plate was submitted by the fluid during the

(3.2) - 
$$I_y = v_2/v_{22} + \omega/v_{25}$$
, -  $M_A = v_2/v_{32} + \omega/v_{33}$ , then the coefficients  $\mu$  can be set that

then the coefficients  $\mu_{ik}$  can be calculated with the aid of the results obtained by the author. The values of  $\mu_{32}$  and  $\mu_{22}$  in dependence on /1 sin & (cf. figure 1) are given in the figures 4 and 5.



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Card 3/4

Рис. 4

#### CIA-RDP86-00513R001239230013-7 "APPROVED FOR RELEASE: 06/15/2000

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Adjoined Masses of an Underwater Plate for a Flow Around With a Separation of Rays

s/140/60/000/005/015/021 C111/C222

There are 6 figures and 5 Soviet references.

ASSOCIATION:

Nikolayevskiy pedagogicheskiy institut imeni V.G.Belins-

kogo (Nikolayev Pedagogical Institute imeni V.G.

Belinskiy)

October 28, 1958 SUBMITTED:

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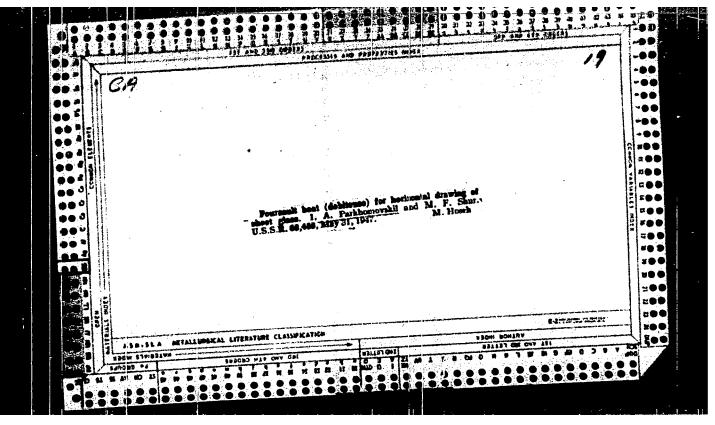
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Title tr.: Buckling of rods by simultaneous actions of lateral and lengitudinal loads.

TL570. N 6 no. 196

SC: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.



GROSSMAN, E.P., M.V. KELDYSH and YA. W. PARKHOMOVSKI

Vibratsii kryla s eleronom. Moskva, 1937.

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Title tr.: Vibration of a wing with an aileron.

QA911.M65 no.337

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

PARKHOMOVSKIY, YA. M., and L. S. POPOV.

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Title tr.: Effect of inertia of control system linkage on the vibration of aircraft, and the design of dynamic balance of rudder elevator and ailcrons.

TL504.T4 1940

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

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"On a Method of Approximate Solution on the Problem of Torsion," Dok. Akad. Nauk, 36, No. 3, 1942.

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			twisting	noment at a cross sculpt is a very	
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PARHON.C.I., acad.: CRACIUN, E., prof.; ASLAN, Ana, prof.; MARRA, Viorica; VELCIU, V.: DAVID, I.: ZAHARIA, Maria; CONSTANTINESCU, Smaranda; TASCA, C.: POPOVICI, M.

Tissular changes and lesions related to the pathology of the aged. Rumanian M. Rev. 3 no.3;3-11 J1-S '59.

(GERIATRICS, pathology)

PARHON, C. 1. , acad.; POSTELNICU, D.; PETREA, I.

Some remarks on the morphology of the anterior pituitary in aged subjects. Rumanian M. Rev. 3 no.3:11-12 J1-S 159.

1. "Prof. Dr. C.I.Parhon" Endocrinology Institute of the R.P.R. Academy.

(PITUITARY GLAND, ANTERIOR in old age)

PARHON, C.I., acad.; NICRA, I.; POSTRINICU, D.

The problem of the significance of involutional morphological changes of the nerve cell. Rumanian M. Rev. 3 no.3:12-13 JI-S '59.

1. Prof. C.I. Parhon Institute of Endocrinology of the R.P.R.

Academy.

(NEURONS in old age)

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U 0..61 u⊃ઈ∄ Catogray= mimin id animal hysiology. the Physiology of Lee. libe. Jour. : Ref Chur-3101., No 23, 1950, 100166 : Parkhon, K. T.: walan, .; Pactyeson, M. 650. C liatitat. : AS USSE. ; Title : Moscular Conditioned Reflex Studies of them. forts of Horrons and Titable Therapy on the Old State Ords. State of Horrons and Titable Therapy on the Old Ords. State of Horrons and Titable Therapy on the Old Ords. State of Horrons, 1950, 476-471 \* Vescular conditioned peffenes (CR) to fell and metronese sounds very shudled on 15 mesons a. otr...t. 17-37 years old and on 40 Hersons 60-12 years old. I relationship between the age of the tested unbjects aur their suffity to develop CR was not fours to exist. However, CR was develoned in younger and middle-uped subjects after 3-4 cabinations, and in older subjects after 0-12 and sore combinations. The reaction to an unconditioned stimulus (cold) lasted in older Card: 1/2

Churtmy : USSR : Human the Anim I Physiology.  $\mathbf{T}$ Category The Physiology of Age. Abs. Jour.: Ref Znur-Biol., No 83, 1958, 106106 Author Inutiation. Pitch C Orin Pub. : Abat root subjects (-8 minutes, while in younger persons it lasted not more than 30-60 seconds. In older (cont) subjects, CR become extinguished comsiderably of faster then in yourger subjects. Novocaine and thyrotherapy accelerated CR development. --A. I. Ryabinovskaya Cardi 2/2

USSR / Human and Animal Physiology. Growth Physiology.

T

Ats Jour : Ref Zhur - Biol., No 15, 1958, No. 69752

Author

: Parkhon, K. I.

Inut Title : Not given : The Struggle for Longevity

Orig Pub

: Priroda, 1957, No 2, 25-30

Abstract

: The causes of aging of the organism are discussed. Starting with the fact that all vital processes are metabolic phenomena, and that pathologic processes, including aging, must be disturbances of metabolism, methods of controlling the aging process directed at improvement of metabolic processes are recommended - hormone therapy, nevocaine, thiamine acids (especially cysteine), and others. In connection with the fact that the hormones exert a marked influence on embryonic growth, it is possible that prolongation of life may be achieved by treating the organism even at this early period of life. -- L. A. Pronin

Card 1/1

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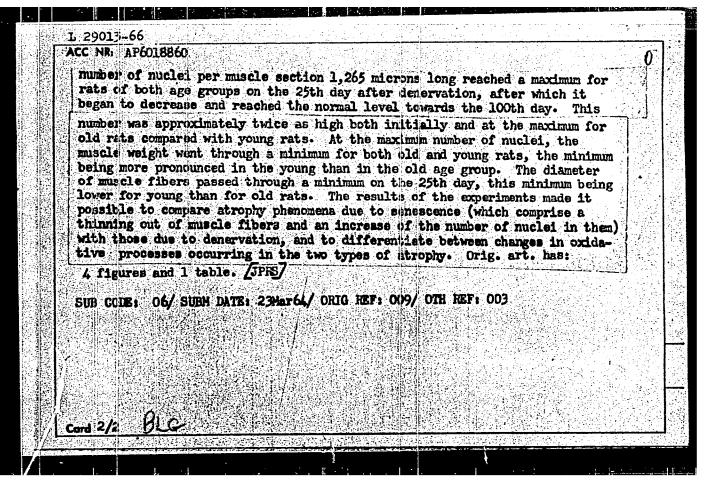
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Course of some physiological and biochemical processes in denervated muscles in old animals during various stages of reinnervation. Vop. geron. i geriat. 4:230-235 '65.

(MIRA 18:5)

1. Institut gerontologii AMN SSSR, Kiyev.

SOURCE CODE: UR/0239/65/051/009/1094/1099 L 29013 ACC NR. APEO18850 AUTHOR: Grishko, F.I.; Parkhotnik, I.I. ORG: Laboratory of Biology, Institute of Gerontology and Experimental Pathology, AMN SSSR, Kiev (Laboratoriya biologii Instituta gerontologii eksperimental'noy patologii AMN SSSR) TITLE; Changes in exidative processes in denervated muscles induced by senescence SOURCE: Fiziologicheskiy shurnal SSSR, v. 51, no. 9, 1965, 1094-1099 TOPIC TAGS: rat, muscle physiology, enzyme ABSTRACT: Oxidative processes in calf muscles of rats 12-15 and 32-37 months old were studied on sacrificing the animals 10, 20-25, 40-50 and 100 days after denervation of the muscles by destroying the scietic nerve 2 cm above its entrance into the calf muscle. As a result of denervation of the muscle, the tissue respiration and its succinodehydrogenase activity first decreased (during the first 10 days after denervation) and then began to increase, finally reaching a level corresponding to the normal. The increases in young animals brought both indices to a level greatly above that for control rats on the 20-25th day after denervation, while these increases above normal, constituting compensatory reactions, occurred only on the LO-L5th day in old animals. The UDC: 616.26+612.74



PARKHOUSE, J.; MACINTOSH, R.

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(HEART-SURCERY) (ANESTHESIA)

PARIHOV, K.I., akademik,

Struggle for long life. Priroda 46 no.2:25-30 P '57. (MIRA 10:3)

1. Direktor Instituta endokrinologii Akademii Rumynskoy Narodnoy Respubliki.

(Longevity)

IMERUSALIMSKIY, A. P.; FARKOVA, E. A. (Novosibirsk)

Pathogenesis of lesions of the gastrointestinal tract in tickborne encephalitis. Klin. med. 40 no.7:130-133 J1 '62. (MIRA 15:7)

1. Iz kliniki nervnykh bolezney Novosihirskogo meditsinskogo instituta i Omskogo nauchno-issledovatel'skogo instituta prirodno-ochagovykh infektsiy.

(ENCEPHALITIS)
(ALIMENTARY CANAL—DISEASES)
(TICKS AS CARRIERS OF DISEASE)

PARKHON-SHTEFANESKU, K.; KORTEZ, R.; PETRESKU, F.

Hysterical paraplegia with an unusually long course. Zhur. nevr.i psikh. 60 no.10:1318-1323 '60. (MIRA 14:1) (PARAPLEGIA) (HYSTERIA)

Partition-Stepanesku, K. [Parhon-Stefanescu, C.]

Psychiatry in old age. Zhur.nevr.i psikh. 59 no.11:1281-1290 '59.

(MIRA 13:3)

1. Psikhiatricheskaya klinika, Bukharest.

(MESTAL DISORDERS in old age)

PARKHOT'KO, V.T.; KHOTYNEIKO, V.M., inzh.

Our methods for training specialists for the new types of traction. Elek. i tepl.tiaga no.7:11 J1 '63. (MIRA 16:9)

1. Depo Dolgintsevo Pridneprovskoy dorogi. (Railroads--Employees--Education and training)

s/0129/64/000/001/0044/0047

ACCESSION NR: AP4010075 AUTHOR: Farkhutik, P. A.

TITLE: The aging of alloys in a nonuniform ultrasonic field

SCURCE: Metallovedeniye i termicheskaya obrabotka motallov, no. 1, 1964, 44-47

TOPIC TAGS: natural aging, artificial aging, aluminum alloys, heat resistent alloys, resonance frequency, elastic oscillations, ultrasonic frequency, magnetostriction emitter, aging aluminum alloys, nonuniform ultrasonic field.

ABSTRACT: The differing views on the ultrasonic effect on the natural and artificial aging of aluminum alloys have led to further investigations in this field involving the use of longitudinal standing waves. Twelve centimeter long rods of the commercial alloy KNN77TYUR, corresponding to the half wavelength of the basic harmonic of the magnetostriction radiator, were used in the study of the nonuniform ultrasonic effect on 1/2

ACCESSION KR: AP4010075

different portions of the same sample. A comparison of the ultrasonic-treated and untreated control samples revealed that under certain conditions ultrasonic oscillations accelerated the aging process of an Khn777YuR alloy 2 to 4 times, depending the aging process of an Khn777YuR alloy 2 to 4 times, depending on the duration of the treatment. At 700C the acceleration of the aging process is particularly noticeable after a 2-hour treatment, and at 750C after one hour. The published data treatment, and at 750C after one hour. The published data (V.S. Yermakov and E.A. Al'ftan, "Mi-Om" (Mathematical Institute, Department of Mechanics, 1958, No. 7) on the possibility of reducing the aging duration of the Khn777YuR alloy 40-50 times reducing the aging duration of the Khn777YuR alloy 40-50 times fact that the hardness of the mentioned alloys, after their fact that the hardness of the mentioned alloys, after their precipitation hardening, is defined as HB 280-320, and in some cases as HB 340.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN BSSR (Physico-technical Institute of the Belorussian Academy of Sciences)

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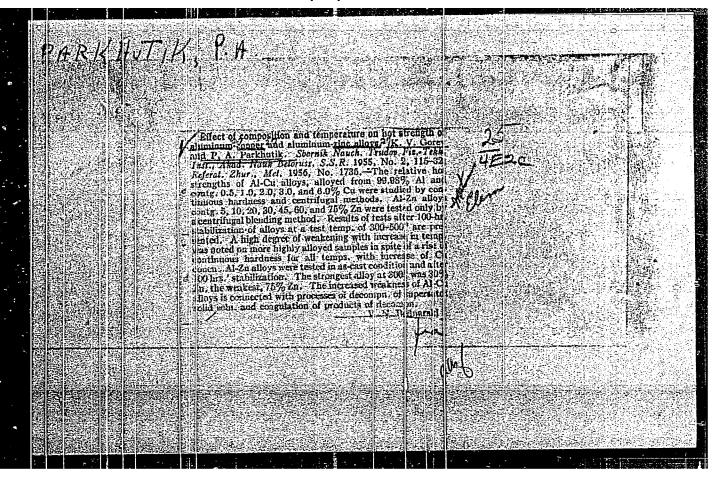
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SOV/137-57-11-22900

Translation from: Referativnyy zhurnal, Metallurgiya. 1957, Nr 11. p 263 (USSR) An Investigation of the Heat Resistance of Cast Aluminum Alloys An investigation of the real Resistance of Cast Administration and Structure (Issledo-in Accordance With Their Constitution and Structure (Issledo-in Accordance With Their Constitution and Structure) Gorev, K.V., Parkhutik, P.A.

vaniye zharoprochnykh svoystv litykh splavov alyuminiya v AUTHORS. TITLE.

zavisimosti ot ikh sostava i struktury) Sb. nauch. tr. Fiz.-tekhn. in-t AN BSSR, 1956, Nr 3, pp

An investigation is made into the hardness in the hot state of PERIODICAL

An investigation is made into the nardness in the not state of Al alloys containing up to 3% Fe, 11% Si, and 4% Mn or 10% Cu, and alloys containing up to 3% Fe, 10% Si, and 4% Mn or short (30-500) and long with uniform addition of 0.5% Mg. At alloys containing up to 3% re, 11% 31, and 7% with of long with uniform addition of 0.5% Mg, on short (30-sec) and long with uniform addition to its expectural etate which is (1-hour) loading, relative to its structural state, which is varied by changing the chemical composition. The allower of cooling the Caetings during criefallization. of cooling the castings during crystallization. The alloys are ABSTRACT: or cooring the castings during crystallization. The anolys are investigated in the cast condition, after stabilization at the test

investigated in the cast condition, after stabilization at the te temperature, and after homogenizing anneal. At 300°C, the temperature, and after homogenizing anneal condition and after hardness of the allows increases in the cast condition and after hardness of the allows increases in the cast condition. temperature, and after nomogenizing anneal. At 30000, the hardness of the alloys increases in the cast condition and after the hardness of the alloys it drops in the homogenized condition whereas it drops in the homogenized condition and after the stabilization. stabilization, whereas it drops in the homogenized condition stabilization, whereas it drops in the homogenized condition Al-Cu with an increase in the rate of crystallization, except for Al-Cu

Card 1/2

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SOV/137-57-11-22460

An Investigation of the Heat Resistance of Cast Aluminum Alloys (cont.)

alloys, in which heat resistance diminishes in all samples with increase in rate of cooling. The rise in the concentration of secondary components leads to an increase in the heat resistance of the alloys in the cast state; the greatest increase in hardness is called forth by addition of components at the outset until the instant at which a continuous network of excess phases is set up in the structure around the initial crystals of solid Al solution. Stabilization at 300° (100 hours) does not change the hardness of Al-Mn alloys and causes an insignificant decrease in Al-Cu and Al-Si alloys and a somewhat more pronounced one in Al-Fe alloys. Homogenizing anneal removes almost completely the hardening due to heterogenization of structure in Al-Si and Al-Fe alloys. In alloys of Al with Mn and Cu, homogenization also induces a considerable drop in hardness, but only with a content of Mn > 1.5 and Cu> 2%. At lower concentrations a considerable decline in hardness is observed. At 1.5% Mn and 2% Cu, alloys in the homogenized state attain maximum heat resistance, whereas a further increase in additions does not result in any noticeable changes therein.

P.P.

Card 2/2

YHFIMOV, Aleksey Nikolayevich; PARKHUTA, Andrey Nikitovich; TILEVICH,
Izrail' Aleksandrovich, TULER, Iszar' Stulevich; FEL'DBLYUM,
Boris Borisovich; SHAPOSHNIKOV, Kas'yan Grigor'yevich; ZAKHAROV,
D.H., inzhener-podpolkovnik, red.; MYASNIKOVA, T.F., tekhn.red.

[Principles of the theory of simplane flight] Osnovy teoria poleta samoleta. Moskva, Voen.izd-vo M-va obor. SSER, 1957. 443 p. (Airplanes--Aerodynamics) (MIRA 11:5)

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PHASE I BOOK EXPLOITATION

341

Yefimov, Aleksey Nikolayevich, Parkhuta, Andrey Nikitovich, Tilevich, Izrail' Aleksandrovich, Tuler, Lazar' Srulevich, Fel'dblyum, Boris Borisovich, and Shaposhnikov, Kas'yan Grigor'yevich

Osnovy teorii poleta samoleta (Principles of the Theory of Aircraft Flight) Moscow, Voyen. izd-vo Min-va obor. SSSR, 1957. 443 p. No. of copies printed not given.

Ed.: Zakharov, D. M., Engineer-Col.; Tech. Ed.: Myasnikova, T. F.

PURPOSE:

This book is intended as an aviation and technical text book on the secondary school level. It may also be used as a textbook in the study of the fundamentals of aircraft flight theory for the flying and technical personnel of the Air Forces and of the All-Union Voluntary Society for the Promotion of the Army, Aviation and Navy. The introduction is intended for readers who embark for the first time upon the study of the fundamentals of aviation. The text is approved as a textbook for military aviation and technical schools by the Chief of the Vuz Administration of the Military Air Force.

Card 1/17

Principles	of the Theory (Cont.)	341
COVERAGE:	The authors discuss the fundamentals of applied gene aerodynamics, the fundamentals of the aerodynamics of craft performance, stability, control, maneuvering fundamentals in tables and 360 figures. There are 29 Sov which are translations.	f propellers, air- light. The book
TABLE OF		
CONTENTS: Introdu	action	3
Initial	Information on Flying Machines	3
Basic F	Parts of an Aircraft and Their Purpose	11
	SECTION I. BASIC INFORMATION ON AERODYNAMICS	
1	Basic Properties of the Air Subject of aerodynamics	24 24
2	2. Basic characteristics of the air (pressure, tempera	ture, density) 24
Card 2/17		

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239230013-7"

2	'hant an	
3.	Basic physical properties of the air (inertness, viscosity compressibility)	, 27
4.	Structure of the atmosphere and variation of the air parame	·
	p, T, and O	30
5.	International standard atmosphere (MSA)	. 33
Ch. I	I Basic Laws of Aerodynamics	36
1.	Preliminary information	36 38 41
	Equation of continuity	38
	Bernoulli's equation	41
4.	Principle of velocity measurement	47
Ch. I	II Visible Pattern of Air Flow	51
1.	Resistance of the air to the forward motion of bodies	51
	Principle of reversibility in aerodynamics. Wind tunnels	51
	Air flow pattern	53
	Basic parts of a flow pattern	53
5.	Air flow pattern of various body forms	57
d 3/17		

_	of the Theory (Cont.)	
Ch. I	V Aerodynamic Forces	62
1.	Frinciples of formation of overall serodynamic force	62
2.	Factors affecting the overall aerodynamic force	64
3.	Formula for the overall aerodynamic force	67
Ch. V	Aerodynemics of the Wing	69
	Geometrical characteristics of the wing	69
	Geometrical and aerodynamic twist of the wing	74
	Angle of attack of the wing	74
_	Pressure distribution along the wing profile	76
	Total aerodynamic force on the wing	81
<i>6</i> .	Displacement of the center of pressure along the chord with vary-	- 0-
	ing angle of attack	82
7.	Components of the total aerodynamic force	83
8.	Lift force of the wing	84
	Frofile drag of the wing	92
	Induced drag of the wing	94
	Total drag of the wing	99
12.	Felationship between aerodynamic forces and their coefficients	101
1 4/17		
/		

	es of the Theory (Cont.)	
13.	Aerodynemic quality of a wing (lift drag ratio)	102
14.	Order of determining the aerodynamic characteristics of a wing in	104
	wind tunnels	104
	Polar curve of the wing	108
16.	Parabola of induced drag	109
17.	Wing high-lift devices (flaps, spoilers, etc.)	109
ıh T	I Aerodynamics of an Aircraft	117
,щ. V	Lift force and total drag of an aircraft	117
2.	Mutual interaction (interference) of the parts of an aircraft	118
3.	Aerodynamic quality of an aircraft (lift drag ratio)	150
4.	Polar curve of an aircraft	120
	Incidence angle of a wing	123
6.	Methods of reducing the parasite drag of an aircraft	123
	SECTION II. AERODYNAMICS OF HIGH SPEEDS	
n t	II Initial Information on Aerodynamics of High Speeds	130
1.	Basic equations of high-speed aerodynamics	130
1 5/17		

Speed of sound	134
	140
The Mach number	143
	146
Stagnation pressure	140
variation of the parameters of air p, T, and the increasing	150
speed.	153
Obtaining supersonic flow	156
Propagation of weak disturbances	159
	160
Shock waves	
The second District	166
II Wing Aerodynamics at high-speed Firsh.	166
Critical Mach number	172
Subsonic flow about a wing	174
Mixed flow in the presence of local and how shock waves	180
Mixed flow in the presence of local and some whole	1.84
	185
wave drag of wing	
Firect of compressibility of actorynamic shares	188
straight wing	
	Stagnation temperature Stagnation pressure Variation of the parameters of air p, T, and with increasing speed Obtaining supersonic flow Propagation of weak disturbances Boundary waves of weak disturbances Shock waves  II Wing Aerodynamics at High-speed Flight Critical Mach number Subsonic flow about a wing Mixed flow in the presence of local shock waves Mixed flow in the presence of local and bow shock waves Supersonic flow about a body Wave drag of wing Effect of compressibility of aerodynamic characteristics of a straight wing

nciples of the Theory (Cont.)	341
8. Use of velocity profiles	193
9. Special features of the aerodynamics of a swept-back v	<b>ring</b> 194
10. Special features of the aerodynamics of a wing of small	ll aspect ratio 200
Ch. IX Aerodynamic Forms of a High-speed Aircraft	202
1. Critical Mach number of an aircraft	205
2. Increasing the M <sub>cr</sub> of an aircraft	2014
3. Aerodynamic arrangement of the aircraft components	205
SECTION III. INITIAL INFORMATION REGARDING AERODYNAMICS	OF PROPELLERS
Ch. X Characteristics of Propellers	210
1. Purpose and principle of action of a propeller	210
2. Basic parts of a propeller	211
3. Geometrical characteristics of a propeller	211
4. Kinematic characteristics of a propeller	215
5. Classification of propellers	216
6. Angle of attack of the blade element of a propeller	217

7.	Angle of attack of the blade element as a function of the flight	
	velocity, the number of revolutions, and the angle of incidence of the blade	219
Ch. X	Aerodynamics Forces on a Propeller	222
	Aerodynamic forces acting on the blade element of a propeller	222
	Aerodynamic forces acting on the entire propeller	223
	Thrust of propeller	224
	Useful power of propeller	227
5.	Power required for rotation of propeller	229
6.	Efficiency of propeller	230
7.	Operation of a fixed-pitch propeller in various flight conditions	231
Ch. X	II Principle of Operation of the Variable-Pitch Propeller (VISh)	235
	Principle of operation of variable-pitch propellers	235
	Comparison of the characteristics of fixed-pitch and variable-	-
	patch propellers	239
	Advantages of variable-pitch propeller	241
<b>4.</b>	Practical use of propellers	243

	s of the Theory (Cont.)	341
	SECTION IV. STEADY MOTION OF AN AIRCRAFT	
1. 2. 3.	III Relationship Between Forces Acting on the Aircraft and the Characteristics of Its Motion The Airplane's axis system Equations of motion of an aircraft Steady and unsteady motion of an aircraft Forward motion of an aircraft	244 244 245 248 249
1. 2. 3. 4. 5. 6. 7. 8.	IV Horizontal Flight of an Aircraft Definition of horizontal flight on an aircraft Diagram of forces acting on an aircraft in horizontal flight Conditions for achieving horizontal flight Speed required for horizontal flight Thrust required for horizontal flight Curve of required thrust Curve of required thrust with consideration of compressibilit Curve of available thrust Method of thrusts of N.Ye. Zhukovskiy	251 251 251 252 253 254 256 257 258 262

11. Range of velocity 12. Excess thrust 13. Two conditions of horizontal flight 14. Factors affecting the characteristics of horizontal flight 15. Definition of climb 16. Diagram of forces which act on an aircraft in climb 17. Conditions for achieving climb 18. Conditions for achieving climb	263 266 266 267 269
11. Range of velocity 12. Excess thrust 13. Two conditions of horizontal flight 14. Factors affecting the characteristics of horizontal flight 15. Definition of climb 16. Diagram of forces which act on an aircraft in climb 17. Conditions for achieving climb	266 267 269
12. Excess thrust 13. Two conditions of horizontal flight 14. Factors affecting the characteristics of horizontal flight  Ch. XV Climb of an Aircraft 1. Definition of climb 2. Diagram of forces which act on an aircraft in climb 3. Conditions for achieving climb	267 269
13. Two conditions of horizontal flight 14. Factors affecting the characteristics of horizontal flight  Ch. XV Climb of an Aircraft 1. Definition of climb 2. Diagram of forces which act on an aircraft in climb 3. Conditions for achieving climb	269
14. Factors affecting the characteristics of horizontal flight  Ch. XV Climb of an Aircraft  1. Definition of climb  2. Diagram of forces which act on an aircraft in climb  3. Conditions for achieving climb	ŕ
1. Definition of climb 2. Diagram of forces which act on an aircraft in climb 3. Conditions for achieving climb	.00
<ol> <li>Definition of climb</li> <li>Diagram of forces which act on an aircraft in climb</li> <li>Conditions for achieving climb</li> </ol>	280
<ol> <li>Diagram of forces which act on an aircraft in climb</li> <li>Conditions for achieving climb</li> </ol>	280
3. Conditions for achieving climb	281
	281
4. Speed required for climb	282
	83
O. AURIE OI CLIMD	84
	85
	<b>8</b> 8
7. Outlieb obecca of the deficient	89
10. Effect of wind on the climb of an aircraft	90
ard 10/17	

nciples of the Theory (Cont.)	341
Ch. VIII. Clidding of an Administr	201
Ch. XVI Gliding of an Aircraft  1. Definition of gliding	291 291
2. Diagram of forces acting on an aircraft in gliding	292
3. Conditions for achieving gliding	5 <b>3</b> 5
4. Speed required for gliding	293
5. Gliding angle	294
6. Two gliding conditions	295
7. Range of gliding	296
Ch. XVII Range and Endurance of Flight  1. Definition and formula of flight endurance	2 <del>99</del> 2 <del>99</del>
<ol> <li>Definition and formula of flight endurance</li> <li>Fuel consumption per hour</li> </ol>	
3. Maxium endurance in horizontal flight	300 301
4. Definition and formula of flight range	302
5. Fuel consumption per km	303
6. Maximum range	306
7. Effect of wind on flight range	307
rd 11/17	<b>,</b> ,
id II/I/	

riples of the Theory (Cont.)	341
SECTION V. EQUILIBRIUM, STABILITY, AND COMTROL	OF AN AIRPLANE
. XVIII Position of Center of Gravity (CG) of an A	irplane 310
1. Center of gravity of an airplane	310
2. Mean aerodynamic chord of a wing	310
3. Position of center of gravity of an airplane	<b>31</b> 3
4. Correction of C G longitudinal position (longitudinal)	dinal shift of the C G) 314
. XIX Equilibrium of an Airplane	317
1. Conception of equilibrium of an airplane	317
2. Longitudinal equilibrium of an airplane	318
3. Transverse equilibrium of an airplane	320
4. Directional equilbrium of an airplane	321
5. Lateral equilibrium of an airplane	323
. XX Stability of an Airplane	325
1. Concept of stability of an airplane	325
2. Longitudinal stability of an airplane	328

30292	es of the Theory (Cont.)
5.	Aerodynamic center of the wing and of the airplane Condition for longitudinal stability of a wing alone Condition for longitudinal stability of an airplane Graphs $M_{2}$ : $f(\alpha)$
8. 9. 10.	Basic factors effecting the longitudinal stability of an airplane Directional stability of an airplane Transverse stability of an airplane Transverse stability of an airplane at large angles of attack Lateral stability of an airplane
1. 2. 3. 4. 5.	Concept of controllability of an airplane  Concept of controllability of an airplane  Principle of operation of the rudder and ailerons  Methods of reducing forces on controls of an airplane  Longitudinal control of an airplane  Balancing curves  Longitudinal control in curvilinear flight  Basic factors affecting the longitudinal control of an airplane

	Directional control of an airplane	374
	Transverse control of an airplane	377
	Transverse control of an airplane at large angles of attack	379 380
11.	Methods of improving transverse control at large angles of attack	300
12.	Relationship between transverse and directional control of an airplane	383
Ch. X	XII Stability and Control of an Airplane at High Speeds	384
1.	Effect of the compressibility of the air on the stability with respect to load factor	384
2.	Effect of the compressibility of the air on the stability with respect to speed	385
	Effect of the compressibility of the air on the control-surface effectiveness	387
	Effect of the compressibility of the air on the hinge moment	389
	Aileron reversal	<b>38</b> 9
6.	Violent banking of airplane at high flight speeds (forced banking)	392

	On the relationship between transverse and directional control- lability in flight at high Mach numbers (inverse banking reaction when pedal is pushed forward) On limiting speed	394 395
	SECTION VI. UNSTEADY MOTION OF AN AIRCRAFT	
	XIII Accelerating, Decelerating, Diving, and Flare-out of an Aircraft	397
	Accelerating of an aircraft	397
	Declerating of an aircraft	398
	Diving of an aircraft	399
4.	Flare-out of an aircraft	399
	IV Take-off of an Aircraft	400
	Stages of normal take-off	400
	Take-off run of an aircraft	400
3.	Take-off of an aircraft (separation from ground)	402
4.	Leveling off of an aircraft	403

	Factors affecting the length of the take-off run Take-off distance	44 44
	Some special features of nose-wheel airplanes with regard to take-off	
h. 2	IV Landing of an Aircraft	Ą
1.	Stages of normal landing	4
	Gliding of an aircraft in landing	4
3.	Leveling of an aircraft	4
<b>4.</b>	Plareout	Ą
5.	Ground contact of aircraft	4
6.	Landing run of an aircraft	4
	Factors affecting the length of the landing run	4
Š.	Landing distance	4
9.	Some special features of nose-wheel airplanes with regard to	
-	lending	4
h.	XXVI Steady Turn of an Airplane	4
1.	Definition of steady turn	4

6-11-58

GORZV, K.V.; REPPA, A.A.; PARKHUTIK, P.A.

Surface hardening of metals by means of electric spark treatement. Sbor.nauch.trud.Fiz.=tekh.inst.AN BSSR no.1:49=70 '54. (MIRA 10:1)

(Metal--Hardening) (Electric spark)

GORNV, K.V.; PARKHUTIK, P.A.

House continue to great und state allegans.

Effect of composition and temerature on the heat resistance of aluminum-copper and aluminum-zinc alleys. Sbor.nauch trud. Fiz.-tekh.inst. AN BSSR no.2:115=132 \*\*55. (MIRA 10:1)

(Aluminum-copper alloys-Testing) (Aluminum-zinc alloys-Testing)

GORRY, K.V.; PARKHUTIK, P.A.

Investigating the heat resistance of cast aluminum alloys in relation to their composition and structure. Shor. nauch. trud.

Fiz.-tekh. inst. AN BESR no.3:192-214 '56. (MIRA 10:6)

(Aluminum alloys--Metallography) (Heat-resistant alloys)

PARICHUTIK, P.A.

New method of fastening specimens during centrifugal testing of the heat resistance of alloys. Zav.lab. 22 no.5:618 '56. (MLRA 9:8)

1. Fisiko-tekhnicheskiy institut Akademii nauk BSSR. (Alloys-Testing)

PARKhuTIK, P.A.

137-58-2-4201

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 276 (USSR)

AUTHORS: Gorev, K.V., Yanchenko, N.I., Parkhutik, P.A.,

Mendeleyev, L.T.

TITLE: How Heat-treatment Parameters Affect the Properties of Pistons

Made from Alloy AL-25 (Vliyaniye usloviy termoobrabotki na

svoystva porshney iz splava AL-25)

PERIODICAL: Mashinostroitel' Belorussii, Nr 2 (3), 1957, pp 114-121

ABSTRACT: To learn if it would be feasible to eliminate the heating operation from the quenching process, comparative tests were made of the mechanical properties ( $O_b$ , HB) of sample pistons made from AL-25 alloys, wherein the pistons were cooled immediately after being chill-cast in air, in hot water, and in cold water.

Suggested is a new procedure for heat-treating pistons which consists in quenching them in the water from the chill mold, then

aging them 4 hours at 210±10°C.

P. P.

1. Steel alloys--Frocesses 2. Pistons--Properties 3. Pistons --Heat treatment

Card 1/1

PARKHUTIK,

AUTHOR: Parkhutik, P. A., Candidate of Technical Sciences. 129-8-10/16

TITLE: Annealing of heat resistant alloys of aluminium with iron. (Otzhig zharoprochnykh splavov alyuminiya s zhelezom).

PERIODICAL: "Metallovedeniye i Obrabotka Metallov" (Metallurgy and Metal Treatment), 1957, No.8, pp.37-40 (U.S.S.R.)

ABSTRACT: Alloys of aluminium with eutectic iron are characterized by negligible solubility of the components in the solid state (the eutectic consists in this case of aluminium and the chemical compound FeAl, which contains 1.75% Fe). It can, therefore, be assumed that on heating Al-Fe alloys the diffusion processes, which are linked with the interaction of co-existing phases, will be negligible. Annealing will not cause any appreciable change in the shape and the character of the distribution of the structural components and thus also it will not bring about any appreciable change in the properties of these alloys. The author studied the high temperature strength by testing the long duration hardness, es suggested by Bochvar (1) and the method of long duration The alloys were prepared from 99.7% strength at 300 C. pure aluminium and cast into a metallic mould. The hot hardness of the aluminium containing about 0.18% Fe and also of alloys containing 0.5, 1, 1.5, 2 and 3% Fe was measured

Card 1/3

CIA-RDP86-00513R001239230013-7"

APPROVED FOR RELEASE: 06/15/2000

Annealing of heat resistant alloys of aluminium with iron. (Cont.) 129 - 8 - 10/16

in the as cast state without heat treatment, in the state after stabilisation at 300 C for 100 hours and in the state after homogenization at 600 C for 20 hours, followed by cooling in the furnace to room temperature. The tests were carried out in a Brinell type press with a 10 mm ball and 130 kg loading for durations of 1 hour and 30 secs respective-The highest long duration hardness was observed for the specimens in the as cast state; stabilisation at 300 C for 100 hours reduces appreciably the hardness of alloys with high iron contents, whilst homogenization annealing at 600 C brings about a still sharper reduction of the long duration hardness of the Al-Fe alloys which were originally rapidly cooled during casting into the mould. The graph, Fig.1, shows the change in hardness at 300 C of Al-Fe alloys as a function of the composition (0 to 3% Fe) and the state (as cast, stabilisation annealed at 300 C for 100 hours, homogenization annealed at 600 C for 20 hours). The results of strength tests of alloys containing 1.5 and 3% Fe respectively are also given for the material in the as cast and in the homogenized states. The obtained results on the long duration strength confirm qualitatively the results of

Card 2/3

Annealing of heat resistant alloys of aluminium with iron. (Cont.) 129 - 8 - 10/16

long duration hardness tests and indicate that homogenization of the alloys near to the eutectic temperature leads practically to a complete loss of the heat resistance of cast alloys of aluminium and Fe. According to Bochvar, A.A. (1) homogenization and hardening leads to a reduction of the high temperature strength in cast Al-Cu alloys. Gorev, K.V. and Parkhutik, P.A. (2) obtained similar results in investigating alloys of Al with Si, Al with Mn etc. Therefore, the general conclusion can be made that homogenization annealing is an undesirable treatment from the point of view of improving the high temperature strength of cast There are 2 figures, 1 table and 3 references, all of which are Slavic.

ASSOCIATION: Physico-Technical Institute of the Ac.Sc. of Byelo-Russia. (Fiziko-Tekhnicheskiy Institut AN Belorusskoy SSR)

AVAILABLE:

Card 3/3

SOV/137-58-10-21654

A CONTROL OF THE CONTROL OF THE PROPERTY OF

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 172 (USSR)

AUTHORS: Gorev, K.N., Parkhutik, P.A.

TITLE: The Effect of the Structural Nature of Certain Aluminum Alloys

on Their High-temperature Characteristics (Vliyaniye kharaktera struktury nekotorykh splavov alyuminiya na ikh svoystva

pri vysokoy temperature)

PERIODICAL: V sb.: Legkiye splavy, Nr 1, Moscow, 1958, pp 172-185

ABSTRACT: A summary of results of studies dealing with hot hardness (HH) of Al alloys (A) (subjected to transient and prolonged load-

ing) as a function of their chemical composition, the conditions of crystallization from the liquid state, and heat treatment. Binary Al A's with Fe, Si, Mn, Cu, and an addition of 0.5% Mg were investigated in their cast state after a stabilizing anneal at the temperature of the experiment and a homogenizing anneal

at the temperature of the experiment and a secondary components increases the heat-resistance (HR) of cast A's; the greatest increase in HR results from the addition of elements to the A prior to the formation of a continuous net-

Card 1/2 work of excess phases surrounding the primary crystals in a

SOV/137-58-10-21654

The Effect of the Structural Nature of Certain Aluminum Alloys (cont.)

solid solution. Stabilization annealing for 100 hours at testing temperature (300°C) does not affect the HH of Al-Mn and lowers the HH of Al-Cu and Al-Si A's by an insignificant amount, the greatest reduction of HH is observed in the Al-Fe A. High-temperature anneal almost completely eliminates the hardening produced in Al-Fe and Al-Si A's by heterogenization of their structure. Owing to the weakening of the action of interdendritic layers of excess phases, homogenization anneal of Al-Mn and Al-Cu A's results in a considerable reduction of their HH, providing that Mn and Cu are present in amounts greater than 1.5 and 2%, respectively. At smaller concentrations of Mn and Cu, the HH value remains large owing to the formation of a substructure which appears in these A's as a result of decomposition of the super-saturated solid solution of Al. As the rate of crystallization is increased, the HR of cast A's which have been annealed at 3000 becomes greater, while the HR of A's in homogenized state is reduced. The only exception is the Al-Cu system the HR of which is reduced in any stage as the cooling rate is increased during solidification. Variations in HH which depend on conditions of manufacture and subsequent heat treatment of the A's are compared with changes occurring in the structure of the A's as a result of the factors indicated. 1. Aluminum alloys -- Mechanical properties -- Analysis 2. Aluminum alloys--Structural analysis 3. Aluminum alloys P.P. 2. Hardness Card 2/2 -- Thermodynamic properties

PARKHUTIK, P.A., [Parkhutsik, P.A.], kand.tekhn.nauk

Structure of aluminum-iron and aluminum-manganese alloys as related to composition and conditions of crystallization. Features of the crystallization of eutectic alloys of real systems. Vestsi AN BSSR. Ser. Fiz.-tekh. nav. no. 4:99-108 '60. (MIRA 14:1)

(Aluminum-iron alloys) (Aluminum-manganese alloys)

Effect of heat treatment on the heat resistance of iron and nickel base alloys. Shor, nauch, trud, Fiz.-tekh.inst. AN BSSR nc.7:

(MIRA 15.7)

(Alloys--Hardening) (Heat-resistant alloys)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239230013-7"

K. RESTANDED LANGUAGE

PARKHUTIK, P.A., kand.tekhn.nauk; ZAKHAROVA, A.F., inzh.

Heat treatment of AL9 alloys. Metalloved. i term. obr. met. no.5:38-40 My '62. (MIRA 15:5)

1. Fiziko-tekhnicheskiy institut AN Belorusskoy SSR. (Aluminum alloys-Heat treatment)

18.1210

s/123/62/000/014/004/020

AUTHORS:

Parkhutik, P. A., Zakharova, A. F.

TITLE:

The effect of the heat-treatment conditions on the properties of

the AJI 9 (AL9) alloy

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 14, 1962, 22, abstract

14A139 ("Avtomob. prom-st'", 1962, no. 2, 34 - 36)

The authors present the results of investigations for cutting down TEXT: the heat-treatment procedure of the AL9 aluminum alloy on account of a reduction in the holding time prior to hardening and of the ageing time. It is pointed out that optimum mechanical properties of AL9 alloy specimens  $\delta_b = 25 - 27 \text{ kg/mm}^2$ , HB 85 - 90 and  $\delta = 1.5 - 2.0\%$  are obtained with hardening at 535°C (holding time 4 hours) and ageing at 170 and 185°C (with 4 - 6 and 2 - 4 hours holding). The cast AL9 alloy will harden without quenching. For parts which are of no special importance and which do not require a particular surface finish, the following heat-treatment conditions are recommended: tempering at 170 and 185°C in the course of 6 - 8 and 2 - 4 hours. [Abstracter's note: Complete translation]

Card 1/1

#### S/129/62/000/005/006/011 E073/E535

AUTHORS: Parkhutik, P.A., Candidate of Technical Sciences and

Zakharova, A.F., Engineer

TITLE: Heat treatment of the alloy ANG (AL9)

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,

no.5, 1962, 38-40

TEXT: Standard specimens (200) cast into earthen moulds with various contents of silicon and magnesium (within the limits of the specification FOCT (GOST) 1497-42) were investigated for hardness and strength after the following heat treatments (the skin was not machined off): 1) quenching after holding at 535°C for four hours; cooling in water to 60-40°C; ageing at 150, 170, 185 and 200°C for 2, 4, 6 and 8 hours; 2) ageing of specimens in the as-cast states at 150, 170 and 185°C with the same holding times; 3) quenching in water from 535°C after holding for 40, 60, 90, 120 and 180 min; ageing at 170°C for 2,4,6 and 8 hours. It was found that tempering at 150°C does not ensure full strengthening of the quenched alloy. The highest strength is achieved after ageing for two hours at 170 and 185°C Card 1/2

Heat treatment of the alloy AL9 S/129/62/000/005/006/011 E073/E535

and in the latter case the strength decreases appreciably with increasing tempering time above four hours. The highest hardness was achieved for specimens aged at 170°C for durations of 4-6 hours. The mechanical properties of specimens quenched, after holding for 1 to 2 hours at 535°C, in water of 40 to 60°C, followed by ageing at 170°C for 4 to 6 hours are in accordance with standard specifications; the elongation is somewhat higher. Due to supercooling during crystallization, in the as-cast state the alloy strengthened considerably after ageing without quenching; the best properties were achieved by tempering at 170 and 185°C with holding times of 6-8 and 2-4 hours and this treatment is recommended for components which are not highly loaded. Introduction of the described accelerated heat treatment cycle increased appreciably the productivity of heat-treatment furnaces and the utilization of electrical energy. 4 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN Belorusskoy SSR (Physico-technical Institute AS Belorussian SSR)

Card 2/2

#### PARKHUTIK, P.A.

Aging of alloys in a nonuniform ultrasonic field. Metalloyed. i term. obr. met. no.1:44-47 Ja '64. (MIRA 17:3)

1. Fiziko-tekhnicheskiy institut AN BSSR.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239230013-7"

PARKHUTIK, P.A.

Structure of the eutectic grain in metallic alloys. Dokl. AN RSSR 8 no.4:250-253 Ap '64. (MIRA 17:6)

1. Fiziko-tekhnicheskiy institut AN BSSR. Predstavleno akademikom AN BSSR K.V. Gorevym.

L 02513.67 EWT(n)/EWP(w)/T/EWP(t)/ETI 1JP(c) JD/WW/HW/EM

ACC NR:

AR6023329 SOURCE CODE: UR/0276/66/000/003/B028/B028

AUTHOR: Gorev, K. V.; Parkhutik, P. A.

TITLE: Effect of elastic vibrations on precipitation hardening of alloys with respect to nonuniformity in the distribution of stresses generated by ultrasonic waves

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 3B208

REF SOURCE: Sb. Metallovedeniye i term. obrabotka met. Minsk, Nauka i tekhnika, 1965, 64-76

TOPIC TAGS: high temperature alloy, ultrasonic vibration, vibration effect, dispersion hardening, iron base alloy, nickel base alloy, stress distribution

ABSTRACT: The authors studied the effect of ultrasonic vibrations on precipitation hardening of high-temperature alloys and also the effect which nonuniformity in elastic stresses in various cross sections of a specimen has on aging results. Aging at 700°C was studied in two groups of experimental specimens based on iron and one group based on nickel. It is shown that ultrasonic vibration at a frequency of 20 kc intensifies the process of precipitation hardening in high-temperature alloys in the first stages of aging (h-6 hours at 700°C) and accelerates hardening of it iron-based alloys by a factor of 2-3 and hardening of nickel alloys of the Nimonick

Card 1/2

UDC: 621.789

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ACC NR:

AR6023329

type by a factor of up to 4. Further aging is accompanied by coagulation of the finely dispersed hardening phases and ultrasonic vibrations have no significant effect on the aging process. There is no observable effect due to ultrasonic vibrations on increasing the hardness of alloys aged at high temperatures. Hardening brations on increasing the hardness of alloys aged at high temperatures. Hardening of specimens subjected to the effect of ultrasonic vibrations is the same as that for specimens subjected to aging alone for a correspondingly longer duration. It is shown that the accelerating effect which ultrasonic vibrations have on precipitation hardening processes in the alloys is nonuniformly distributed throughout the specimens. The maximum effect is observed in node sections of the specimen where the highest mechanical stresses take place. These stresses are absent at points with maximum vibrational amplitude. 9 illustrations. [Translation of abstract]

SUB CODE: 11, 20

Card 2/2 eg/v

ACC NR: AP7002885

SOURCE CODE: UR/G201/66/000/004/0129/0131

AUTHOR: Lubenskiy, M. Z.; Parkhutik, P. A.

ORG: none

TITLE: Thermal expansion of AL10V alloy modified with titanium, zirconium and

cerium

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 4, 1966, 129-131

TOPIC TAGS: aluminum alloy, titamium containing alloy, zirconium containing alloy, cerium containing alloy, thermal expansion, aluminum alloy thermal expansion

ABSTRACE: The thermal expansion of specimens of AL10V aluminum alloy modified with 0.02, 0.05, 0.1, 0.3, 0.5 or 1.0% of titanium, zirconium or cerium has been tested in temperature ranges of 20—100, 20—200, 20—300 and 20—400C. It was found that modifying with 0.05—0.1% of zirconium or titanium lowers the coefficient of linear expansion by 5—7% as compared with unmodified AL10V alloy. A further increase in titanium or zirconium decreases the coefficient of expansion to a point where it becomes the same as that of unmodified alloy. Cerium has little or no effect on the coefficient of expansion, except at 20—100C, where a slight decrease of linear expansion was observed. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: 07Sep66/ ORIG REF: 011

Cord 1/1

Mechanism of the formation of sutection in binary alloys. Fiz. met. PARKIUTIK, P.A. i metalloved. 18 no.2:308-311 Ag 164.

(MIRA 18:8)

1. Fiziko-tekhnicheskiy institut AN BSSR.

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ACC NRI APOC	033069	(N)	SOURCE CODE	: UR/0201/66/000/003/0074/0	)   
AUTHOR: Parki ORG: Physico TITLE: Effect SOURCE: AN B TOPIC TAGS: plastic stren ABSTRACT: The tions of tita structure of The preparati the percentage elongation for up to 0.3 - 0 at higher per hardness is	technical t of rare SSR. Vest aluminum gth/ ALLC he authors him of the ge of add or differ 0.4% of t reentages 10%, and on of the e microst 2 tables.	Institute AN metals on the si. Seryya fire alloy, antiwer of alloy and minum alloy AI e test ingots itive are given the additive in the additive in the endurar modification ructure in the	BSSR (Fiziko-teknne properties of the zika-teknnichnykh nar additive, endurates of experiments of ium, and cerium on lov, tested in the is described. The en, and a table of the sof additives is insproves the hardness has no further effected by the additive acast state are in	nce test, ultimate strength on the influence of small add the properties and macroscop cast and heat-treated states plots of the hardness against the ultimate strength and of included. The results show to soft the heat-treated alloy, ect. The average increase interaction action of the column of	ties.

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VO DE SEE SON GENERAL ÉNVENIEN DE LA COMPANSA.

ACC NR: AR6027504

SOURCE CODE: UR/0137/66/000/004/1019/1020

AUTHOR: Gorev, K. V.; Parkhutik, P. A.

TITLE: Effect of elastic oscillations on the dispersion strengthening of alloys, taking into account the discontinuous distribution of stresses induced by ultrasound

SOURCE: Ref. zh. Metallurgiya, Abs. 41131

REF SOURCE: Sb. Metallovedeniye i term. obrabotka met. Minsk, Nauka i tekhnika, 1965, 64-76

TOPIC TAGS: ultrasound, dispension hardening, metal aging, elastic oscillation, iron containing alloy, nickel containing alloy

TRANSLATION: By measuring hardness, a study was conducted on aging at 700°C after quenching samples of two groups of Fe-base experimental alloys, and one nickel-base alloy. The first alloy contained (wt %): C--0.4, Ni--9.7, Mn--1.9, Cr--13.6, V--0.09 loy. Ti--0.9, Mo--3.0, Nb--0.8; the second alloy had a lower Mn content and a higher Ni content, and was also alloyed with V and Al; the third, a Ni-Cr alloy, was strengthened with 1.9% Al and 2.6% Ti. A portion of the samples were subjected to aging with superimposed ultrasonic oscillations of 20 KHz for periods ranging from 5 min to 6 hr. It was established that ultrasonic oscillations of 20 KHz frequency intensitied the dispersion hardening process in the first stages of aging (4-6 hr at 700°C)

UDC: 669.15+669.245].017.3:521.785.78:621.785.2

**Card 1/2** 

CC NR: AR6027504	·_
high temperature alloys, and accelerated the strengthening of Fe-base alloys by 2 times, and up to 4 times for the nimonic type Ni-alloys. During further aging, companying the coagulation of finely dispersed strengthening phases, the effect of trasound on accelerating the aging process was insignificant. The maximum effect trasound at the specimen junctions where the largest mechanical stress was located. Tulupova.	
JB CODE: 11,13	
Card 2/2	

MARKEVICH, O., starshiy nauchnyy sotrudnik; PARKILOVSKIY, A., inzh.

Are all the resources fully utilized? Obshchestv.pit. no.12:48-50 (MIRA 13:12)

1. Nauchno-issledovatel skiy institut torgovli i obshchestvennogo pitaniya (for Markevich). 2. Upravleniye obshchestvennogo pitaniya Ministerstva torgovli RSFSR (for Parkhilovskiy).

(Restaurants, lunchrooms, etc.)

BASIN, Kirill Borisovich; PARKIN, F.I., red.

[Rebellious battalion] Miateshnyi batal'on. Moskva, Voenizdat, 1965 110 p.

(MIRA 18:10)

STARCHAK, Ivan Georgiyevich, polkovnik; PARKIN, P.I., red.

[From the sky into battle] S neba - v boi. Moskva,
Voenizdat, 1965. 181 p. (MIRA 18:12)

32626 \$/137/61/000/011/104/123 A060/A101

18.8300

AUTHOR:

Parkins, R.

TITLE:

Corrosion cracking in mild steels

PERIODICAL:

Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 49-50, abstract 111328 (V sb. "Korrozion. rastreskivaniye i khrupkost'", Moscow,

Masshgiz, 1961, 132 - 148)

The example of corrosion cracking of mild steels in nitrate solutions is used to analyze the mechanism of corrosion cracking of steel, the causes of anode type action of the corrosive medium upon metal. A description is given TEXT: of the metallurgical factors affecting the process of corrosion cracking: the influence of carbon content, of the nature of carbide distribution, the effect of applied stresses and of cold-working. A microstructure study of the corrosion cracking of mild steels is carried out. A proposed mechanism of intercrystalline corrosion is considered, as well as the data supporting the hypothesis of distortion of grain boundaries, and the intercrystalline corrosion. Under corrosion cracking of mild steels in nitrate solutions, the carbide particles, plastic deformations, and applied stresses increase the distortion of the transitional

Card 1/2

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32626 S/137/61/000/011/104/123 A060/A101

Corresion cracking in mild steels

structure of the grain boundaries, causing an increase of the energy sufficient for concentrating the corresion along the less inert grain boundaries. The formation of Fe nitrate as the ancie corrosion product promotes a rise in the acidity the solution at the crack vertices, as result of which the corrosion process is not stopped. Consequently, the crack may continue to develop to the extent of several atomic distances under the simultaneous action of corrosion and of mechanise veral atomic distances under the simultaneous action of corrosion and of mechanical failure, so that the segments of grain boundaries with the displaced atoms, which may be considered as microcracks, are joined, forming a single macrocrack. There are 32 references.

V. Tarisova

[Abstracter's note: Complete translation]

1

Card 2/2

PARKINS, W.

\*Mass Isolation of Isotopes by Electromagnetic

Methods.\*\* (US) USPEKHI FIZ. NAUK, 35, NO. 4, 1948.

Methods.\*\*

MITSIO NAKAMURA; SOICHI KHOSOI; BAKLI, A.R.; PARKINSON, U.;
ATKINS, G.B.; KII PINEN, Urkho; PERGYUSOF, D.D.;
MAKVEYG, Amos; T/ MINER, Mauro; ISKARO, Eubens; MILLER, Armando

Significance of the Fifth World Trade-Union Congress to the workers. Vsem. prof. dvizh. no.8:7-14, Ag '61.

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Abstracted in MAR "Treasure Island", on file in Library of Courses,
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Art.or

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I.st Title : Preliminary Results of the Stady of Variaties of Berry

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Orig Pub

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Abstract

: Results are cited of the variety trials of baerry coltures at the "Polli Experimental base (Aboyaskiy Rayon) where 156 forms and varieties of gooseberry, 98 - of carrant, 78 - of strawberry and 66 - of raspberry are concentrated. Among the gooseberry varieties (Gross daria reclinata, G. cynosbati, G. divaricata, G. hirtella, G. sercirubra, G. acicularis, G. subvestiana, G. arcuata and G. inernis) the following stood o t as being resistant to Sphaerotheca: Amerkanskiy gornyy, Shtambovyy, Chërnyy

Card 1/2

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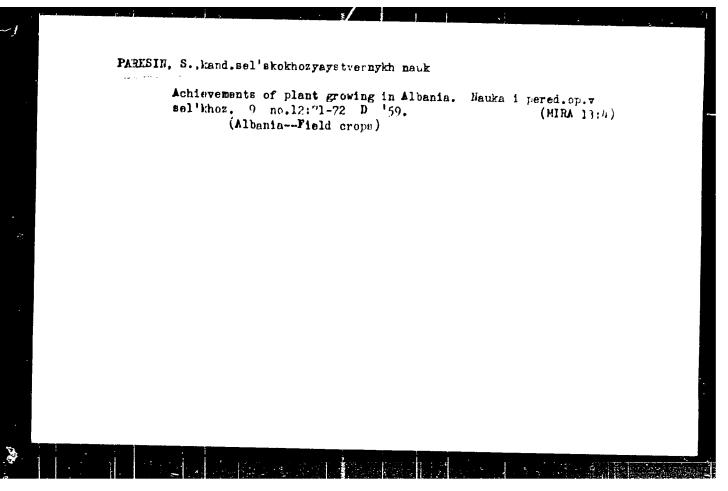
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22002-66 ENT(n)/ENP(j)/T/ETC(m) ACCESSION NR: AP5024507	UR/0191/65/000/010/0040/0042 678:621. 3. 004. 15 2 /
AUTHOR: Khaykin, A. M.; Parksl	neyan, Kh. E.
TITLE: Effectiveness of utilizing (	ass-reinforced plastics in electrical engineer-
ing SOURCE: Plasticheskiye massy, I	no. 10, 1965, 40-42
ed wire, electric engineering,	eloth, insulating material, glass fabric, insulat- ectric equipment, polyester plastic, epoxy plas- lation, minimum product, glass product, polymum,
ABSTRACT: This review of applin the electrical industry includes	ications of various glass-reinforced plastics s comparisons of 1959 and 1963 consumptions, materials, and a few requirement projections.
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ANDRIANOV, Kuzima Andrianovich. Prinimali uchastiye: PARKSHEYAN, Kh.R;
ROMANOV. R.G.; SEMENKO, P.Ya.; ZABYRINA, K.I. red.;
KALITVYANSKIY, V.I., red.; KORITSKIY, Yu.V, red.; KHVAL KOVSKIY,
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(Electric insulators and insulation) (Polymers)

s/196/62/000/003/002/012 E194/E155

AUTHOR:

Parksheyan, Kh.R.

TITLE :

Determination of the probable demand for electrical

insulating materials

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika

no.3, 1962, 6, abstract 3 B33. (Vestn.

elektroprom-sti, no 9, 1961, 24-26)

Mean data are given for the consumption of varnished cloth, laminated plastics and micanites in various branches of the national economy and about the specific consumption of micabased insulating materials for the years 1951-1959. Formulae are given for calculating the future demand of electrical insulating materials. It is concluded that: 1) the main index to determine the future demand for insulating materials should be their specific calculated ratio; 2) at present the main index can be the ratio between the output of the individual types of insulating material and the gross output of the entire electro-technical industry; 3) the completeness and reliability

Card 1/2

Determination of the probable demand  $\frac{S/196/62/000/003/002/012}{E194/E155}$ 

of the calculations depend on the reliability of the future estimates for output of the entire electro-technical industry, with correct allowance for trends of technical progress not only in the manufacture but in the application of insulating materials.

[Abstractor's note: Complete translation.]

Card 2/2

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