

About Diffraction of Parallel Light Waves by
Travelling Ultrasonic Waves. I., by E. H. Wagner.
GERMAN, per, Zeitschrift fur Physik, Vol 141,
1955, pp 604-621.
*AFCRL

Aug 68

On the Theory of the Thermal Conductivity of
a Plasma, Part I, by H. Schirmer.

GERMAN, per, Z. fuer Physik, Vol CXLII,
No 1, 1955, pp 1-13.

ASLIB GB 4/T/992

Sci - Phys.

192,732

Apr 62

Supraconduction and Electrical Resistance of Vapor-Sprayed
Bismuth Layers, by Nikolaus Barth, 9 pp.
GERMAN, per, Z. f. Physik, Vol CXLII, 1955, ~~pp 58-69.~~
pp 58-69. 9691130

ACSI I-2493-D
ID 2242439

NTC 70-23255

Sci - Phys-
Mar 64

251,364

On the Theory of Hysteresis Losses in a Rotating
Magnetic Field, by M. Kornetaki, I. Lucas, 12 pp.

GERMAN, per, Zeit fuer Physik., Vol CXLII,
1955, pp 70-82,.

AEC-RAE-Tr-1008

Sci-Phys
Nov 63

242,446

On the Theory of the Thermal Conductivity
of a Plasma, Part II, H. ~~KEKKEK~~ Schirmer.

GERMAN, per, Z. fur Physik, Vol XLII, No 2,
1955, pp 116-126.

ASLIB GB 4/T/993

Sci - Phys, Engr

Apr 62

192, 733

Concerning the Crystallization of Evaporated
Antimony Films, by Adolf Gotsberger, 24 pp.

GERMAN, per, Z Physik, Vol CXLII, 1955, pp 182-200.

ARC UCRL-Trans-504(L)

Sci - Phys
10 Nov 60
List 45

SDH 63-14-26

131,411

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3
The Fundamental Relationship Between Dislocation
Density and Stress Functions, by E. Kroner, 12 pp.

GERMAN, er, Z. Physik, Vol CXLII, 1955, PP
463-475.

AT8-66J17G

Sci

Jul 59

ASLIB
GB-4 91,338

Motchmann, Harald.
MEASURING THE OSCILLATOR STRENGTH OF A
FEW NI-LINES IN A WATER AND AIR-STABILIZED
LIGHT ARC (Messung der Oszillatorenstärke einiger
Ni-Linien im Wasser- und Luftstabilisierten
Lichtbogen). [1962] 18p. (1 fig. omitted) 14 refs.
Order from SLA \$1.60 62-16090

Trans. of Zeitschrift für Physik (West Germany)
1955, v. 143 [no. 1] p. 77-92.

DESCRIPTORS: *Plasma physics, Plasma oscillations,
*Spectrographic analysis, Lighting equipment

The oscillator strength of 10 Ni-multiplets (located in
the wave length range between 5500 and 4000 Å) and of
their components are determined through absolute in-
tensity measurements. In this connection the absolute
intensities of a hydrogen and an oxygen line are used
(Physics--Theoretical, TT, v. 8, no. 6) (over)

62-16090

I. Motchmann, H.

Office of Technical Services

Negative Photoeffects in Semiconductors, by F.
Stockmann, 18 pp.
GERMAN, per, Z. Phys., Vol 143, 1955, pp 348-356.
P911386967
AEC UCRL-TRANS-10129

Sci-Physics
Dec 67

346,214

Measurement of the Critical Supersaturation
in Vapors with the Diffusion Cloud Chamber,
by J/P. Franck, H. G. Hertz.
GERMAN, per, Zeit. für Physik, Vol 143,
pp 559-590, 1956 9229594
AEC AI-Tr-93

Sci-ES&A
Nov 65

291,971

The Structure of Thin MX Salt Layers - Condensed at Low
Temperature - of First Alkali Halides, by Wilhelm Rühl,
10 pp.
GERMAN, pe., Z fuer Physik, Vol CXLIII, 1956, pp 591-604.
9691137

ACSLI-2493-E
ID 2232439

NTC 70-23254

Sci - Phys-
Mar 64

251,365

The Structure of This Salt Layers Condensed at Low
Temperature - of Second Halides of Heavy Metals, Cu, An
and Ti, 13 pp.

GERMAN, per, Z fuer Physik, ~~WOLFFENBUTEL~~ VOI CXLIII,
1956, pp 605-622.

ACSI I-2493-F
ID 2232439

Sci - Phys-"
Mar 64

251,366

Studies on Thermoelements From the Rhenium-Iridium System, by G. Haas, G. Schneider, 7 pp.

CHROM, Ger, Z. Phys. Physik, Vol CXLIV, 1956,
no 356-357.

3835
AEC tr-453

Sci - Phys
Jan 60

104,889

Generation of a Stream of Hydrogen Atoms With
Unidirectional Nuclear Spin, by G. Clausnitzer,
R. Fleischmann, H. Schopper, 11 pp.

GERMAN, per, Z Physik, Vol CXLIV, 1956, pp 336-342.

AEC

AECB-Lib Tr 768

Sci - Nuc Phys

Sep 58

73, 786

Hittmaier, O.

SHELL MODEL COUPLING AND POLARIZATION OF
STRIPPING PROTONS (Schalenmodellkoppelung und
Polarisation von Stripping-Protonen) tr. by D. A. Sin-
clair. 1961, 8p. 5 refs. [NRCC] Technical trans 941.
Order from NRCC \$0.50 NRCC C-3591

Trans. of Zeitschrift für Physik (West Germany) 1956,
v. 144, p. 449-454.

61-22101

1. Nuclear reactions--
Analysis
2. Protons--Polarization
3. Deuterons--Nuclear
reactions

- I. Hittmaier, O.
- II. NRCC TT-741
- III. NRCC C-3591
- IV. National Research
Council of Canada

15908

Office of Technical Services

(Nuclear Physics--Nuclear Reactions, TT, v. 5, no. 11)

Collective and Individual Degrees of Freedom in
Helium II., by W. Brenig, 38 pp.

GERMAN, per, Z Physik, Vol CXLIV, 1956, pp 488-508.

ABC UCRL-Trans-681(L)

Sci - Phys
Oct 61

171, 2-25

List 60

Unified Dynamics and Thermodynamics of a Thermal
Plasma, by H. Maack, Th. Peters, 58 pp.

HERMAN, per, Z fuer Physik, Vol CXLIV, 1956,
pp 586-611. CIA 9031469

Rand Corp T-90

Sci - Phys

Aug 48

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New Method of Measuring Extremely Small Ion
Current in High Vacuum, by W. Schutze, F.
Bernhard.

GERMAN, per, Z. fuer Physik, Vol CXLV,
No 1, 1956, pp 44-47.

CSIRO

SLA 62-16302
196,425

Sci - Phys
May 62

Mechanism of the Energy Transfer in the
Sensitized Fluorescence of Organic Mixed
Crystals, by H. C. Wolf, 7 pp.

GERMAN, par, Z. für Physik, Vol CXLV, 1956,
pp 116-124. CIA 9004653

A.C.B.I.L. Tr 887

Sci - Chem; Physics
May 57 CTS/dex

47, 532

Macroscopic Expansion and Lattice Disorder in Silver
Bromide Crystals, by W. Zieten.

GERMAN, per, Z. Phys. Vol CXIV, No 1, 1956, pp 125-
140.

ASLIB-GB-131

Sci

Aug 58

71,006

Electron Diffraction Photographs of Thin Metal Layers at
Low Temperatures, by Hagen Bulow, Werner Buckel, 8 pp.
GERMAN, per, x Z. Natur Physik, Vol CXLV, 1956,
pp 141-150. ~~EXCISE~~ 9691138

ACSI I-2493-G
ID 2232439

NTC 70-23253

Sci - Phys
Mar 64

251,367

Hall Effect and Electrical Resistance of InSb in
Strong Magnetic Fields and at High Pressures, by
J. Gieslesen, K. Klitzing, 5 pp.

GERMAN, per, Z Physik, Vol CXLV, 1956, pp 151-155.

SIA 57-2338

May 58

63,197

on the Electrical Behaviour of Si-Crystal
Interlayers, by H. F. Matare.

BERMAN, per, Z. fuer Physik, Vol E CXLV,
1956, pp 206-234.

CSIRO

Sci - Phys
Jul 62

207.666

Electron Theory Investigations on Vacancies in
Metals: The Association Energy of Vacancy Pairs
in Monovalent Metals as in Transition Metals,
by A. Seeger.
GERMAN, per. Z. Physik, No 145, 1956. pp 161-183.
*NBS TT 70-57514

Sci-Mat
Aug 70

Haase, G. and Schneider, G.
INVESTIGATIONS ON THERMOELEMENTS OF THE
SYSTEM IRIIDIUM-RHENIUM. [1962] 10p. (figs.
omitted) 5 refs.

Order from SLA \$1.10

62-18263

Trans. of Zeitschrift für Physik (West Germany) 1956,
v. 144, p. 256-262.

DESCRIPTORS: *Temperature sensitive elements,
*Thermocouples, Crystals, *Rhenium, *Iridium,
Tungsten, Thermoelectricity, High temperature
research.

The thermopotentials of Ir, Re, and of alloys of the sys-
tem Ir-Re, against W were measured up to 2450°C. The
upper limit of usefulness of thermoelements of this kind
is apparently between 2000 and 2400°C., depending on
the combination. Systematic studies covering the entire
range of concentrations showed the following to be a
(Physics--Thermodynamics, TT, v. 9, no. 3) (over)

62-18263

I. Haase, G.
II. Schneider, G.

Off. of Technical Services

On the Transmission of Monochromators, by G. Bauer.

GERMAN, no per, Z Phys. Vol XLV, 1956, pp 279-2 300.

DSIR/28791/OT

Sci - Physics
Sep 57

52, 385

Continuum Theory of Dislocations, by E. Kroner and G.
Rieder.

GERMAN, per, Z. Phys. Vol ~~CLV~~ ^{CLV}, 1956, pp 424-429.

ASLIB-QB4

Sci

Aug 58

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Saturation Magnetization of Nickel Under
High Hydrostatic Pressure, by
K. H. von Klitzing.
GERMAN, per, Zeitschrift fuer Physik,
Vol 146, 1956, pp 59-64
NTC 72-12351-20C

July 72

63-14054

Waldelich, Wilhelm.

THE QUESTION OF A AgBr STRUCTURAL CHANGE
IN THE FORMATION OF THE LATENT IMAGE.

Zur 63, 13p. 14 refs.

Order from SLA \$1.60

63-14054

I. Waldelich, W.

Trans. of Zeitschrift für Physik (West Germany) 1956,
v. 146, p. 505-514.DESCRIPTORS: *Photographic images, *Silver com-
pounds, *Bromides, Crystal lattices, *Photographic
chemicals, Photographic film, X-ray photography,
Photography, Photographic emulsions

In the present work, a search is made with monochro-
matic X rays for signs of a B 3 structure in Debye-
Scherrer diagrams. Photographic films that were
moved along through the primary beam to avoid greater
exposure to the X rays during the Debye exposures
were used as the sample. In each case, photographs
(Materials--Photographic, TT, v. 10, no. 4) (over)

Office of Technical Services

Unified Dynamics and Thermodynamics of A
Thermal Plasma, by H. Maicker, Th. Peters,
4Opp.

GERMAN, per, Zeitschrift fur Physik, Vol 144,
1956, pp 586-611.

CFSTI TT-64-71351.

322,679

Sci - Physics
Apr 67

Stroosche, H.
THE EFFICIENCY OF CADMIUM SELENIDE LAY-
ERS AT SELENIUM RECTIFIERS, II. [1961] 20p.
(5 figs. omitted) 34 refs.
Order from SLA \$1.60

61-16459

Trans. of Zeitschrift für Physik (West Germany) 1956,
v. 145, p. 597-610.

DESCRIPTORS: *Selenium rectifiers, *Selenides,
Cadmium compounds.

It was found experimentally that the two structures of
the CdSe, i. e. the cubic and the hexagonal one, behave
differently with respect to placement of the excess Cd.
At the cubic CdSe the placement of excess Cd in the
lattice will cut down the electric resistance more than
this is the case for the hexagonal CdS. One may raise
or lower at will the electric resistance by tempering
the samples in Se or Cd vapor, respectively. Accord-
(Engineering--Electrical, TT, v. 6, no. 6) (over)

61-16459

J. Stroosche, H.

176527

Office of Technical Services

english title unknown, by H. Rollnik.
GERMAN, per, Zeit. fur Physik, Vol 145, 1956,
pp 639-653.
*NASA TT F 13,302

oct 70

On an Experimental and Theoretical Determination of
the Thermal Conductivity of the Plasma in a High-
Current Carbon Arc, by R. Wienecke, 24 pp.

GERMAN, per, Z Physik, Vol CXLVI, 1956, pp 39-58.

ABC Tr SCL-T-48

Sci - Phys

Sep 58

73, 739

Electron Theory Investigations about Vacancies
in Metals: Influence of Dislocations on Crystals
Layers and Applied Problems, by H. Stehle.
GERMAN, per. Z. Physik, No 146, 1956, pp 217-241.
*NBS TT 70-57513

Sci-Phys
Aug 70

On the Dispersion of the Mischance in Self-
Quenching Collimating Tubes I., by E.
Huster, E. Ziegler.

GERMAN, per, Z. fuer Physik, Vol. CCXVI,
1956, pp 261-294.

CSIRO

Sci. - Phys
Jul 62

207,608

VELOCITY ANALYSIS OF LAVAL BEAMS, BY
E. W. BECKER, W. HENKES, 15 PP.

GERMAN, PER, Z FUR PHYSIK, VOL CXLVI,
1956, PP 320-332. 9082374

AEC TR-4792

SCI - PHYS

NOV 61

173,005

Beams From Condensed Atoms and Molecules in a High
Vacuum, by E. W. Becker, K. Bier, W. Henkes, 8 pp.

GERMAN, per, Z fuer Physik, Vol CXLVI, 1956,
pp 333-338. 9093605

AEC Tr-4790

Sci - Phys
Dec 61

177, 405

On the Ion Reflection and Secondary
Electron Emission in the Collision of
Alkali Ions with Pure Molybdenum Surfaces,
by C. Brunnee.

GERMAN, per, Zeitschrift fuer Physik,
Vol 147, 1956, pp 161-83.
SLA TT-66-11066

Sci 67

332, 211

A New Microbalance of Quartz for Work Under
Highest Vacuum, by Herbert Mayer, ~~IK~~ Klaus
Behrndt, 10 pp.

GERMAN, per, Z fuer Physik, Vol CXLVII, No 4,
1957.

NACA CN-52538

Sci - Engr

50,528

Aug 57

Gas Thermometry at High Temperatures I. A New
Method of Gas Thermometry, by H. Moser, J. Otto,
Thomas.

GERMAN, per, Z Phys, Vol CXLVII, 1957, pp 59-75.

DSIR/31028/CT

Sci - Physics
Feb 58

58,840

Gas Thermometry Measurements at High Temperatures.

II. Determination of the Gold ~~Ein~~ Point, by
H. Moser, J. Otto, W. Thomas.

GERMAN, par, Z. Phys., Vol CXLVII, 1957, pp 76-91.

DSIR/31027/CT

Sci - Physics
Feb 58

58,838

Ion Reflection and Secondary Electron Emission During
Impact of Alkali Ions on Pure Molybdenum Surfaces,
by Curt Brunner, 29 pp.
GERMAN, par. 2, Physik, Vol CXLVII, 1957,
pp 161-183. 9228791
AEC-ORNL-TX-467

Sci-Phys
May 65

279,068

Theory of the Reflection of Positive Ions on
Metallic Surfaces, by Othmar V. Roos, 26 pp.
GERMAN, per, Zeitschrift für Physik, Vol 147,
1957, pp 184-209. P91122357
AEC NP Tr-1538

331,121

Sci - Nuclear Science
Jul 67

Energy Distribution of Secondary Electrons
Released by Protons in Gases, by Erich Blauth.
GERMAN, per, Z. Phys, Vol 147, 1957, pp 228-240.
ANL-Trans-723

July 69

384-709

Absolute β Counting in Samples of Saturation
Thickness, by J. Haintz, H. Fischbeck, 16 pp.

GERMAN, per, 2 fuer Physik, Vol CXLVII, 1957, pp
277-287.

AMIC Lab Tr 810

Sci - Phys

May 59

86,163

Forced Oscillations of a Simple Nonlinear
System. I. The Differential Equations and
Their Steady-State Solutions, by Werner Braunbek,
15 pp. UNCLASSIFIED

GERMAN, per, Z fuer Physik, Vol CXLVII, 1957, pp
297-306.

RACA N-57659

Sci - Phys

58,472

Feb 58

Haken, H.
CALCULATION OF THE ENERGY OF THE
EXCITON GROUND STATE IN A POLAR CRYSTAL
ACCORDING TO A NEW VARIATIONAL PROCEDURE OF FEYNMAN, I. [1961] 40p. (39 refs. omitted) 13 refs.
Order from SLA \$3.60

62-10619

Trans. of Zeitschrift für Physik (West Germany)
1957, v. 147, p. 323-349.

DESCRIPTORS: Particles, Energy, *Crystals,
Lattices, Vibration, Excitation, Quantum mechanics,
Wave analysis, Numerical analysis, Calculus of
variations.

The energy of the exciton ground state in polar,
vibrating crystals is calculated with the, perhaps,
simplest "trial-Schroedinger-equation" which occurs
(Physica--Solid State, TT, v. 7, no. 9) (over)

62-10619

1. Title: Exciton
1. Haken, H.

Office of Technical Services

Measurement of the False Order Energy of Bismuth and
Gallium Layers at Low Temperature, by Wilhelm Sander, 10 pp.
GERMAN, par, Z fuer Physik, Vol CXLVII, 1957, pp 361-372.
9691129

ACSI-2493-H

ID 2232439

NTC 70-23252

Sci- Phys
Mar 64

251,968

Thomas, Harry.
OUTER PHOTOELECTRIC EFFECT OF ALKALI
METALS. I. ITS THICKNESS DEPENDENCE FOR
POTASSIUM: RANGE OF THE PHOTON IN THE METAL.
[1962] [33]p. 47 refs.
Order from SLA \$3.60

62-16689

Trans. of Zeitschrift für Physik (West Germany)
[1957] v. 147, p. 395-418.

DESCRIPTORS: *Alkali metals, *Photoelectric effect,
*Potassium, Thin films, Volume, *Photons, Distri-
bution, *Plasma physics.

Earlier work was continued by measuring the thickness
dependence of the photoelectric emission of thin layers
of potassium evaporated in highest vacuum onto a
quartz support at low temperature. Measurements were
made at constant irradiation at wave lengths between
(Physics--Solid State, TT, v. 9, no. 2) (over)

62-16689

I. Thomas, H.
II. Title: Its ...
III. Title: Range ...

Office of Technical Services

The External Photoelectric Effect of Alkali Metals. II. The Spectral Distribution of the Quantum Yield in Potassium, by H. Mayer, H. Thomas.

GERMAN, per, Zeitschrift fur Physik, Vol147, 1957, pp 419-441.

NASA TT F-10,907

GOVERNMENT USE ONLY

Sci-Phys

Aug 67

338,708

Elbel, A.-W.
OPTICAL INVESTIGATIONS OF POTASSIUM FILMS
OF ATOMIC THICKNESS. [1961] 13p.
Order from ATS \$18.65 ATS-28N50G

Trans. of Z[schrift] Physik (West Germany)
1957, v. 147, p. 465-480.

ATS-883-6V

(Physics--Optics, TT, v. 5, no. 11)

- I. Thin films--Optical properties
2. Metal films--Optical properties
3. Potassium--Optical properties
- I. Elbel, A.-W.
- II. ATS-28N50G
- III. Associated Technical Services, Inc., East Orange, N. J.

159186

Office of Technical Services

The Dependence of Photoelectric Currents on
the Electric-Field Strength, by F. Stockmann,
19 pp.

GERMAN, per. Z fur Physik, Vol. ^{XLVII}XLVII, No 5,
1957, pp 544-566.

SIA 6-14199

Sci
Jan 62
Vol III, No 10

181, 286

Heiland, G.
ON THE INFLUENCE OF HYDROGEN ON THE
ELECTRICAL CONDUCTIVITY ON THE SURFACE OF
ZINC OXIDE CRYSTALS. 14p 21refs.
Order from SLA \$1.60

TT-64-16896

Trans. of Zeitschrift für Physik (West Germany) 1957,
v. 148 [no. 1] p. 15-27.

(Chemistry--Physical, TT, v. 12, no. 5)

TT-64-16896

I. Heiland, G.

Office of Technical Services

On the Relationship of the Characteristic
Energy Losses to Temperature and
Scattering Angle, by G. Meyer.
GERMAN, per, Zeit. fur Physik, Vol 148,
pp 61-71, 1957 9229607
AEC ORNL-Tr-536

Sci-Phys
Oct 65

290,644

Investigations of the Energy Loss of Slow Electrons
in Nitrogen, by ~~Haas~~ Rudolph, 21 pp.

GERMAN, per, Z. fuer Physik. Vol CXLVIII, 1957,
pp 177-191. 9668693

Amer Meteorol Soc T-G-188

Sci - Phys
May 63

231,949

The Piezoelectric Effect in Selenium, by
H. Gobrecht, et al.
GERMAN, per, Z. Physik, Vol 148, 1957,
pp 209-17.
ATS 1210-GJ

Sci - Chem Phy
Aug. 67

338,282

Elektronanbeugung Saufnahmen von Neuartigen
Zinn -- Wismit-Legierungen, by H. Bulow.

GERMAN, per, Zeit fur Physik, Vol CXLVIII, 1957,
p 321.

*possibly to be done by
ACSI

Sci -
Apr 63

Observation of Individual Electron Avalanches
and of Their Secondary Processes in Gases,
by J. K. Vogel.

GERMAN, per, Z. fur Physik, No 148,
1957, pp 355-373.

CSIRO

Sci - Phys
Mar 62

189, 289

Electrical Conductivity Measurements on Ag-
Halide Single Crystals, by R. Matajac.
GERMAN, per, Z. Physik, No 148, 1957, pp 454-495.
*NBS TT 70-57443

Sci-Mat
Aug 70

The Microfield in Total Units With Reciprocal
Effect According to Coulomb's Law, by G. Becker,
17 pp.

GERMAN, per, ~~Z. Phys. 241~~, Vol CXLVIII, 1957,
pp 593-606. 649795

OTIA 4753
FND/X-3715

Ordin Tech Intl
Agg.

Sci - Phys
Nov 59

102, 113

Supraconduction of Vapor Sprayed Lead Layers Admixed
With Manganese, by Nikolaus Barth, 5 pp.
GERMAN, per, Z fuer Physik, Vol CXL VIII, ~~DOXEX~~ 1957,
pp 646-652.

ACSI I-2493-I
ID 2232439

SCI - Phys
Mar 64

~~DOXEX~~ 251,369

Die Stabilisierung des Zwischenzustandes der
Supraleitung Durch Kritische Strome, by
W. Bucket, R. Hilsch.

GERMAN, per, Zeit fur Physik, Vol CXLIX, 1957,
p 1.

*possibly to be done by
ACSI

Sci
Apr 63

Meier, H.
QUANTITATIVE INVESTIGATION OF THE SPECTRAL
EMISSION IN PULSED DISCHARGES OCCURRING IN
MERCURY VAPOR HIGHEST PRESSURE ARCS. [1963]
35p 22refs
Order from SLA \$3.00

TT-(4-14180

Trans. of Zeitschrift für Physik (West Germany) 1957,
v. 149 [no. 1] p. 40-61.

(Physics, TT, v. 12, no. 1)

TT-64-14180

H. Meier, H.

Office of Technical Services

Electroluminescence From Diamonds, by Albrecht Fischer,
7 pp.
GERMAN, per, Z fuer Physik, Vol CXLIX, 1957,
pp 107-110. 9693158
Amer Meteorol Soc
T-G-64-37

Sci - Elec
Mar 65

275,054

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The Elastoplastic Behavior of a Cationic Exchanger,
by E. Rhysholm, J. Schloegl.
GERMAN, per, Z. Phys., Vol 11, 1957, pp 137-49.
AEC ORNL-tr-1663

Sci - Chem
Oct 67

342,341

61-10706

Schonheit, Eberhardt.
MASS SPECTROSCOPIC INVESTIGATION OF PHOTO-
IONIZATION IN GASES (Massenspektroskopische
Untersuchungen der Photoionisation in Gasen). [1960]
[29]p. 88 refs.
Order from SIA m\$2.70, ph\$4.80 61-10706

1. Gas Ionization--Spectro-
graphic analysis
1. Schonheit, E.

Trans. of Zeitschrift für Physik (West Germany)
1957, v. 149, p. 153-179.

151826

Mass spectra were photographed for air, nitrogen, oxygen, argon, water vapor, mercury vapor, and illuminating gas. The photoionization was produced by a vacuum spark the light from which was not decomposed spectrally. The ionization products which were found can be explained by simple photoionization, respectively by dissociation. Compared to oxygen, nitrogen shows under similar conditions a weaker photodissociation. For purposes of comparison the photoionization was investigated also with light which was filtered through lithium fluoride. (Author)

Office of Technical Services

(Chemistry--Physical, TT, v. 5, no. 9)

Changes in the Holsmark Profile of the Balmer
Lines in Plasma, by G. Neker, 11 pp.

C. XLIX,

GERMAN, per, Z Physik, Vol CXL, 1957, pp 254-
266.

149,

Assoc Tech Serv
67K27G

Sci - Chem

May 59

OTB, V I, No 6

67K 27G

86,285

English Title Unknown, by Herbert Mayer and
Harry Thomas,
GERMAN, per, Zeitschrift fur Physik, Vol CXLVII,
1957, pp 419-441.
*NASA TT F-10,907

Apr 67

The Condensation Behaviour of Substances With High Boiling Points, by K. G. Gunther.

GERMAN, per, Z fuer Physik, Vol CXLIX, 1957, pp 538-549.

*TIL T-5123

Sci - Chem

Jul 60

Bartels, H. and Beuchelt, R.
ON TYPICAL MANIFESTATIONS IN THE SPECTRUM
OF DENSE PLASMAS. II. SIGNIFICANCE OF THE
RADIATION DENSITY DISTRIBUTION IN DENSE
PLASMAS DURING PULSE DISCHARGING OF MER-
CURY HIGHEST-PRESSURE ARCS. [1963] 28p
Order from SLA \$2.60 TT-64-10907

Trans. of Zeitschrift für Physik (West Germany) 1957,
v. 149 [no. 5] p. 608-623.

(Physics, TT, v. 11, no. 11)

TT-64-10907

I. Bartels, H.
II. Beuchelt, R.
III. Title: Significance...

Office of Technical Services

Theory of the Low Temperature Peak of the
Internal Friction of Metals, by Hans Donth, 33pp.

GERMAN, per, Z Physik, Vol CXLIX, 1957, pp 111-130.

AEC 3390

Sci - Phys

Oct 58

73,587

Physical Processes During Electrical Wire
Explosions, by Erwin David, 18 pp.

GERMAN, per, Z fuer Physik, Vol CL, 1958, pp
162-171. 649773

AEC/SCL-T-242
OTIA 4754

Sci - Phys

May 59

X-3716

88,046

Voigtlaender-Tetzner, G.
ON THE THEORY OF THE X-RAY DISTRIBUTION
CURVES FOR LIQUIDS AND AMORPHOUS SUB-
STANCES. [1960] [29]p. 35 refs.
Order from SLA m\$2.70, ph\$4.80 61-10655

Trans. of Zeitschrift für Physik (West Germany)
1958, v. 150, p. 215-230.

The statistical frequency distribution for liquids and amorphous substances is obtained experimentally, by a Fourier transformation of X-ray scattering intensities. It is impossible to avoid a cut-off effect, which distorts the "radiographic distribution curve" so obtained in a characteristic manner. The degree of distortion depends on the magnitude of the statistical deviations of the atom sites in the irradiated volume and on the limit of measurement of the scattering intensity. In order to examine these influences, the equation for scattering intensity in liquids and amorphous substances is derived. The Fourier transform (Physics--Theoretical, TT, v. 3, no. 9) (over)

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1. X-radiation--Scattering
 2. Liquids--X-ray analysis
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OBSERVATION OF THE WEISS REGIONS IN POLY-
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Trans. of Zeitschrift für Physik (West Germany)
1958, v. 150, p. 632-639.

DESCRIPTORS: *Ferromagnetism, Crystals, *Do-
mains (Crystallography), Visibility, *Magneto-optic
effect, *Zinc compounds, Sulfides, Thin films, Vapor
plating.

A ZnS layer of specified thickness is vaporized on a
polished ferromagnetic specimen. The magneto-optical
Kerr rotation of linearly polarized monochromatic
light with meridional magnetization of the specimen is
increased by multiple reflections in the layer and by
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- I. Kranz, J.
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NRCC C-3593

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 2. Deuteron bombardment
 3. Neutrons--Nuclear reactions
 4. Protons--Nuclear reactions
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The Nuclear Resonance Gamma-Ray Fluorescence in
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DESCRIPTORS: *Gold, *Folts, Metal films, Thick-
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Velocity, Polarization.

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On the Invariant and Canonical Solutions of the
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The Electrical Conductivity of a Plasma, Part I, II,
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I. Hellenthal, W.

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MAGNETIC RESISTANCE CHANGE IN NICKEL
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LAYER THICKNESS AND STRUCTURE. [1961]; 15p.
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DESCRIPTORS: *Nickel, *Vaporization, Thickness,
*Ferromagnetism, Ferroelectricity, *Resistance

The ferromagnetic resistance change in nickel vaporization layers is investigated. The relative magnitude of the total effect (electrical resistance at saturation magnetization parallel to current minus resistance with transverse saturation, divided by the sample resistance) declines with decreasing layer thickness. A
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Trans. of Zeitschrift für Physik (West Germany)
1958, v. 151, p. 421-430.

DESCRIPTORS: *Nickel, *Vaporization, Thickness,
*Ferromagnetism, Ferroelectricity, *Resistance

The ferromagnetic resistance change in nickel vaporization layers is investigated. The relative magnitude of the total effect (electrical resistance at saturation magnetization parallel to current minus resistance with transverse saturation, divided by the sample resistance) declines with decreasing layer thickness. A (Physics--Magnetism, TT, v. 7, no. 8) (over)

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 - II. Konig, H.

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