

61-16854

Johnsen, U.

SPECTRUM AND ZEEMAN EFFECT OF TRIVALENT THULIUM IN THULIUM ETHYL SULFATE. Extract from thesis, Darmstadt U. (West Germany) (19587). [1961] 20p. (refs. omitted).

Order from SLA \$1.60

61-16854

Trans. of Zeitschrift für Physik (West Germany) 1958, v. 152, p. 334-369.

DESCRIPTORS: Single crystals, Ions, Hyperfine structure, Spectrographic analysis, *Sulfates, *Ethyl radicals, *Thulium, Thulium compounds, Polarization.

The absorption spectrum of the trivalent thulium ion is examined in hexagonal $Tm(C_2H_5SO_4)_3 \cdot 9 H_2O$ and in isomorphous, dilute mixed crystals between 8000 and 4500 Å in polarized light at high dispersion at 4.2 and 80°K. From the number and polarization of lines and from their Zeeman effect the symmetry quantum num- (Physics--Solid State, TT, v. 6, no. 8) (over)

1. Title: Zeeman effect
- I. Johnsen, U.
- II. Darmstadt U. (West Germany)

135113

Office of Technical Services

Roentgenographic Studies of Vapor-Sprayed Bismuth Layers
at Low Temperatures, by Hans-Joachim Quenzer, 9 pp.
GERMAN, per, Z fuer Physik, Vol CLII, 1958, pp 495-506.
9691305

ACSI I-2495-J
ID 2232439

Sci- Phys-
Mar 64

251,370

Nuclear Absorption Cross- Section for
Gamma Rays Between 10, and 30 MeV, by
B. Ziegler,

GERMAN, per, Zeit fur ~~SH~~ Physik, Vol CLII,
No 5, pp 566-573, 1958

C.S.I.R.O.

*ABC

Sci - Nuc/Phys
May 60

116/123
AEC-TR-837

The Hyperfine Structure in the Spectrum of
Lutetium, by Andreas Stendel, 15 pp.

GERMAN, per, Z Physik, Vol CLII, 1958,
pp 611-623.

AEC UCHL-Trans-639

Sci - Phys
May 61

150, 381

Mechanical Relaxation in Pure Monocrystals of
Ice, by P. Schiller.

GERMAN, per, Z. Physik, Vol CLIII, 1958, pp 1-15.

NRCC TT-890

Sci - Geophysics
Jan 61

James M. [unclear] [unclear]
AF Cambridge Res Inst

136,397

62-16476

I. Sueptitz, P.

Sueptitz, P.
THE PROPERTIES OF PHOTOELECTRONS IN
SILVER CHLORIDE AT ROOM TEMPERATURE.
[1962] 15p. (figs. omitted) 10 refs.
Order from SLA \$1.60

62-16476

Trans. of Z[schrift] f[ür] Physik (West Germany)
1958, v. 153, p. 174-185.

DESCRIPTORS: *Silver compounds, Chlorides,
*Single crystals, Electrons, Drift, Photoelectric
effect.

Silver chloride crystals with a different history were
tested with an impulse technique, utilizing the print-
out effect, to determine the drift mobility and the
mean life span of photoelectrons. The life span of the
electrons proved to be depending to a great extent on
the history of the crystals. In the most carefully pre-
pared crystals it was less than 10^{-7} sec.; in crystals
(Physics--Solid State, TT, v. 8, no. 10) (over)

Office of Technical Services

Angular Distribution in the Photofission of
Thorium, by H. Faissner, F. Gonnemann, 21 p.

GERMAN, per, Zeit fur Physik, 1958, Vol CLIII,
No 3, pp 257-268.

SLA 59-17446

Sci
Jan 60
Vol 2, No 8

105,542

The Yield of the Nuclear Reaction $Ni^{60}(d,2n)Cu^{60}$, by R. Radicella, J. Rodriguez, 6 p.

GERMAN, per, Zeit fur Physik, 1959, Vol CLIXI, No 3, pp 314-316.

SLA 60-10026

Sci
Apr 60
Vol XXI, No 2

113,607

CEA-tr-A-851 Uncl.

POLARISATION DE PLASMA ET INTERACTION DES PARTICULES
CHARGEES. (Polarization and Interaction of Charged
Particles in Plasmas). G. Ecker and K. G. Muller.
Translated into French from Z. Physik 153: 317-30(1958).
24p.

Particle Physics; Thermonuclear; Translations MC-20

C-20 NP NSA Dep.(mc).

Electronic States in Refractory Compounds
with the Sodium Chloride Structure,
by Heinz Bilz, 25 pp. FOR OFFICIAL USE ONLY
GERMAN, por, Z fur Physik, Vol CLIII, 1958,
pp 338-358. 9699801
FSTC 381-T65-664

AEC 103762

Sci - Chem, Elec
Mar 66

297,813

A Causal Theory for Waves Which Propagate at a
Velocity Greater Than That of Light, by
Helmut Schmidt, 15 pp.

GERMAN, per, Zeitschrift fur Physik, Vol 161,
1958, pp 408-420.

Dept of Navy NIC Trans 3059

Sci/Phys
July 70

The Very-Short-Wave UV Light from a Syn-
chronized Cylindrical Radio-Gas Corona, 195
1. Intensity Absorption and Ionization in
the Gas Corona, by W. Borsari, H. Jahn.

CHAMBER, 2nd, Z. fur Physik, Vol CHAMBER,
1959, pp 4458-4467, 468-469.

CHAMBER

Sci - Phys
Jul 62

207,607

Generation of a Beam of Hydrogen Atoms Having
Unidirectional Spin. Analysis of the Beam.
Proof of Maintenance of Polarisation, by
G. Clausnitzer, 23 pp.

GERMAN, per, Z. Physik, Vol CLIII, 1959,
pp 609-629.

~~SECRET~~
ASRE-Lib/tr-815

Sci - Nuc Phys

Jul 59

92,052

Statistics of Ignition Lag, by H. Sobst.
GERMAN, per, Zeit fur Physik, Vol 154, 1959,
pp 618-632.

CSGB

C.E. Trans 5217

Sci-Prop & Fuels

Feb 70

401,729

Interpretation of the Anomalies of the Optical
Constants of Thin Metal Films, by Erwin David,
24 pp.

HERMAN, per, Z fuer Physik, Vol ⁶ CXIV, 8 Aug 1959.

CIA 9071183

3c1 - Phys

3ep 60

127,131

The Use of Quartz Crystal Oscillators in Weighing
Thin Films and in Microweighing, Gunther
Sauerbrey, 14 pp.

GERMAN, per, 8 Z fuer Physik, Vol CLV, No 2,
1959, pp 206-222.

SLA 60-18069

Sci

196, 495

May 62

Recombination and "Minus" Continuous Spectrum of
the Oxygen Atom, by G. Baldt, 26 pp.

GERMAN, per, Z fuer Physik, Vol CLIV, 1959,
pp 319-329.

AEC Tr-4129

Sci - Phys
14 Oct 60

128,921

Boldt, G.

RECOMBINATION- AND "MINUS"-CONTINUUM OF
NITROGEN ATOMS (Rekombinations- und "Minus"-
Kontinuum der Stickstoffatome). [1962] [22]p. (foreign
text included) 5 refs.

Order from SLA \$2.60

62-16029

Trans. of Zeitschrift für Physik (West Germany) 1959,
v. 154 [no. 3] p. 330-338.

DESCRIPTORS: *Plasma physics, *Nitrogen, Ions,
Spectrographic analysis, Absorption, High temperature
research, Atoms.

The continuum emitted by a wall-stabilized arc burning
in nitrogen is measured for temperatures between
10,500 and 13,000°K in the wave length region from
4300 to 6300 Å. After subtraction of the calculated free-
free continuum of the electrons in the field of the posi-
(Physics, TT, v. 9, no. 4) (over)

62-16029

1. Title: Continuum
1. Boldt, G.

Office of Technical Services

Hall-Effect of Bismuth Layers Condensed by *AK* Quenching,
by Werner Buckel, 9 pp.
GERMAN, per, *Z fur Physik*, Vol CLIV, 1959, pp 474-483.
9691160

ACSI 1-2493-K
ID 2232439

Sci - Phys
Mar 64

251,371

The Optical Absorption of Thallium Chloride, by
Hans Zimngrebe, 20 pp.

REMARK, per, Z. Natur Physik, Vol CLIV, 1959,
pp 495-511. S093433

AEC SCL-T-398

Sci - Phys
May 62

193, 712

Calculation and Measurement of the Thermal
Conductivity of Nitrogen Up to 13000°K, by F.
Burhorn, 43 pp.

GERMAN, per, Z Physik, Vol CLV, 1959, pp 42-58.

AEC Tr-38990

Sci - Phys
May 60

681-25/52 1701

117,471

The Diffusion of zinc in Zinc Oxide, by
E. Pohl, 9 pp.
GERMAN, per, Zeitschrift fur Physik,
155, 1959, pp. 120-128.
*CFSTI TT 70-58072
AVAILABLE FROM NBS ONLY

Sci/chem

Apr 79

The Use of Oscillator Crystals in the Weighing
of Thin Layers and in Microweighing, by
Gunter Sauerbrey, 20 pp.
GERMAN, per, Z Physik, No 155, 1959, pp 206-222.
AEC/AI-Tr-63

Sci/Phy
Mar 71

The Experimental Determination of Stacking-Fault
Energies in Cubic Face-Centered Metals, by A.
Seeger, R. Berner, W H. Wolf, 13 p.

GERMAN, per, Zeit fur Physik, 1959, Vol ^CXLV,
No 2, pp 247-262.

OTS 61-1846J

321356

ATB-~~61-1846J~~

ATS 47-4J

Sci
Apr 60
Vol III, No 2

713611

X-Ray Study of Dislocations in Germanium, by V. Gerold,
F. Meier,

GERMAN, per, Z/ Physik, Vol CLV, 1959, pp 387-394.

ATS 479-FJ

Sci - Phys

Aug 60

123,928

How Valid is the Exponential Law for λ Decay?
by Joachim Petzold.
GERMAN, per, Zeit. fuer. Physik, Vol 155, No 3,
pp 422-432, 1959 923016?
AEC ORNL-Tr-706

Sci-Phys
Nov 65

291,868

Investigation of the Electrical Conductivity of Zinc
Oxide, by J. Deren, J. Haber, T. Wilkova, 19 pp.

GERMAN, per, Z. für Physik, Vol CLV, No 4, 1959,
pp 453-464.

SLA 60-16307

Sci

Apr 62

190,245

Vol IV, No 6

Measurement of Temperature Dependence of
Ferromagnetic Hall-Effect of Ni Evaporation
Layers in Determining Curie-Point, by
L. Reimer.

GERMAN, per, Zeitschrift fuer Physik, Vol CLV,
1959, pp 524-530.

ERDL Ft Belvoir
T-1179

Sci - Phys

155, 246

Jun 61

Absorption of ZnO Crystals in the In-
frared, by Reinhold Armeth, 13 p.

FOR OFFICIAL USE ONLY

GERMAN, per, Zeitschrift fuer Physik,
Vol CLV, 1959, pp 595-608, 9697728

RSIC-413

Sci-Phys

Mar 66

294,397

Pinched Xenon High-Pressure Discharges of High
Current Density, by A. Bauer, P. Schulz.
GERMAN, per, Zeit Phys, Vol CLV, 1959,
pp 614-627.
NASA TT F10,270

U. S. GOVERNMENT USE ONLY
Sci-Phys
Dec 66

314,948

The Three-Dimensional Stabilization of Charge
Carriers in a Quadrupole Field, by E. Fischer,
35 pp.

GOVERNMENT USE ONLY

GERMANY, per Z. fur Physik, 156, 1959, pp 1-26.

ISIC-715

CSIRD/No. 9507

HE
Sci/Phy
Jan 68

542,467

A New High-Index Material for Dielectric
Ultraviolet Mirrors, by G. Honcia, K. Kreba.
GERMAN, per, Z fuer Physik, Vol XLVI, 1959, pp 117-124.
NASA TT F-9272

Sci-Phys

May 65

U.S. GOVERNMENT ONLY

280,183

Some Notes on the Theory of Particle Size
Distribution in Aerosols, by X H. Koppe, 7 pp.

GERMAN, per, Z fuer Physik, Vol CLVI, 1959,
pp 211-216.

CSIR 190

183,569

Sci - Phys

Mar 62

Polymorphism of Arsenic , by K. Plieth, I. H.
Stranski, 22 pp.

GERMAN, per, Zeitschrift fur Physik, Vol CLVI,
No 3, 1959, pp 360-381. (9202879)

A.C.S.I.L. ER Tr 1281

Sci - Chem
Apr 63

226, 531

A Contribution to the Investigation of
Reciprocal Lattices of Single Crystals by
Means of Kikuchi-Patterns, by W. D. Riecke,
Y. Sakaki.

GERMAN, per, Z fur Physik, Vol CLVI, 1959,
pp 534-554. 9231790

AEC-UCRL-Tr-1227

Sci - Elec
Mar 66

296,508

Influence of Cathode Sublimation on the Energy
Balance of a High Current Carbon Arc, by
E. Hinrichs, E. Wienecke.
GERMAN, per, Zeit Physik, Vol 56, 1959, pp 592-
597.
BISI 8193

Sci-Mat
Jul 70

A Portable Universal Detector for Atomic Beams,
by H. Friedmann, 7 pp.
GERMAN, per. Z fuer Physik, Vol CLVI, No 4, 1959,
pp 598-602, 622189
AEC-NP-Tr-1108

Sci-Phys
May 64

259,713

On the Characteristics of Cylindrical Arcs,
by H. Mascher, 71 pp.

GERMAN, per, Z Physik, Vol CLVII, 1959,
pp 1-29.

AEC Tr-3995

Sci - Phys
May 60

117,473

Small-Angle Scattering During Collision Between
Neutral Atoms, by H. Pauly.
GERMAN, per, Z fuer Physik, Vol CLVII, 1959,
pp 54-64.
NASA TT F-9179

Sci-Phys
Jan 65
U.S. GOVERNMENT ONLY

270,983

Structure and Resistance of Very Greatly Distorted Copper
Layers at Low Temperatures, by K Ernst Feldtkeller, 12 pp.
GERMAN, pe., Z fuer Physik, Vol CLVII, 1959, pp 65-78.

ACSI I-2493-L
ID 2232439

Sci - Phys
Mar 64

251,372

Measurement of the False-Order Energy in Quench-Condensed
Copper at Low Temperature, by Winfried Monch, Wilhelm
Sander, 7 pp.
GERMAN, per, Z fuer Physik, Vol CLVII, 1959, pp 149-158.
9691139

ACSI I-2493-M
ID 2232439

Sci - Phys
Mar 64

251,373

The Influence of Lattice Distortions on the Optical Properties
of Metal Layers, by Jorg Haase, 18 pp.
GERMAN, per, Z fuer Physik, Vol CLVII, 1959, pp 166-188.
BOOK 9691304

ACSI I-2493-N
ID 2232439

Sci - Phys
Mar 64

251,374

Magnetic Susceptibility of the Electrons in
Silicon, Germanium and Indium-Arsenide, by
D. Geist, 18 pp.

GERMAN, per, Z fuer Physik, Vol CLVII, 1959,
pp 335-361. 9074579

ACSIL 1300

Sci - Phys

Mar 61

145,058

Investigation of the Electrical Conductivity
of Zinc. Oxide, by J. Haber.

GERMAN, per. Z. Phys., Vol. 155, No. 4, 1959

pp 453-464

GB 72

Sci -

Aug 67

337-501

Polarization of Nuclear Resonance Fluorescence
in Germanium 74, by O. Zehender.
GERMAN, per, Zeit fur Physik, Vol 157, 1959,
pp 219-231.
HTC-69-12867-20H

Sci-Phys
Sept 69

391,265

Investigation of Direct Pair Formation by
Electrons, by von L. Griegae.
GERMAN, per, Z fur Physik, Vol 158, 1960,
pp 433-443.
*AEC SLAC

Sci - Electronics
Aug 67

Measurement With a Crystal Spectrometer of Some Soft
Gamma Lines in the Neutron Capture in Europium, by
Otto Schult, 48 pp.

GERMAN, per, Z Physik, Vol CLVIII, 1960, pp 444-470.

9089621

AEC UCRL Tr-792(L)

Sci - Phys
Aug 62
List 71

206,096

Supraconduction of Vapor-Sprayed Lead Layers With and
Admixture of Gadolinium, by Klaus Schwidral, 7 pp;
GERMAN, per, Z fuer Physik, Vol CLVIII, 1960, pp 563-571.
9691126

ac SI I-2493-O
ID 2232489

Sci - Phys
Mar 64

251,375

Ionic Conductivity of Zone-Refined Alkali Halides,
by Helmut Grundig. 25 pp.
GERMAN, per, Zeitschrift fur Physik, No 158, 1960
pp 577-594
Dept of Navy tr 5397 ONI tr 2402

The Photochemical Behavior of Oxygen-Containing
Complexes in Alkali Halide Crystals, by F. Karkhoff.
GERMAN, per, Z fuer Physik, Vol CLVIII, No 5,
1960, pp 595-606.
NASA TT F-8860

Sci-Phys

May 64

U.S. GOVERNMENT ONLY

259,733

On the Photoelectric Effect of thin Metallic
Films, by Friedhold Baumann, 12 pp.

GERMAN, per, Z fuer Physik, Vol I CLVIII,
No 5, 1960, pp 607-622.

SLA 60-18071

196,883

Sci

May 62

H. Pick

Color Center-Associates in Alkalihalogenides.
GERMAN, per, Zeitschrift fuer Physik, Vol 159,
1960, pp 69-76
NTC 72-12664-20F

Absorption Spectrum and Zeeman Effect of
Crystalline Dysprosium Salts at Low Temperatures,
by G. Gramberg.

GERMAN, per, Zeit fur Physik, Vol CLIX, 1960,
pp 125-148. 9203648

AEC/Tr 5593

Sci - Phys

Mar 63

226,579

Fleischmann, R. and Witt, R.
INVESTIGATION OF THE STATE OF POLARIZATION
OF LIGHT ENTERING THE THINNER MEDIUM UPON
TOTAL REFLECTION BY MEANS OF SCATTERING
PARTICLES. [1961] 15p. 8 refs.
Order from SLA \$1.60

61-16428

Trans. of Zeitschrift für Physik (West Germany) 1960,
v. 159, no. 3, p. 360-368.

DESCRIPTORS: *Light, *Polarization, *Carbon black,
*Particles, Reflection, Scattering.

The state of polarization of light entering into the
thinner medium upon total reflection is examined by
means of scattering particles. The results are in
agreement with theoretical expectations. The calcu-
lated value is obtained in particular for the ratio of the
longitudinal component to the component which is
perpendicular to the boundary plane. Carbon black
particles are used as scattering particles. A separate
(Physics--Optics, TT, v. 6, no. 5) (over)

61-16428

I. Fleischmann, R.
II. Witt, R.

180455

Office of Technical Services

Investigations of Drift Pair Formation by Electrons,
by L. Creigee.

GERMAN, per, Zeitschrift fuer Physik, vol. 159,
1960, pp. 433-443.
NTC 71-12955-20H

JULY 71

Properties of Ag_2Se Layers, by W. Sander.
GERMAN, per, Zeitschrift fuer Physik, Vol 159,
1960, pp 456-461.
NTC 71-14787-20L

CIA/FDD XX-983 8-7p

Feb 72

62-18072

Lutz, Heinrich.
THE DECAY OF Gd^{153} . [1962] [26]p. 26 refs.
Order from SLA \$2.60 62-18072

1. Lutz, H.

Trans. of Zeitschrift fur Physik (West Germany)
1960, v. 159, p. 462-477.

DESCRIPTORS: *Gadolinium, *Europium, *Radioac-
tive decay, Radioactive isotopes, *Electron capture,
Crystals, Scintillation counters.

The electron capture decay of Gd^{153} was studied by
mounting the radioactive source in three different
ways: Gd¹⁵³ on the center or built into the lattice
of an NaI(Tl) crystal. The PL/M capture ratio
was measured for disintegration into the 97.5 and 103
KeV level, respectively, and into the 172.5 level of
 Eu^{153} : 0.34 ± 0.02 and 0.65 ± 0.3. These results
were used to determine the disintegration energy of
(Nuclear Physics--Radioactivity, TT, v. 8, no. 9)
(over)

Office of Technical Services

Mathematical Description of Cylindrically Symmetrical
Arcs, by G. Schmitz, J. Uhlenbusch.
GERMAN, per, X Z fuer Physik, Vol CLIX, 1960,
pp 554-562.
NASA TT F-8456

Sci - Phys -
Mar 64

U. S. GOVERNMENT ONLY

251,956

Higher States of Excitation of Color Centers,
by Fritz Luty, 20 pp.
GERMAN, per, Z fuer Physik, Vol CLX, 1960, pp 1-15.
9224353
AEC-ORNL-T-71

Sci-Phys
Aug 64

265,159

Evaluation of the Quantum Experiments With Gold.
by Gottfried Schottky, 15 pp.

GERMAN, por, Zeitschrift fuer Physik, Vol CLX,
~~No 16~~, 1960, 9206073.

pp 16-32

AEC Tr 5619

Sci - Phys

230,693

May 63

Boroffka, Hartmut.

PHOTOCONDUCTIVITY OF ANTHROACENE (Über die
Photoleitung von Anthrazen). [1962] [26]p. 13 refs.
Order from SLA \$2.60

62-14302

Trans. of Zeitschrift für Physik (West Germany) 1960,
v. 160 [no. 1] p. 93-108.

DESCRIPTORS: *Anthracenes, *Photoconductivity,
Electrodes, Photoelectric materials, Single crystals,
Growth, Light, Intensity, Polarization, Illumination,
*Semiconductors.

(Physics--Solid State, TT, v. 9, no. 4)

62-14302

I. Boroffka, H.

Office of Technical Services

Spectral Investigations in the Wavelength Region
Around 1 mm. VI. Design of a Pulsed Mass Radiator
and Its Characteristics as a Spectroscopic Radiation
Source, by Wilfried Eckhardt, 26 pp.

GERMAN, per, Zeitschrift fuer Physik, Vol CLX,
1960, pp 121-143.

CIA/FID XX-1317
NO FOREIGN DISSEM
SLA 63-10274

Sci
Jan 63

218,813

USIB INTERNAL USE ONLY

Spectrum, Zeeman Effect and Electron Levels of
Trivalent Erbium in Crystalline Salts, by XIX
KERN X. H. Hellwege, G. Hafner, H. G. Kahle,
18pp.

Vol CLX
GERMAN, *pt. 2*, Z für Physik, No 160, 1960, pp 149-161.
9800968

ABC-tr-5396

Sci -Phys
Jan 63

220, 836

Kluge, J., Stasiw, O., and Sueptitz, P.
A DIRECT PROOF OF THE WANDERING OF DEFECT-ELECTRONS IN SILVER CHLORIDE. [1961]
14p. (3 figs. omitted) 22 refs.
Order from SLA \$1.60

62-10535

Trans. of [Zeitschrift für Physik] (West Germany)
1960, v. 160, p. 363-373.

DESCRIPTORS: *Silver compounds, *Chlorides, Photoelectrons, Crystals, *Electrons, Conductivity, Drift, Motion.

In an examination of the characteristics of photoelectrons at room temperatures with the help of the Haynes-Shockley impulse method, an effect was noted in AgCl crystals subjected to a particular previous treatment, from which one can ascertain that it is caused by the wandering of defect electrons. An area appears through which a large number of photoelectrons pass. (Physics, TT, v. 8, no. 3) (over)

62-10535

I. Kluge, J.
II. Stasiw, O.
III. Sueptitz, P.

Office of Technical Services

The Mass Spectrum of the Uncharged Fragments From
Electron Bombardment of Molecules, by D. Beck,
O. Osberghaus, 25 pp.

GERMAN, per, Z fuer Physik, Vol CLX, 1960, pp 406-419.
9081353

ANC UCEL-Trans-692

170.215

Sci - Phys
Oct 61

The Attachment of Radioactive Atoms on Aerosols
(Particle Dusts), by Lars Lassen, Gunter Rau, 22 pp.

GERMAN, per, Z fuer Physik, Vol CLX, 1960,
pp 504-519.

CIA 9675947

Sci

Mar 62

188, 031

CEA-tr-A-1085 Uncl.

FIXATION D'ATOMES RADIOACTIFS SUR DES AÉROSOLS.
(Fixation of Radioactive Atoms on Aerosols).
Lars Lassen and Guenter Rau. Translated into
French from Z. Physik, 160: 504-19(1960);
33p.

Chemistry; Physics; Translations MC-4

C-4 NP NSA Dep.(mc); \$3.60(fs), \$1.19(mf)
JCL

N-4

62-14150

Biltz, H., Genzel', L., and Happ, H.
ON THE INFRARED DISPERSION OF ALKALI HAL-
IDES. I. INTERPRETATION OF THE SPECTRA
ACCORDING TO THE THEORY OF BORN AND
HUANG. [1962] 28p. 35 refs.

Order from SLA \$2.60

62-14150

Trans. of Zeitschrift für Physik (West Germany)
1960, v. 160, p. 535-553.

DESCRIPTORS: *Alkali metals, Lithium, Sodium,
Cesium, *Halides, *Crystal structure, *Infrared
spectroscopy, Quantum mechanics.

The infrared spectra of LiF, Na Cl and Cs Br are in-
terpreted according to the dispersion theory of Born
and Huang. This theory takes account of anharmonic
terms in the lattice potential and leads to a frequency-
dependent damping which describes the absorption.
(Physics--Spectroscopy, TT, v. 8, no. 7) (over)

I. Biltz, H.
II. Genzel', L.
III. Happ, H.
IV. Title; Interpretation ...

Office of Technical Services

The Deposition of Radioactive Atoms on Monodisperse
and Polydisperse Aerosols, by L. Lassen, G. Rau,
et al, 692 pp.
GERMAN, per, Z fuer Physik, 1960, 1961. 9224648
AEC-UR-Tr-647

Sci-Phys
Sep 64

267,321

63-10917

Gobrecht, H. and Tausend, A.
OPTICAL PROPERTIES AND BAND MODEL OF
SELENIUM. Nov 61, 25p. 36 refs.

Order from SLA \$2.60

63-10917

Trans. of Z[schichtung] Physik (West Germany)
1961, v. 161, p. 205-220.

DESCRIPTION: *Selenium, Glass, Crystals. *Optical
properties, Determination, *Crystal structure,
Models (Simulations).

The optical constants of amorphous selenium and of
single crystal selenium were measured between 0.4
and 23 microns. Characteristic bands were found
which depended on the orientation of the E-vector with
respect to the crystallographic Z-axis. A band model
of both forms of selenium is described on the basis
of the measurements and some theoretical work.

(Author)

(Physics--Solid State, TT, v. 10, no. 2)

I. Gobrecht, H.
II. Tausend, A.

Office of Technical Services

62-14459

Bonse, U.
MEASUREMENTS OF ANOMALOUS TRANSMISSION
AND X-RAY REFLECTION ON HIGH-QUALITY
GERMANIUM SINGLE CRYSTALS IN THE BRAGG
CASE OF INTERFERENCE: COMPARISON WITH THE
DYNAMIC THEORY OF X-RAY INTERFERENCES.
[1962] [32]p. 33 refs.
Order from SLA \$3.60

62-14459

I. Bonse, U.
II. Title: Comparison...

Trans. of Zeitschrift für Physik (West Germany) 1961,
v. 161, no. 3, p. 310-329.

DESCRIPTORS: *Single crystals, *Germanium, X-ray
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