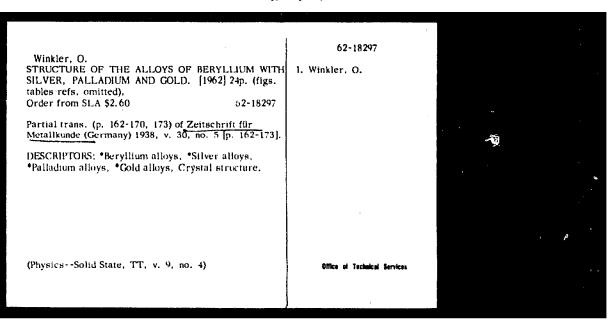
APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100330031-1



Hanganese Aluminium System, by W. Koster, W. Bechthold.

GERMAN, per, 2 fuer Matt Metallkunde, 1938, pp 294-296.

CSIRO/No 6102

Sci-Materials & Metallurgy

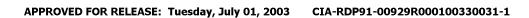
229,856



X-Ray Determinations of the Temporary Modification of the Residual Stress Condition in Alternating Bending Stress, by Fritz Gisen, Richard Glocker, 6pp GERMAN, per, Zeitschrift fur Metallkunde, Vol 30, 1938, No 9, pp 297-298 SIA TT-64-18182

Sci - Mech May 67

346,689



Plasticity and Mosaic Structure of Crystals, by Albert Kochendorfer, 20 pp.

GERMAN, per, Z Metallkunde, Vol XXX, 1938, pp 299-305.

AEC Tr 1754

Scientific - Physics Jan 54 CTS/DEK

Contribution to the Problem of Cold and Hot Hardening on the Basis of Thermoelectric Investigations, by A. Durer, W. Koster.

GERMAN, per, Z fuer Metallkunde, Vol XXX, No 9, 1938, pp 311-319.

TIL T 5036

Sci - Engr

Jan 61

137,373

A Device for the Direct Evaluation of Damping, by Fritz Forster, Helmut Breitfold, 5 pp.

GERMAN, per, Z fuor Metallkunde, Vol XXX, 1938, pp 343-345.

Pept of Commerce Not Bur of Stendards

56,818

Sci - Engr

Dec 57

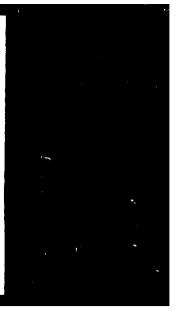
The Cobalt Corner of the Iron-Cobalt-Vanadium System, by Werner Koster, Karl Lang, 4 p.

GERMAN, per, Zeit fur Metallkunde, 1938, Vol XXX, No 9, pp 350-352.

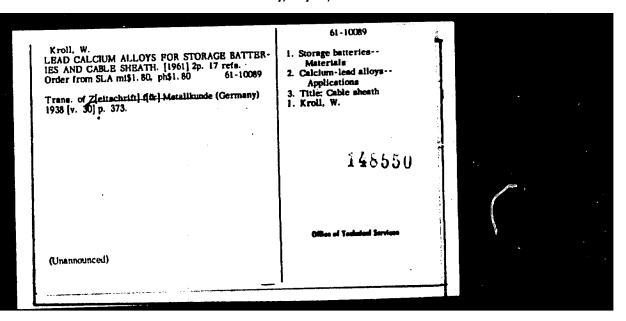
SIA 59-20232

Sci Mar 60 Vol 2, No 11

109,641

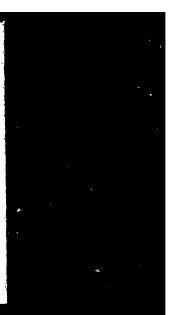


APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100330031-1



The Diffusion of Mg in Al, by W. Bungardt. GERMAN, per. Z. Metallkde.. 30, 1938, pp 377-383. *NBS TT 70-57347

Sci-Mat Aug 70



The Solubility of Hydrogen in Aluminum and a Yew of Its Alloys, by Walter Baukleh, Friedrich Oesterlen, 10 pp.

GERMAN, per, Zeitschrift für Metallkunde, Vol XXX, 1938, p 389.

B.L.A. Tr 972

Sci - Metals/Minerals 33,015

Apr 56

Uneven Distribution of Zinc on Sheets During Galvanizing, by EMEXXXXX H. Bablick.

GERMAN, Zeitschrift Metallkunde, 1939.

Brutcher Tr 845

Scientific - Min/Metals

\$1.10

Hot-Rolling of Manganese and Its Deformable Alloys, by W. Kroll, 2 7 pp.

CERMAN, per, Z fur Metallkunde, Vol XXXI, No 1, 1939, pp 20-23.

STA 60-14620

Sci Feb 62 Vol III, No 11

184,692

Impact Bending Strength of Zinc Alloys at Low Temperatures, by K. Bayer, A. Burkhardt, 4 pp.

ORRHAN, per, Zeitschmift für Metallkunde, Vol XXXI, No 5, May 1939, p 131.

BIA It 1817 Jan 1957 46,298

Sci - Min/Met Apr 1957

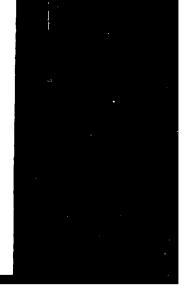
New Data on the Welding and Soldering of Zinc Aluminium and Magnesium, by Karl Heinemann, 5 p.

GERMAN, per, Zeit fur Metallhande, 1939, Vol XXXI, No 5, pp 141-143.

STA 59-20337

8c1 Mar 60 Vol 2, Ho 12

109,182



The Electric Welding of Copper-Clas Steel Sheet, by W. Lassel, 8 pp.

GERMAN, por, Z Motallkunde, Vol XXXI, No 5, May 1939, pp 143, 144.

SLA 2665

Sci - Min/Mat, Ragr

58,447

Beb 58

On the Recovery and the Recrystallization of Cold Worked Mickel, by H. Miller, 34 pp.

HERMAN, per, Z Metallkunde, Vol XXXI, Ho 6, Jun 1939, pp 161-167.

SLA 57-321

Sci - Min/Mat

58,431

Feb 58

On the Effect of Annealing on Electrolytic Nickel, by W. Koster, 13 pp.

MUSCEMI, per, Z Metallkunde, Vol XXXI, No 6, 1939, pp 168-170.

ATS-311308 BLA 57-722

Sci - Minerals/Metals Oct 57

54,257

Superposition of Cold Hardening and Precipitation Hardening of Iron-Mickel-Copper Permanent Magnet Alloys, by O. Dahl, 36 pp.

ORRMAN, per, Z Metallkunde, Vol XXXI, Jun 1939, pp 192-203.

STA 2131

Sci - Minerals/Metals Oct 57 54,044

Production of Aluminium Cable Sheath, by Walter Daisinger, 8 p.

GERMAN, per, Zeit für Metall, 1939, Vol XXXI, No. 9, pp 305-310.

BLA 59-20359

Sci Mar 60 Vol 2, No 12

109,099

Recrystallization Textures of Face-Centered Iron-Nickel-Copper Alloys, by Horst Guido Muller, 12 pp.

GERMAN, per, Zeitschrift fuer Metallkunde, Vol XXXI, No 10, 1939, pp 322-325.

SLA 59-15205

Sci Dec 59 Vol 2, No 4

103,095

Chromium Plating with Special Reference to Black Chromium Plating, by K. Arndt, H. Endrass, 11 pp.

GERMAN, per, Z. Metallkunde, Vol XXX, Jan 1938, pp 21-24.

SLA Tr 57-635

Sci - Min/Met

53,329

Sep 57

Properties of Cemented X Carbide Compositions and Their Relation to the Wear Resistance, by W. Davihl.	
GERMAN, per, Zeitschrift Metallkunde, Vol XXXII, 1940.	
Brutcher Tr 1246	E
Scientific - Nin/Netals \$6.75	÷

(FDD 23331)

On Alloys of Germanium With Bismuth, Antimony, Iron, and Bickel, by K. Ruttweit, G. Masing, 38 pp.

GERMAN, per, Zeitschrift fuer Netallkunde, Vol XXXII, No 3, Nar 1940, pp 52-61.

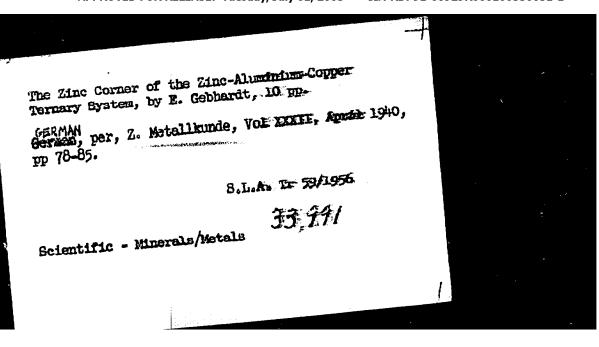
CIA/FDD/U-6820

S.L.A. 575

Germany Scientific - Minerals/Metals, metallurgy, alloys

21,771

CTS 64/Jan 55



APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100330031-1

Anodic Corrosion in Lead Accumulators, by H. Buckle, H. Hanemann, 5 pp.

GERMAH, per, Z fur Metallkunde, Vol XXXII, 1940, pp 120-122. 9081694

ACSIL Tr 1138

Sci - Chem

175,165

Dec 61

Investigation of the Time Sequence of Umklapp-processes in Metals, by.T. Forster, E. Scheil -21pp. UNCLASSIFIED SLA TT-63-2083/ 385

E.E.R.E., HARWELL 11/3/5/2015

Unin of Colf 764

Clentific - Ma- 4-Foerester GERMAN, per, 2. Metallk., Vol XXXII, No 6, 1940, pp 165-173, 9097635 April 54 CTS/DEX Scientific - Min/Metals -11,568

Schneider, Armin and Each, Udo.
ON THE REACTIONS BETWEEN MAGNESIUM AND SULFUR DIOXIDE (Uber die Reaktionen Zwischen Magnesium und Schwefeldioxyd). [1963] [21]p. (foreign text included) 13 refa.
Order from SLA \$2.60 63-18134

Trans. of Zeitschrift für Metallkunde (Germany) 1940, v. 32, no. 6, p. 173-177.

DESCRIPTORS: *Magnesium, *Sulfur compounds, *Dioxides, Casting, Chemical reactions.

(Metallurgy--Nonferrous Metals, TT, v. 10, no. 11)

Office of Technical Sarvices

A Measuring Device for the Rapid Determination of Magnetic Magnitudes, by F. Forster, 18 pp.

OKRMAN, per, Z. Metalkunde, Vol XXXII, No 6, Jun 1940, pp 184-190.

SLA 57-2440

SUA 62-18167 Sci

Aug 58

69,848

A Method of Measuring the Temperature Relationship of the Electrical Resistance and the Specific Heat of Metals in the Solid and the Fluid State, by F. Forster, G. Tschentke.

GERMAN, per, Z Metallik, Vol XXXII(6), Jun 1940, pp 191-195.

TPA3/TIB Tr No T 3993

Scientific - Electronics, temperature, resistance heat, metals, solid, fluid

Index Aeronauticus

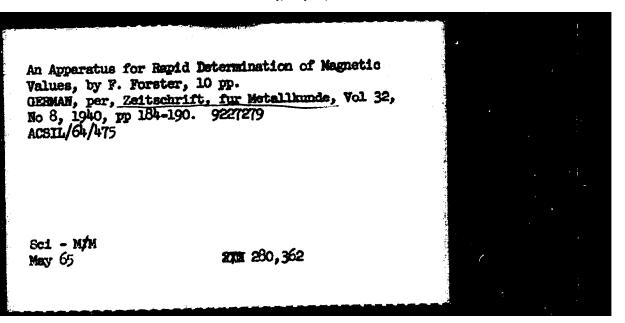
Magnetic Anisotropism in Rolled Iron-Nickel Alloys, by H. Conradt, O. Dahl, K. Sixtus, 23 pp.

GERMAN, per, Z Metallkumde, Vol XXXII, No 7, Jul 1940, pp 231-238.

8LA 2176

Sci - Minerals/Metals Oct 57

54,042



The Behavior of Zinc Toward Sodium Chloride Solution and Sea Water Under Atmospheric Conditions, by G. Schikorr, 12 pp.

GERMAN, per, Z Metallhunde, Vol XXXII, No 9, Sep 1940, pp 314-317.

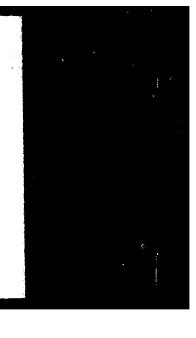
SLA Tr 1923

Sci - Minerals/Metals Sep 57

54,011

Diffusion of Mg in Al with Varying Degrees of Purity, by W. Bungardt.
GERMAN, per, Z. Hetallkde., 32, 1940, pp 360-362.
*NRS TT 70-57329

Sci-Mat Aug 70



Properties of Cemented Carbide Compositions and Their Relation to the Wear Resistance (Written Discussion), by C. Ballhausen.

GERMAN, per, Zeitschrift Fur Metallkunde, Vol XXXII, No 9, 1940, pp 365.

Brutcher Tr 1684

Scientific - Min/Metals

\$1.65

12,955

General and Specific Properties of Different Types of Electrodeposited Zinc-Coatings, by Hellmut, Heldegarde Barmann, 10 pp.

Grand 7/5 c/h c/r

German, per, Z. Metallkunde, Vol. XXXII, Movember
1940, pp 376-383.

S.L.A. Tr 52/1956

Scientific - Minerals/Metals 33,989

Intercrystalline Corrosion of Zinc Alloys, by Greta Petrich, Wolf Wolf, h pp.

h

GERMAN, per, Z. Metallkunde, Vol XXXII, Dec 1950, pp 412-414.

S.L.A. Tr No 483/1955

Sci - Minerals/Metals Jan 1957 CTS/dex 45,855

The Recrystallisation-Temperatures of Commercial Zinc Alloys, by George Masing, H. J. Wallbaum, 2 pp.

German, per, Zr Metallhunde, Vol XXXII, December 1940, p 418.

34,011

8.L.A. Tr 101/1956

Scientific - Chemister, Minerals/Metals

Influence of Iron Content on the Working Properties of Zinc Alloys, by Hermann Kastner and Ernst Pischer, 9 8 pp.

GERMAN, per, Z. Metallkunde, Vol XXX, August-September 1941.

> 8.L.A. Tr 85/1956 34,000

Scientific - Minerals/Metals, Physics

The Shape of the Cooling Curves, by
G. Masing.
GERMAN, per, Zeitschrift für Metallkunde,
Vol 33, No 1, 1941, pp 36-37, 9232373
AEC NP-Tr-1352

Sci/M&M
May 66

299,800

Magnetic Investigations of Internal Stresses. 1. Internal Stresses in the Stretching of Mickel Wire, by Fritz Forster, Kury Stamske, 17 pp. UNCLASSIFIED

CERMAN, per, Z. Metallkunde, Vol XXXIII, 1941, pp fx 98-104.

AEC Tr 1938

EEur - Germany Scientific - Min/Metals

17,403

Magnetic Investigations of Internal Stresses,

1. Internal Stresses in Die-Drawn Wickel Wire,
by Fritz Forster, Kurt Stamble, 22 pp. UNCLASSIFIED

GERMAN, per, Z. Metallkunde, Vol XXXIII, 1941, pp 104-114.

AEC Tr 1939

MEur - Germany Scientific - Min/Metals 17,396

Destruction of Materials by Cavitation, by Theo. Rutenbeck.

GERMAN, Zeitschrift Fur Matalikunde, Vol 33, No 4, April 1941, pp 145-152.

USA Corps of Engr, Waterways Exper Sta Tr 43-16

Sci - Engineering, hydraulics, naval Econ - Transportation, river, water

Available on loan at Research Center Library

The Simplest Principle in the Crystal Chemistry of Alloys, by U. Dehlinger, G.E.R. Schulze.

GERMAN, per, Z Metallk, Vol XXXIII, 1941, pp 157-

Associated Electrical Industries, Ltd Tr No T/442 OT/178

Scientific - Chemistry, crystal, alloys

Index Aeronauticus

Schweizerhof, Sigfrid.
HOMOGENEOUS COOLING STRESSES IN PLATED
MATERIALS. [1962] 35p. 4 refs.
Order from SLA \$3. 60 62-14785

Trans. of Zeitschrift für Metallkunde (West Germany)
1941, v. 33, no. 4, p. 168-175.

DESCRIPTORS: *Magnetic materials, Metals, Sheets,
*Plating, Annealing, Temperature, Elasticity,
Stresses, *Thermal stresses, Iron alloys, Nickel
alloys.

(Metallurgy, TT, v. 8, no. 4)

Schweizerhof, Sigfrid.
A NEW MULTILAYER MATERIAL WITH RECTILINEAR MAGNETIZATION CURVE. [1962] 47p.
24 refs.
Order from SLA \$4.60 62-14786

Trans. of Zeitschrift für Metallkunde (West Germany)
1941, v. 33, no. 4, p. 175-185.

DESCRIPTORS: *Magnetic materials, Magnetostriction, Parmeability, Heat treatment, Stresses,
Elasticity, Sheets, Nickel alloys, Iron alloys, Plating, Magnetic cores, Alloys.

(Physics--Magnetism, TT, v. 8, no. 4)

Office of Technical Services

62-18169 Conradt, H. W., Dahl, O., and Sixtus, K.
MAGNETIC ANISOTROPISM IN ROLLED IRON-NICKEL 1. Title: Anisotropy I. Conradt, H. W. ALLOYS (Magnetische Anisotropie in Gewalzten Eisen-Nickel-Legierungen). [1962] [23]p. 9 refs. Order from SLA \$2.60 II. Dahl, O. III. Sixtus, K. Trans. of Zeitschrift für Metallkunde (Germany) 1940, v. 32 [no. 7] p. 231-238. DESCRIPTORS: *Nickel alloys, *Iron alloys, Rolling mills, Deformation, Crystal structure, Magnetic fields, Heat treatment, Elasticity, Stresses, Single crystals, Rotation, Conductivity, Magnetostriction, Magnetic properties, intensity. In nickel iron alloys, cold rolling leads to a strongly preferred magnetic direction in the direction of rolling. Heating, even below the initiation of recrystallization, eliminates the rolling anisotropy; in this way there was made possible a complete division of the total anisotropy Office of Technical Services (over) (Metallurgy, TT, v. 9, no. 4)

Concerning the Synthesis and the Volume Changes of Zinc-Copper-Aluminum Alloys III. Survey of the Course of Equilibrium in the Copper-Aleminum-Zinc System, by Werner Koster, 26 p.

GERMAN, per, Zeit fur Metallkunde, 1941, Vol Vol XXXIII, No 8/9, pp 289-296.

BLA 59-17830

Sci Feb 60 Vol 2, No 10 108,912

ŝ

On the Structure and Changes of Volume of Zine-Copper-Aluminum Alloys, IV. The Causes of the Volume Changes and a Method for Achieving Constancy of Dimension, by Erich Gebhardt, 24 p.

OERHAN, per, Zeitschrift für Metallkinde, 1941, Vol XXXIII, No 8/9, pp 297-305.

SLA 59-17829.

8c1 Feb 60 Vol 2, No 10 108,910

The Adhesion of Hot-dipped Zinc Contings, by Hains Bablik, and Rudolf Schen, 5 pp.

CERMAN per, Z. Metallkunde, Vol XXXIII, No 10, Oct 1941.

S.L.A. Tr 7/1956

Scientific - Minerals/Metals-Chestatry
33,935

The Zinc-Cerium and Zinc-Lenthamum Systems, by Jakob Schramm (Stuttgart), 5 pp.

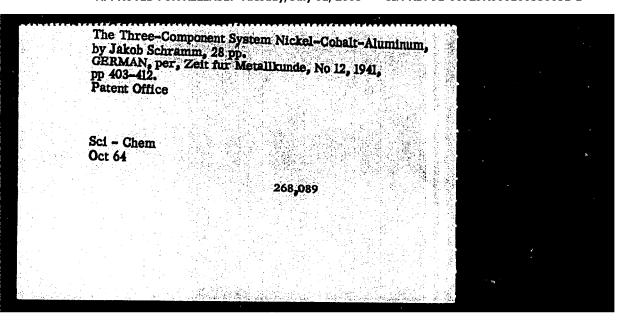
CERMAN, per, Zeit fuer Metallhunde, Vol XXXIII, 1941, pp 358-360. 9209187

ABC-Tr-5678

Sci - Met & Met

Jul 63

236,168



The Processes in Metal Structure Subjected to Tensile and Alternating Loading, by A. Thum, C. Petersen, 17 pp.

Full translation.

GERMAN, per, Zeits.for Metellkunde, Vol XXIV, No 2, Feb 1942, pp 39-46.

S.L.A.

Scientific - Minerals/metals

21,223

Aug 55

The Diffusion of Carbon in Alloy Steels, by W. Seith, F. Bartschat, 11 pp.

GERMAN, per, Z Metallkunde, Vol XXXIV, 1942,

pp 125-130.

AEC Tr IGHL-T/C-89

Sci - Chem

Sep 58

73, 720

The Temperature Dependence of the Solubility of lead in Solid Silver Above the Butectic Temperature, by E. Raub and A. Polescok-Wittek, 11 pp.

GERMAN, per, Z. Metallkunde, Vol XXXIV, 1942, pp 93-96.

801

Jul 58

68,015

The Determination of the Probable-Damage line of an Al-Cu-Mg Wrought Alloy, by F. Bollenrath, H. Cornelius

Full translation.

GERMAN, per, E. Metallk, Vol XXXIV, No 7, Jul 1942, pp 150-156.

TPA3/TIB Tr No T-4081

5.L.A.

Scientific - Minerals/Metals

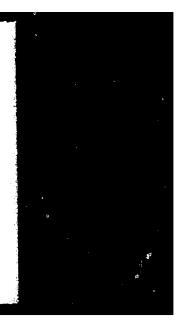
Index Aeronautics

Jun 53 CTS/DEX

2315

Diffusion of Fe and Al and the Formation of Intermetallic Phases, by W. Seith, GERMAN, per, <u>Z Metallicle</u>, No 35, 1943, pp 242-245.
*NRS TT 70-57479

Sci-Mat Aug 70



Lawiner Corrosion in Aluminium Alloys, by T. Bollenrath, W. Bungardt

GERMAN, per, Z. Metallk., Vol 34, No 7, pp 160-165, Jul 1952.

TEAS/TIB TO BO T 4044

Scientific - Minerals/Metals
Ministry of Supply, TPA3/TIB/P & TD, Leyslown Road,
Mottingham, London, S.E.9

1334

Results of Investigations on Butectic Zinc Alloys, by Weiss E. Blumenthal, and H. Hancmenn, 2 pp.

per, 2.2. Metallkunde, Vol XXXIV, September

8.L.A. Tr 15/1956

Scientific - Minerals and Metals
33,939

Contribution to the Fatigue Bending Strength of Bollod Zinc and of Zinc Alloys, by F. Erdmann-Jesnitzer, H. Hanemann, J. Kohlmeyer, 8 pp.

No %

GERE'AN, per, Z. for Metall'ning, Vol XXVIV, 1942

Scientific - Minerals/Metals

3,L.A. 24, 802

The Crystal Structures of Ni5Ce, Nicla, Nico, Cucla, CucCa, Zn5La, Zn5Ca, Nico, MgCe, MgCe, HgLa end MgSr, by Hans Hosotny, 21 pp.

GERMAN, per, Z Metallkunds, Vol XXXIV, ART 1942, pp 247-253.

8.L.A. Tr 1022/1956

Sci - Chemistry

The Stress Corrosion Behavior of Several HTT Aluminum-Zinc-Magnesium Alloys After Artificall Aging, by Malter Bungardt, Cunther Schmitberger, 31 pp.

WHINTE ORIGINAL, per, Z fur Metallkunde, vol XXXV, No 2, 1943, pp 47-55.

SIA 60-14360

Soi Feb 62 E Vol III, Bo 11 184.691



The Problem of the Strengthening Effect of Latent Elastic Stresses, by G. Masing, 6 pp.

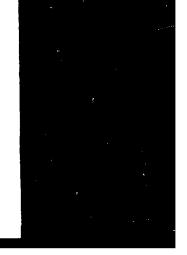
GERMAN, per, Z. Matallkunde, Vol XXXV, Jan 1943, p 56.

SLA 58-697

Sci

Aug 59

95,671



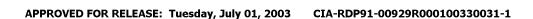
Surnounce Massings On Annalogally Quidless Disser of Al-Mm and Al-Mg-Si Alloys, by H. Rohrig, D. Kapenick, 5 pp.

GERMAN, per, Zeits.Metallhunde, Vol XXXV, 1943, pp 117-120.

S.L.A. No 385/1956

Scientific - Minerals/metals

34,277



The Resistance of Zinc to Atmospheric Corrosion, by Gerhard Schikorr, Ina Schikorr, 17 pp.

GERMAN, per, Zeitschrift fuer Wetallkunde, Vol XXXV, Sep 1943, pr 175-181.

8.L.A. Tr 600/1955

Sci - Min/Met Apr 1957 CTS/dex 50,234

On the Theory of Degassing of Liquid Metal by Scavenging by W. Geller, 18 pp. UNCL

GERMAN, per, Z Metallkunde, Vol XXXV, No 11, 1943, pp 213-217.

Apply for loan:

Atomic Energy Research Establishment Apply through Science Library, South Kensington, London.

May 59

Permeability Heasurements on Strip Having a Thickness of G.1 to G.Cl mm, by G. Rassmenn, 10 pp.

GIRMAN, per, Z. Metallkunde, Jun 1944, pp 131-135.

SIA 57-3080

Sct.

SLA 59-15196

Aug 58

71,425

Investigations With Porous Sintered Alloys on a Copper Base, by Hermann Unckel,

GERMAN, per, Z Metall, Vol XXXVI, 1944, pp 164-169.

AEC Tr-4019

Sci - Phys

May 60

117,374

Relationship between Dimensional Changes of Metal and Powders and their Properties, by H. Eswihl and W. Rigin, 14 pp.

GERMAN, per, Z. Metallkunda, Vol XXXVI, No 8, 1944, pp 197-200. (Loan Copy Only).

SIA 57-3001

Sci

Aug 58

71,416

Diffusion Behaviour of Rare Metal Platings, Part I, by H. Buckle, 13 pp.

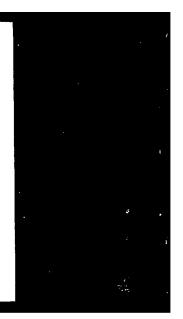
GERMAN, per, Z. fuer Metallkunde, Vol XXXVII, No 1, 1946, pp 47-52.

CSIRO

Sci - Min/Met May 62

196,422

075 62-18478 SLA 63-20972



APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RE

CIA-RDP91-00929R000100330031-1

Bückle, Helmut.
STRUCTURE AND MICRO-HARDNESS OF BINARY
AND TERNARY SYSTEMS OF COLUMBIUM,
TANTALUM, MOLYBDENUM AND TUNGSTEN.
[29 Sep 47] [7p] 1 ref
Order from SLA \$1.10
TT-53-20971

Trans. of [Zeitschrift fur Metallkunde] (West Germany) 1946 [v. 37, no. 1/2] p. 53.56. (Abstract available)

DESCRIPTORS: *Powder metallurgy, Sintering, *Tungsten alloys, *Molybdenum alloys, *Tantalum alloys, *Niobium alloys, Hardness, Microstructure, Phase studies,

A high vacuum sintering installation for maximum temperatures is described for the manufacture of sintered bodies from high-melting metals. Tungsten, molybdenum, columbium and tantalum, as well as their binary and ternary alloys were preperted in the (Metallurgy-Nonferrous Metals, TT, v. i1, no. 5) (over)

TT-63-20971

I. Bückle, H.

Office of Technical Services

On the Effect of Air on Liquid Zinc, by Brich Gebhardt, 13 pp.

GERMAN, per, Zeits fuer Metallkunde, Vol XXXVII, 1946, pp 87-96.

8. L. A. Tr 595/56

Bci - Min/Met

38,344

Aug 56 CTS/dex

Diffusion Studies in Multiphase Alloys, by H. Buckle.
GERMAN, per, Z. Metallkde, Vol 37, 1946, pp 175-181.
*MITS/USDC/NBS TT 71-55044
Available NBS Only

May 71

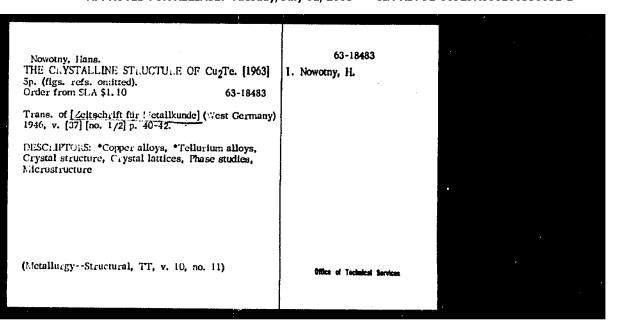
The Diffusion Behavior of here Wital Platings,

GERMAN, per, 2. Matallkunde, Vol XXXVII, No 1, 1946, pp 175-181.

ABLIB-034

Sci Aug 58

70,866



X-Ray Stress Measurements With Steels Possessing Different Carbon Contents and Different Carbon Contents and Different Structures, by Frans Bollenrath, Viktor Hauk, 14 p.

GERMAN, per, Zeit für Metallhunde, 1946, Vol XXXVII, No 6, pp 161-167.

SIA 59-20598

Sei Apr 60 Vol III, No 2 113,590

Blickle, H.
DIFFUSION BEHAVIOR OF NOBLE METAL CLADDING
II. 20 Dec 48, 10p. (figs. formulae omitted),
Order from SLA \$1.10 62-18497

Trans. of [Zeitschrift für Metallkunde] (West Germany) 1946 [v. 37, no. 6] p. 175-181.

DESCRIPTORS: *Rare earth elements, *Metals, Aluminum, Silver, Zinc, Cadmium, *Diffusion, Penetration, Crystal structure, Heating, Curve fitting.

A new index is suggested for the diffusion behavior of claddings. It is shown mathematically that the curve d = f(t) as a rule is a parabol a. After prolonged periods of heating, it may be approximated by its tangent. The penetration depths at various temperatures on the silver side are determined for the pairs of metals Ag/Al, Ag/Zn and Ag/Cd. In the pair of metals Ag/Zn, a swelling of the intermediate layers formed (Metallurgy--Structural, TT, v. 9, no. 4) (over)

62-18497

I. Blickie, H.

Office of Technical Services

Study of the Diffusion of Some Elements in Metals, by J. Hauk.

GERMAN, per. 2 Metallkde, Nos 37-38, 1946-47, pp 49-55.

*NBS TT 70-57521

Sci-Mat Aug 70

Frohleh, K. W. CONTACT MATERIALS WITH A SILVER BASE. 62-18377 1. Fröhlich, K. W. 5 Jan 49, 6p. (figs. tables omitted). Order from SLA \$1, 10 62-18377 Trans. of [Zeltschrift für Metallkunde] (West Germany) 1947 [v. 38] no. 1, p. 29-32. DESCRIPTORS: *Silver alloya, Physical properties, Hardening, Silicon alloys, Nickel alloys, Tungsten alloys, Iron alloys, Zinc alloys, Powder metallurgy. The applicability of pure silver as a contact material is limited by its softness, its tendency to stick, its relatively low melting point and its sensitivity to filming by sulfur. These four factors cause, according to the conditions of switching, rather strong plastic deformation, sticking, burning (i.e. actually splitting) of the contact material and contact resistance. To harden silver for (Metallurgy-Nonferrous Metals, TT, v. 9, no. 4) Office of Technical Services (over)

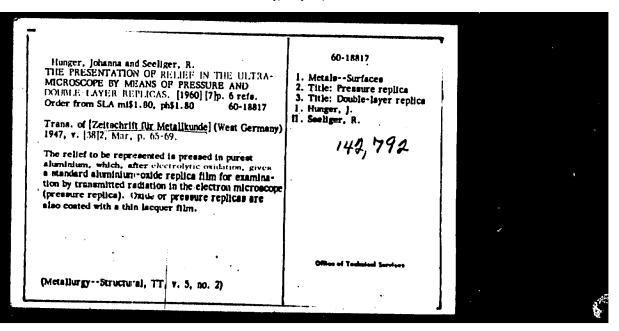
The Structure of Galvanic Alloy Deposits. IV. Silver - Cadmium Alloys, by Ernst x Raub, Bernhard Wullhorst, 34 pp.

GERMAN, per, Z Metallkunde, Vol XXXVIII, 1947, pp 33-41.

AEC Tr-4521

Sci Jun 61

157,744



Contribution to the Problem of Ingo Segregation, by E. Scheil.

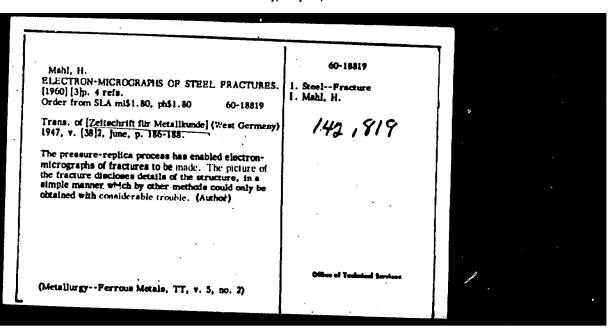
GERMAN, per, Z. fur Metallkunde, Vol XXXVIII, Pp 69-75.

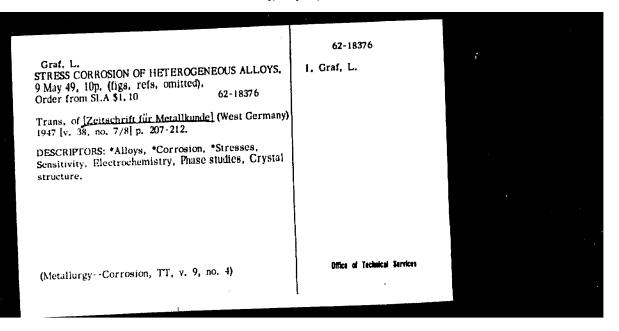
ASLIB GB 1

Sci - Min/Met

192,737

Apr 62





APPROVED FOR RELEASE: Tuesday, July 01, 2003

Note on the Reactivity of Water Vapor and Hydrogen Peroxide With Light Metals at Higher Temperatures, by Oswald Kubaschewski, Hans Ebert, 7 pp.

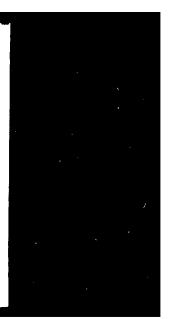
GERMAN, per, Z. Metallkunde, Vol. XXXVIII, 1947, pp 232-235.

AEC Tr 2413

Sci - Minerals/Metals, Chemistry

32,488

The Study of the Ferromagnetic Transition Temperature as A Function of Composition, by W. Gerlach. GERM:AN, per, Z. Metallkde, Vol 38, 1947, pp 275-280. *WTIS/USDC/NBS TT 71-55049
Available NBS Only



May 71

Reactions of Molten Zine-Aluminum Alloys With Solid Iron, by E. Gebhardt, I. Schmidt

GERMAN, per, Zeitschrift für Metallkunde, Vol XXXIX, No 11, 1947, pp 321-325.

Brutcher 3r 3128

Scientific - Minerals/Metals Price \$6.90 CIS/DEX

The Temperature Dependence of the Elastic Modulus of Some Pire Metals, by W. Koster. GERMAN, per, Z. Metallkde., Vol 39, 1948, pp 1-9.
*NTIS/USDC/NBS TT 71-55058
Available NBS Only

May 71

Köster, W.
ELASTICITY MODULUS OF PURE METALS AS A FUNCTION OF THE TEMPERATURE. 18 Peb 49, 10p. (figs. tables refs. omitted).
Order from SLA \$1.10 62-18402

Trans. of Z[eiks[chrift] ffftr] Metalikunde (West Germany) 1748 [v. 39, no. 1] p. 1-9.

DESCRIPTORS: Temperature, "Metals, "Elasticity, Melting, Measurement, Vibration mechanisms.

The modolus of elasticity and its temperature dependence were measured for 32 very pure metals from -180° up to the melting point or up to about 10000 with the aid of the determination of the natural frequency of transversely vibrating bars.

(Metallurgy, TT, v. 9, no. 3)

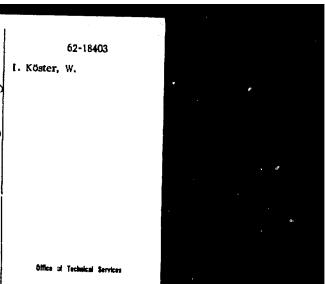
Office of Techsical Saviess

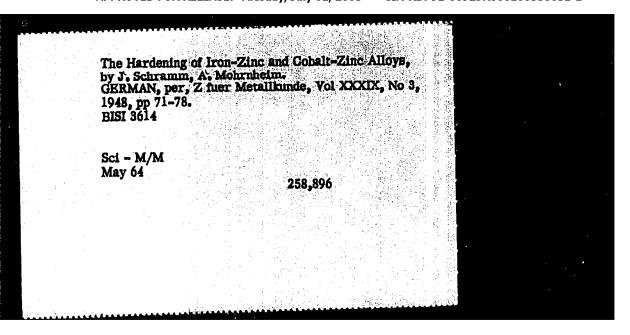
Köster, W.
ON A SPECIAL PHENOMENON IN THE TEMPERATURE COURSE OF THE MODULUS OF ELASTICITY AND DAMFING OF METALS SUCH AS Cu, Ag. AI AND Mg. 3 Mar 49, 5p. (figs. tables refs. omitted).
Order from SLA \$1.10
62-18403

Trans. of Zeits[chrift] f[tr] Metallkunde (West Germany) 1948, v. 39 [no. 1] p. 9-12

DESCRIPTORS: *Magnesium, *Aluminum, *Silver, *Copper, *Damping, *Elasticity, Temperature.

The temperature dependence of the modulus of clasticity and the damping of Cu, Ag, Al and Mg were determined. These four metals show, over an extensive temperature range, an unexpected lowering of the modulus of elasticity and an increase of damping. The height at which the bulge of the curve occurs depends on the degree of purity of the metals. The phenomenon is therefore due to (Metallurgy, TT, v. 9, no. 3) (over)



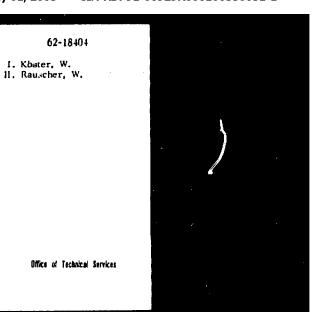


Köster, W. and Rauscher, W. RELATIONSHIPS BETWEEN THE MODULI OF ELASTICITY OF BINARY ALLOYS AND THEIR STRUCTURF. 17 Mar 49, 12p. (figs refs. omitted) Order from SLA \$1.60 62-18404

Trans. of Z[ci]ts[chrift] f[iir] Metallkunde (West Germany) 1948 [v. 39, no. 4] p. 111-120.

DESCRIPTORS: *Alloys, *Crystal structure, Futectics, Intermetallic compounds, *Elasticity, Lattices, Phase studies, Chemical bonds.

A comprehensive review is given with respect to the concentration dependence of the modulus of elasticity of binary alloys. An investigation was made of continuous mixed crystal series, limited mixed crystal series, eutectic alloy series and alloys with intermetallic phases. The most important structural systems were (Metallurgy--Structural, TT, v. 9, no. 2) (over)



Etudes magnetiques et electriques de barreaux frittes de nickel-carbonyle, by W. Gerlach,
J. Von Rennenkampf, et al, 27 pp.
GERMAN to FRENCH, per, Z fuer Metallkunde, Vol XXXIX,
1948, p 130.

Reverse Translation
CEA-A-1554

Sci
Sep 64

Jellinghaus, W.

THE MACNETIZATION PROCESS IN THE CASE OF IRON-NICKEL-ALUMINIUM-COBALT-AND COPPER-MAGNET ALLOYS WITH A PREFERRED DIRECTION. 25 Apr 59, 8p. (figs. tables omitted).
Order from SLA \$1.10 62-18351

Trans. of Zeits[chrift] f[Ur] Metalikunde (West Germany) 1948, v. 39, no. 2, p. 52-56.

DESCRIPTORS: *Magnetic alloys, Copper alloys, Cobalt alloys, Aluminum alloys, Nickel alloys, Iron alloys, Heat treatment, Magnetic fields, *Magnets, *Magnetism.

Starting with a completely non-magnetic state, internal magnetization curves are obtained with small fields which with amplitudes of less than H_C in the preferred direction, show less magnetization than in the trans-(Metallurgy, TT, v. 9, no. 2) (over)

Jesnitzer, F. E.
THE EFFECT OF THE WELDING TIME IN SPOT
WELDING OF ALUMINIUM ALLOYS. 29 Mar 50, 16p.
(figs. tables omitted) 19 refs.
Order from SLA \$1.60 62-18350

Trans. of Zeitschrift für Metallkunde (West Germany)
1948 [v. 39, no. 10] p. 303-312.

DESCRIPTORS: *Aluminum alloys, *Spot welding, Spot
welds, Welded joints, Flectrodes, Time.

Weld seams on single-notched spot-welds produced with
various periods of welding and intensities of welding
current, using six different aluminium-magnesium alloys, have been investigated with respect to strength and
structure, Accordingly, with long welding times of 20,
30 and more cycles duration (corresponding to 1/3,
1/2 and more seconds), weld seams were obtained
(Metallurgy, TT, v. 9, no. 2) (over)

Phase Boundaries in Binary Metallic Systems, by Ortrud von Goldbeck, 10 pp.

GERMAN, per, Z Metallkunde, Vol XXXX, 1948, pp 213-216.

Sci - Minerals/Meta/S

8.L.A. Tr 1064/1956

39,256

Diffusion in Metals, by O. Kubaschewski.
GERMAN, per, Z. Metallkde., Vol 39, 1948,
pp 216-228.
*NTIS/USDC/NBS TT 71-55063
Available NBS Only

May 71

III. The Oxidation Mechanism of Metals and Alloys, by Oswald Knbaschevski, 6 pp.

CHERMAN, per, Z. Metallk, Vol XXXIX, 1948, pp 218-220.

AEC Tr 2410

Sci - Minerals/Netals, Chemistry

Apr 56

33,267

Wellinger, Karl and Hofmann, Artur.
TESTING METALLIC MATERIALS IN THE COLD.
[26 Sep 49] [18p] 19refs
Order from SLA \$1.60c
TT-63-20830

Trans of Z[eitschrift für] Metallkunde (West Germany)
1948, v. 39, no. 8, p. 233*239.

DESCRIPTORS: *Aluminum, *Aluminum alloys,
*Magnesium alloys, *Manganese alloys, Low
temperature research, Tests, *Tensile properties,
Mechanical properties, Crystallization.

(Metallurgy--Light Metals, TT, v. 11, no. 4)

Office of Technical Services

The Rolling Texture of Zinc and Zinc Alloys and Its Influence on the Working Properties Especially the Deep-Drawing Characteristics, by W. Hofman, B. Trautmann.

GERMAN, per, Z Metallkunde, Vol XXXIX, No 10, 1948, pp 293 - 303.

Alum Lab, Ltd, Tr 0T/1598

Sci - Min/met Aug 57

51,341

Information on the Wanganese-Bearing Structural Constituent in Industrial Aluminium Alloys, by H. J. Seeman, M. Dudek, 2 pp.

GERMAN, per, Zeit fver Metallk, Vol XXXIX, Oct 1948, pp 319-320.

8.L.A. Tr 527/56

Sci - Minerals/Metals

Aug 1956