

JAERI-M

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Bibliography for Thermal Neutron Scattering

(Third Edition, 1971)

Supplement 1

Dec. 1971

The Thermalization Group

Japanese Nuclear Data Committee

Japan Atomic Energy Research Institute

日本原子力研究所
Japan Atomic Energy Research Institute

Bibliography for Thermal Neutron Scattering
(Third Edition, 1971)
Supplement 1

The Thermalization Group
Japanese Nuclear Data Committee
Japan Atomic Energy Research Institute

(Received December 1971)

Abstract

This is the supplement to the Third Edition of the Bibliography for Thermal Neutron Scattering (JAERI 4043). It contains 150 articles collected from June to October in 1971. These articles are needed for the evaluations of the thermal neutron scattering cross sections.

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熱中性子散乱文献集 (第3版, 1971)

サブメント 1

日本原子力研究所

シグマ委員会熱化グループ※

(1971年12月受理)

熱中性子散乱文献集 (第3版, 1971) JAERI 4043の補足版である。

1971年6月から10月までに新たに集められた文献150件を分類, 編集したものである。
集められた文献は熱中性子散乱断面積の評価に必要なもので, 断面積の測定や計算の外に, 固体, 液体, 分子の運動に関する論文も含まれている。

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目次なし

PART 1

LIST OF INDEXES AND KEY WORDS

Bibliography for Thermal Neutron Scattering

(Third Edition, 1971)

Supplement 1

Introduction

The compilation and publication of the Bibliography for Thermal Neutron Scattering have been continued by the Thermalization Group of Japanese Nuclear Data Committee. The bibliography contains the references not only on measurements, calculations and evaluations of thermal neutron scattering cross sections, but also on the basic studies of solids, fluids and molecular dynamics so far as they are concerned with thermal neutron scattering. However, references on the magnetic scattering of thermal neutrons and on the structure analysis by the neutron diffraction are excluded from this bibliography. It covers literatures published on journals, conference proceedings, report series and books.

This is the supplement to the Third Edition of the Bibliography for Thermal Neutron Scattering (JAERI 4043) and contains 150 literatures collected from June to October in 1971. They are ordered and classified by the computer system.

Arrangement

The overall arrangement of the bibliography contains two lists of PART 1 and PART 2, which are indicated in the form of tables.

PART 1.

LIST OF INDEXES AND KEY WORDS

In PART 1, every article is listed under each kind of materials for which it contains pertinent informations. Thus when any one article reports on a number of materials, it is listed for each material separately. The material names are ordered alphabetically in each of six groups which are GENERAL ARTICLES, MONATOMIC ELEMENTS, ALLOYS, INORGANIC COMPOUNDS, ORGANIC COMPOUNDS and ADSORPTION AND SOLUTIONS. Each entry contains an index, the names of first two authors and key words. The index (69-MA-03, for example) is made up of the last two digits of the published year, the first two letters of the last name of the first author and two digits of serial number. According to the index, any one article listed in PART 1 is identified with one of the articles listed in PART 2.

PART 2.

LIST OF REFERENCES

This is a bibliography of all articles, ordered by the year of publication and the last name of the first author, namely index described above. Each entry contains full names of all authors, full title, reference and key words.

Acknowledgment

The compilers would like to express gratitude to Mr. Y. Inami who developed all of the computer programmes for the reference lists. In addition, they would like to thank Mr. Furuya for many helpful comments.

Compilers: M. Sakamoto

J. Chihara

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 70-SI-01 SINGH, PRAKASH LI/ RB/ K/ CS/ ..THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION ..ALKALI METAL
2. 16 MAGNESIUM MG
 70-CZ-01 CZACHOR MG/ CO/ Y ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ BORN-VON KARMAN MODEL ..AXIAL
 70-CZ-02 CZACHOR, RAJCA MG/ CO/ Y ..CALCULATION/ HEXAGONAL METAL/ FREQUENCY SPECTRA
2. 17 NICKEL NI
 71-SI-01 SINGH, SHARMA CU/ AG/ AU/ AL/ NI/ NA/ CR/ FE ..THEORY/ DEBYE-WALLER FACTOR
2. 18 NITROGEN N2
 65-VE-01 VERTEBNVI, DZYUR* N2/ O2 ..EXPERIMENT/ TOTAL CROSS SECTION/ LIQUID/ SOLIDS
2. 19 OXYGEN O2
 65-VE-01 VERTEBNVI, DZYUR* N2/ O2 ..EXPERIMENT/ TOTAL CROSS SECTION/ LIQUID/ SOLIDS
2. 20 POTASSIUM K
 70-PR-01 PRICE, SINGWI* NA/ K/ LI/ RB ..THEORY/ DISPERSION RELATION ..PHONON LIFE TIMES DUE TO ELECTRON-PHONON INTE
 70-SI-01 SINGH, PRAKASH LI/ RB/ K/ CS/ ..THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION ..ALKALI METAL
2. 21 RUBIDIUM Rb
 66-PA-02 PASKIN REVIEW-ARTICLES/ AR/ NA/ CE/ RB ..LIQUID/ THEORY/ STRUCTURE FACTOR/ VELOCITY AUTOCORRELATION FU
 70-PA-01 PAL RB ..THEORY/ FREQUENCY SPECTRUM/ DEBYE TEMP.
 70-PR-01 PRICE, SINGWI* NA/ K/ LI/ RB ..THEORY/ DISPERSION RELATION ..PHONON LIFE TIMES DUE TO ELECTRON-PHONON INTE
 70-SI-01 SINGH, PRAKASH LI/ RB/ K/ CS/ ..THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION ..ALKALI METAL
2. 22 SILVER AG
 71-SI-01 SINGH, SHARMA CU/ AG/ AU/ AL/ NI/ NA/ CR/ FE ..THEORY/ DEBYE-WALLER FACTOR
2. 23 SODIUM NA
 62-CO-01 COCKING, TUMBERFIELD NA ..EXPERIMENT/ TOP SPECTRA ..110DC/ 80DC
 66-OE-01 OEHME, RICHTER CS/ BI/ NA ..STRUCTURE FACTOR
 66-PA-02 PASKIN REVIEW-ARTICLES/ AR/ NA/ CE/ RB ..LIQUID/ THEORY/ STRUCTURE FACTOR/ VELOCITY AUTOCORRELATION FU
 70-NA-01 NAKAHARA NA ..THEORY/ SCATTERING LAW/ LIQUID ..VLASOV EQUATION/ LIQUID METAL
 70-PR-01 PRICE, SINGWI* NA/ K/ LI/ RB ..THEORY/ DISPERSION RELATION ..PHONON LIFE TIMES DUE TO ELECTRON-PHONON INTE
 71-GR-01 GREENFIELD, WISER NA/ PB ..EXPERIMENT/ STRUCTURE FACTOR ..X-RAY DIFFRACTION
 71-NA-01 NAKAHARA NEUTRON-SCATTERING-IN-FLUIDS/ NA ..THEORY/ SCATTERING SIGMA/ LIQUID METAL
2. 24 THALLIUM TL
 71-WO-01 WORLTON, SCHMUNK TL ..EXPERIMENT/ PHONON DISPERSION/ FREQUENCY SPECTRA ..77DK/ 2960
2. 25 TIN SN
 71-PR-02 PRICE, ROWE* SN/ IN-SB ..EXPERIMENT/ PHONON DISPERSION CURVE ..90DK FOR SN/ 300DK FOR IN-SB
2. 26 TITANIUM TI
 68-ND-01 NORTH, ENDERBY* PB/ TI ..STRUCTURE FACTOR
2. 27 VANADIUM V
 51-MC-01 MCREYNOLDS, WEISS V ..EXPERIMENT/ TOTAL CROSS SECTION ..TOTAL REFLECTION FROM MIRROR SURFACE OF V
2. 28 YTTRIUM Y
 70-CZ-01 CZACHOR MG/ CO/ Y ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ BORN-VON KARMAN MODEL ..AXIAL
 70-CZ-02 CZACHOR, RAJCA MG/ CO/ Y ..CALCULATION/ HEXAGONAL METAL/ FREQUENCY SPECTRA
 70-SI-03 SINHA, BRUN* Y ..EXPERIMENT/ LATTICE DYNAMICS/ AS-MODEL FITTING/ FREQUENCY SPECTRA/ SPECIFIC HEAT

3 ALLOYS

3. 1 LEAD-THALLIUM PB-TL
 70-RO-02 ROY, BRUCKHOUSE PB/ PB-TL ..EXPERIMENT/ FREQUENCY SPECTRA/ POLYCRYSTALLINE SAMPLES/ TRIPLE AXIS SPECTROMET
3. 2 NIOBIUM HYDRIDE NB-H
 70-GI-01 GISSLER, ROTHER NB-H ..THEORY/ DIFFUSION OF HYDROGEN IN METAL HYDRIDE/ QUASIELASTIC
 70-GO-01 GOSSLER, ALEFOLD* NB-H ..IMPURITY
3. 3 PALLADIUM HYDRIDE PD-H
 70-BE-01 BEG, ROSS PD-H ..EXPERIMENT/ QUASIELASTIC SCATTERING ..DIFFUSIVE MOTION
 71-RO-01 ROWE, SKOEL* PD-H ..EXPERIMENT/ QUASIELASTIC SCATTERING ..DIFFUSIVE MOTION
3. 4 ZIRCONIUM HYDRIDE ZR-H
 67-GL-01 GLAESER REVIEW ARTICLES/ H2O/ ZR-H/ GRAPHITE/ D2O/ BE/ BE-O ..INCOHERENT APPROXIMATION/ MULTIPLE SCATT
 71-DA-01 DAY, SINCLAIR ZR-H/ H2O/ Co.H7.N/ NA.N.H2 ..EXPERIMENT/ TOF SPECTRA/ PULSED NEUTRON SOURCE

4 INORGANIC COMPOUNDS

4. 1 AMMONIUM CHLORIDE NH_4Cl
 71-JE-01 JEX NH_4Cl ..THEORY/ DISPERSION RELATION
4. 2 AMMONIUM PERCHLORATE NH_4ClO_4
 70-JA-01 JANIK, JANIK* NH_4ClO_4 ..EXPERIMENT/ FREQUENCY SPECTRA
4. 3 AMMONIUM SULFATE $(NH_4)_2SO_4$
 70-DU-01 DOHLBORG, LARSSON* AMMONIUM SULFATE ..EXPERIMENT/ COLD NEUTRON SPECTROMETER/ FERROELECTRICITY/ PHASE TRANS
 71-TR-01 TREFLER $(NH_4)_2SO_4$..FAR INFRARED EXPERIMENT
4. 4 BARIUM TITANATE $BaTiO_3$
 70-SH-04 SHIRANE, AXE* $BaTiO_3$..EXPERIMENT/ LATTICE DYNAMICS
4. 5 CESIUM CHLORIDE $CsCl$
 70-VE-02 VETELINO, MITRA* $CsCl$ / $CsBr$ / CsI ..THEORY/ DISPERSION CURVES ..RIGID ION MODEL/ BORN-MAYER FORCE/ GRUNE
4. 6 CESIUM BROMIDE $CsBr$
 70-VE-02 VETELINO, MITRA* $CsCl$ / $CsBr$ / CsI ..THEORY/ DISPERSION CURVES ..RIGID ION MODEL/ BORN-MAYER FORCE/ GRUNE
4. 7 CESIUM IODIDE CsI
 70-VE-02 VETELINO, MITRA* $CsCl$ / $CsBr$ / CsI ..THEORY/ DISPERSION CURVES ..RIGID ION MODEL/ BORN-MAYER FORCE/ GRUNE
4. 8 COPROUS CHLORIDE $CuCl$
 71-CA-01 CARABATOS, MENNON* $CuCl$..EXPERIMENT/ PHONON DISPERSION CURVES/ ROOM TEMP.
4. 9 GALLIUM PHOSPHIDE GaP
 71-BA-02 BANERJEE, VARSHNI ZnS / GaP / SiC ..THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA/ DEBYE TEMPERATURE
4. 10 HEAVY WATER D_2O
 67-GL-01 GLAESER REVIEW-ARTICLES/ H_2O / $Zr-H$ / GRAPHITE/ D_2O / Be / BeO ..INCOHERENT APPROXIMATION/ MULTIPLE SCATT
 67-KA-01 KADOTANI, IJIMA D_2O ..THEORY/ PHONON SPECTRUM/ SCATTERING FUNCTION/ 295,423DK
 69-BU-01 BUTLAND, CHUDLEY HEAVY WATER ..TOTAL CROSS SECTION/ DIFFUSION COEFFICIENT
4. 11 HYDROGEN CHLORIDE HCl
 71-LU-01 LURIE, FARPENTER HCl ..EXPERIMENT/ THEORY/ GAS STATE/ SCATTERING SIGMA
 71-NI-03 NISHIGORI, SEKIYA NEUTRON-SCATTERING-IN-FLUIDS/ HCl ..THEORY/ SCATTERING SIGMA/ GAS
4. 12 HYDROGEN FLUORIDE Hf
 69-AX-01 AXMANN, BIEM* Hf ..EXPERIMENT/ CALCULATION/ LATTICE DYNAMICS/ DISPERSION CURVE/ FREQUENCY SPECTRA
4. 13 INDIUM ANTIMONIDE $InSb$
 71-PR-02 PRICE, ROWE* Sn $InSb$..EXPERIMENT/ PHONON DISPERSION CURVE ..90DK FOR Sn / 300DK FOR $InSb$
4. 14 LEAD METATITANATE $PbTiO_3$
 70-SH-03 SHIRANE, AXE $PbTiO_3$..EXPERIMENT/ DISPERSION RELATION/ FERROELECTRICITY
4. 15 LEAD ZIRCONATE $PbZrO_3$
 70-ZE-01 ZEIN, ZINENKO* $SrTiO_3$ / $PbZrO_3$..THEORY/ LATTICE DYNAMICS/ FERROELECTRICITY/ PHASE TRANSITION
4. 16 LIGHT WATER H_2O
 60-KH-01 KHURCHANDARI, RAHMAN H_2O ..THEORY/ ELASTIC SCATTERING CROSS SECTION ..RIGID ASYMMETRIC ROTOR MODEL
 67-GL-01 GLAESER REVIEW-ARTICLES/ H_2O / $Zr-H$ / GRAPHITE/ D_2O / Be / BeO ..INCOHERENT APPROXIMATION/ MULTIPLE SCATT
 69-ES-01 ESCH, YFATER* H_2O ..EXPERIMENT/ DOUBLE DIFFERENTIAL SCATTERING CROSS SECTION/ 27,110,270DC/ LINAC TOP
 69-SH-01 SHAWVER, DEAN H_2O ..THEORY/ LATTICE DYNAMICS/ FREQUENCY SPECTRA
 71-DA-01 DAY, SINCLAIR $Zr-H$ / H_2O / C_6H_7N / $NaOH_2$..EXPERIMENT/ TOP SPECTRA/ PULSED NEUTRON SOURCE
4. 17 MAGNESIUM OXIDE MgO
 71-GI-02 GILLIS MgO ..THEORY/ LATTICE VIBRATION
4. 18 MAGNESIUM STANIDE Mg_2Sn
 70-BE-02 BERGSMAN Mg_2Sn / ZnS ..EXPERIMENT/ TRIPLÉ AXIS SPECTROMETER/ PHONON DISPERSION RELATION
4. 19 POTASSIUM AZIDE K_3N_3

- 70-RA-02 RAO, TREVINO K.N3 ..THEORY/ LATTICE DYNAMICS/ GROUP-THEORETICAL ANALYSIS
4. 20 POTASSIUM CHLORIDE K.CL
 70-RA-04 RAUNIO, ROLANDSON NA.CL/ K.CL/ RB.CL/ RB.F ..THEORY/ DISPERSION CURVES/ SHELL MODEL
 70-RE-01 REID, SMITH NA.F/ NA.CL/ NA.BR/ NA.I/ K.CL/ K.BR ..THEORY/ SOLID/ DEBYE-WALLER FACTOR ..SHELL MODEL/ ROOT
4. 21 POTASSIUM TANTALATE K.TA.O3
 70-HA-01 HARADA, AXE+ K.TA.O3/ SR.TI.O3/ RB.MN.F3 ..EXPERIMENT/INELASTIC STRUCTURE FACTOR/ PHONON EIGENVECTOR/ FERR
4. 22 RUBIDIUM CHLORIDE RB.CL
 70-RA-04 RAUNIO, ROLANDSON NA.CL/ K.CL/ RB.CL/ RB.F ..THEORY/ DISPERSION CURVES/ SHELL MODEL
4. 23 RUBIDIUM FLUORANGANATE RB.MN.F3
 70-HA-01 HARADA, AXE+ K.TA.O3/ SR.TI.O3/ RB.MN.F3 ..EXPERIMENT/INELASTIC STRUCTURE FACTOR/ PHONON EIGENVECTOR/ FERR
4. 24 RUBIDIUM FLUORIDE RB.F
 70-RA-04 RAUNIO, ROLANDSON NA.CL/ K.CL/ RB.CL/ RB.F ..THEORY/ DISPERSION CURVES/ SHELL MODEL
4. 25 SILICON CARBIDE SI.C
 71-BA-02 BANFRJEE, VARSHNI ZN.S/ GA.P/ SI.C ..THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA/ DEBYE TEMPERATURE
4. 26 SODAMIDE NA.N.H2
 71-DA-01 DAY, SINCLAIR ZR.H/ H2.O/ C6.H7.N/ NA.N.H2 ..EXPERIMENT/ TOF SPECTRA/ PULSED NEUTRON SOURCE
4. 27 SODIUM AZIDE NA.N3
 70-RA-03 RAO, TREVINO NA.N3 ..THEORY/ LATTICE DYNAMICS/ GROUP-THEORETICAL ANALYSIS
4. 28 SODIUM BROMIDE NA.BR
 70-RE-01 REID, SMITH NA.F/ NA.CL/ NA.BR/ NA.I/ K.CL/ K.BR ..THEORY/ SOLID/ DEBYE-WALLER FACTOR ..SHELL MODEL/ ROOT
 70-SI-02 SINGH, VERMA NA.F/ NA.BR/ NA.CL/ NA.I ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION ..MODIFIED SHE
4. 29 SODIUM CHLORIDE NA.CL
 70-RA-04 RAUNIO, ROLANDSON NA.CL/ K.CL/ RB.CL/ RB.F ..THEORY/ DISPERSION CURVES/ SHELL MODEL
 70-RE-01 REID, SMITH NA.F/ NA.CL/ NA.BR/ NA.I/ K.CL/ K.BR ..THEORY/ SOLID/ DEBYE-WALLER FACTOR ..SHELL MODEL/ ROOT
 70-SI-02 SINGH, VERMA NA.F/ NA.BR/ NA.CL/ NA.I ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION ..MODIFIED SHE
4. 30 SODIUM FLUORIDE NA.F
 70-RE-01 REID, SMITH NA.F/ NA.CL/ NA.BR/ NA.I/ K.CL/ K.BR ..THEORY/ SOLID/ DEBYE-WALLER FACTOR ..SHELL MODEL/ ROOT
 70-SI-02 SINGH, VERMA NA.F/ NA.BR/ NA.CL/ NA.I ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION ..MODIFIED SHE
4. 31 SODIUM IODIDE NA.I
 70-RE-01 REID, SMITH NA.F/ NA.CL/ NA.BR/ NA.I/ K.CL/ K.BR ..THEORY/ SOLID/ DEBYE-WALLER FACTOR ..SHELL MODEL/ ROOT
 70-SI-02 SINGH, VERMA NA.F/ NA.BR/ NA.CL/ NA.I ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION ..MODIFIED SHE
4. 32 SODIUM NITRATE NA.N.O3
 70-RA-01 RAO, TREVINO+ NA.N.O3 ..THEORY/ GROUP-THEORETICAL ANALYSIS/ LATTICE DYNAMICS
4. 33 STRONTIUM TITANATE SR.TI.O3
 70-HA-01 HARADA, AXE+ K.TA.O3/ SR.TI.O3/ RB.MN.F3 ..EXPERIMENT/INELASTIC STRUCTURE FACTOR/ PHONON EIGENVECTOR/ FERR
 70-ZE-01 ZEIN, ZINENPO+ SR.TI.O3/ PB.ZR.O3 ..THEORY/ LATTICE DYNAMICS/ FERROELECTRICITY/ PHASE TRANSITION
4. 34 ZINC OXIDE ZN.O
 70-WE-01 WEGNER ZN.O ..DISPERSION RELATION
4. 35 ZINC SULFIDE ZN.S
 70-BE-02 BERGSMAN MG2.SN/ ZN.S ..EXPERIMENT/ TRIPLE AXIS SPECTROMETER/ PHONON DISPERSION RELATION
 70-BE-03 BERGSMAN ZN.S ..EXPERIMENT/ DISPERSION CURVES ..RIGID ION MODEL/ SHELL MODEL
 71-BA-02 BANFRJEE, VARSHNI ZN.S/ GA.P/ SI.C ..THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA/ DEBYE TEMPERATURE
4. 36 ZIRCONIUM TELLURIDE ZN.TE
 70-VE-01 VETELING, MITRA+ ZN.TE ..DISPERSION RELATION, FREQUENCY SPECTRUM, DEBYE TEMPERATURE, MULTI PHONON INFRARED

5 ORGANIC COMPOUNDS

5. 1 ACETIC ACID C₂H₄O₂
 67-AL-01 ALDRED, EDEN* ACETIC ACID/ METHANOL **EXPERIMENT/ SUBSTITUTION OF DEUTERIUM AND FLUORINE
 70-CO-01 COLLINS, HAYWOOD FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC
5. 2 ANILINE C₆H₇N
 71-DA-01 DAY, SINCLAIR ZR-H/ H₂O/ C₆H₇N/ NA·N·H₂ **EXPERIMENT/ TOF SPECTRA/ PULSED NEUTRON SOURCE
5. 3 CHLOROBENZENE C₆H₅CL
 69-RE-01 REYNOLDS, WHITE CHLOROBENZENE
5. 4 FORMIC ACID C₁H₂O₂
 70-CO-01 COLLINS, HAYWOOD FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC
5. 5 HEXAMETHYLENETETRAMINE C₆H₁₂N₄
 69-PA-01 PAWLEY C₆H₁₂N₄ **THEORY/ MODEL FITTING/ LATTIC DYNAMICS
5. 6 MALONIC ACID C₃H₄O₄
 70-CO-01 COLLINS, HAYWOOD FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC
5. 7 METHANE C₁H₄
 69-JA-01 JANIK, OTNES* C₁H₄ **EXPERIMENT/ TOF SPECTRA
 71-PR-01 PRESS, DORNER* C₁H₄ **EXPERIMENT/ SOLID C·D₄/ PHONON DISPERSION
5. 8 METHANOL C₁H₄O
 67-AL-01 ALDRED, EDEN* ACETIC ACID/ METHANOL **EXPERIMENT/ SUBSTITUTION OF DEUTERIUM AND FLUORINE
5. 9 OXALIC ACID C₂H₂O₄
 70-CO-01 COLLINS, HAYWOOD FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC
5. 10 P-AZOXYANISOLE
 70-BL-01 BLINC, DIMIC P-AZOXYANISOLE **EXPERIMENT/ DIFFUSION BROADENING/ NEMATIC AND ISOTROPIC LIQUID
5. 11 POLYPROPYLENE POLYPROPYLENE
 71-YA-01 YASUKAWA, KIMURA* POLYPROPYLENE **EXPERIMENT/ TOF SPECTRUM/ FREQUENCY DISTRIBUTION
5. 12 PROPIONIC ACID C₃H₆O₂
 70-CO-01 COLLINS, HAYWOOD FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC
5. 13 TRIFLUOROETHANE C₂H₃Cl₃
 70-BR-01 BRIER, HIGGINS C₂H₃Cl₃ **EXPERIMENT/ SCATTERING LAW/ **TORSIONAL OSCILLATION/ SPHERICAL TOP MOLECULE

PART 2

LIST OF REFERENCES

- 51-NC-01 MCREYNOLDS, A.W./ WEISS, R.J.
COHERENT NEUTRON SCATTERING CROSS SECTION OF V-51
PHYS. REV., V.83, P.171-P.172 (1951)
V. EXPERIMENT/ TOTAL CROSS SECTION ..TOTAL REFLECTION
FROM MIRROR SURFACE OF V
- 54-EG-01 EGELSTAFF, P.A./ SCHOFIELD, P.
THE STRUCTURE AND THERMAL MOTION OF SIMPLE LIQUIDS - 1
CONTEMP. PHYS., V.6, P.274-P.284 (1954)
REVIEW-ARTICLES ..REVIEW/ LIQUID DYNAMICS/ EXPERIMENTAL
PRINCIPLES
- 56-KO-01 KUTHARI, L.S./ SINGWI, K.S./ VISVANATHAN, S.
SCATTERING OF COLD NEUTRONS IN LIQUID METALS AND THE EN-
TROPY OF DISORDER
PHIL. MAG., V.1, P.560-P.567 (1956)
NEUTRON-SCATTERING-IN-FLUIDS ..THEORY/ LIQUID METAL/ QU-
ASI-CRYSTALLINE MODEL
- 58-MA-01 MAZO, R.M./ ZEMACH, A.C.
DIFFRACTION OF NEUTRONS BY IMPERFECT GASES
PHYS. REV., V.109, P.1564-P.1572 (1958)
SCATTERING-THEORIES ..THEORY/ SCATTERING CROSS SECTION
..IMPERFECT GAS/ ELASTIC AND INELASTIC SCATTERING
- 59-EG-01 EGELSTAFF, P.A.
SOLID AND LIQUID STATE RESEARCH WITH COLD NEUTRONS
BRIT. J. APPL. PHYS., V.10, P.1-P.9 (1959)
REVIEW-ARTICLES ..NEUTRON SPECTROSCOPY
- 59-SW-01 SWALIN, R.A.
ON THE THEORY OF SELF-DIFFUSION IN LIQUID METALS
ACTA MET., V.7, P.736-P.740 (1959)
THEORY-OF-FLUIDS ..DIFFUSION/ FLUCTUATION THEORY
- 60-CO-01 COHEN, M.
RELATION BETWEEN INELASTIC NEUTRON SCATTERING AND THERM-
ODYNAMIC FUNCTIONS OF LIQUID HELIUM
PHYS. REV., V.118, P.27-P.41 (1960)
HE ..THEORY-NEUTRON SCATTERING-THERMODYNAMICS
- 60-KH-01 KHUBCHANDARI, P.G./ RAHMAN, A.
SCATTERING OF SLOW NEUTRONS BY THE WATER MOLECULE
J. NUCL. ENERGY, PT. A, V.11, P.89-P.94 (1960)
H2O ..THEORY/ ELASTIC SCATTERING CROSS SECTION ..RIGID
ASYMMETRIC ROTOR MODEL
- 60-VI-01 VINEYARD, G.H.
MOLECULAR DISTRIBUTION FUNCTIONS INVOLVING TWO TIMES
PHYS. FLUIDS, V.3, P.339-P.345 (1960)
THEORY-OF-FLUIDS ..KINETIC THEORY/ TWO TIMES/ TWO BODYS
- 62-CO-01 COCKING, S.J./ TURBERFIELD, K.C.
THE DYNAMICS OF LIQUID SODIUM BY NEUTRON SCATTERING
PROC. PHYS. SOC., LONDON, V.80, P.1201-P.1204 (1962)
NA ..EXPERIMENT/ TOP SPECTRA ..1100C/ 800C
- 62-KO-01 KOKKEDEE, J.J.J.
ANHARMONIC EFFECTS IN THE COHERENT SCATTERING OF NEUTRO-
NS BY CRYSTALS
PHYSICA, V.28, P.374-P.404 (1962)
NEUTRON-SCATTERING-IN-SOLIDS ..THEORY-CRYSTAL-COHERENT
SCATTERING-ANHARMONICITY
- 62-KO-02 KOSALY, G./ TURNER, R.E.
QUASI-CLASSICAL APPROXIMATION IN NEUTRON SCATTERING
PHYS. LETT., V.2, P.266-P.268 (1962)
SCATTERING-THEORIES ..QUASI-CLASSICAL APPROXIMATION
- 62-MA-01 MARADJIN, A.A./ FEIN, A.F.
SCATTERING OF NEUTRONS BY ANHARMONIC CRYSTAL
PHYS. REV., V.128, P.2589-P.2608 (1962)
NEUTRON-SCATTERING-IN-SOLIDS ..THEORY-ANHARMONICITY ..ON
E PHONON COHERENT SCATTERING/ PHONON PEAK WIDTH AND SHI-
FT/ CUBIC CRYSTAL
- 64-SI-01 SINGWI, K.S.
COHERENT SCATTERING OF SLOW NEUTRONS BY A LIQUID
PHYS. REV. A, V.136, P.969-P.980 (1964)
NEUTRON-SCATTERING-IN-FLUIDS ..THEORY/ LIQUID DYNAMICS
..COHERENT SCATTERING/ WIDTH FUNCTION/ QUASI-CRYSTALLINE
E MODEL
- 64-SU-01 SUMMERFIELD, R.C.
ON THE FERMI APPROXIMATION IN THERMAL NEUTRON SCATTERING
ANN. PHYS., N.Y., V.26, P.72-P.80 (1964)
SCATTERING-THEORIES ..THEORIES/ FERMI-APPROXIMATION
- 65-DE-01 DEGENNES, P.G.
QUASI-ELASTIC SCATTERING OF NEUTRONS BY DILUTE POLYMER
SOLUTIONS. I. FREE-DRAINING LIMIT
PHYSICS, V.3, P.37-P.45 (1965)
NEUTRON-SCATTERING-IN-FLUIDS ..THEORY/ QUASI-ELASTIC/ D
ILUTE POLYMER SOLUTIONS
- 65-DO-01 DURNER, B./ PLESSER, T./ STILLER, H.
HIGH FREQUENCY WAVES IN LIQUID LEAD
PHYSICA, V.31, P.1537-P.1539 (1965)
PB ..EXPERIMENT
- 65-EG-01 EGELSTAFF, P.A./ SCHOFIELD, P.
STRUCTURE AND THERMAL MOTION OF SIMPLE LIQUIDS - 2
CONTEMP. PHYS., V.6, P.453-P.464 (1965)
REVIEW-ARTICLES ..REVIEW/ PHYSICAL PROPERTY/ TIME-DEPEN-
DENT DISTRIBUTION/ NEUTRON EXPERIMENT
- 65-LO-01 LOMER, W.M.
NEUTRON SPECTROSCOPY OF SOLIDS - PART 1
CONTEMP. PHYS., V.7, P.278-P.293 (1965)
REVIEW-ARTICLES ..REVIEW/ NEUTRON SCATTERING/ LATTICE D
YNAMICS
- 65-ST-01 STEELE, W.A./ PECORA, R.
SCATTERING FROM FLUIDS OF NONSPHERICAL MOLECULES. I. X-
RAY AND NEUTRONS. II. LIGHT
J. CHEM. PHYS., V.42, P.1863-P.1879 (1965)
SCATTERING-THEORIES ..THEORY/ STATISTICAL MECHANICS/ DI
FFERENTIAL CROSS SECTION/ CORRELATION FUNCTION ..ELASTI
C AND INELASTIC SCATTERING
- 65-VA-01 VAN-LEEUEWEN, J.M.J./ YIP, S.
DERIVATION OF KINETIC EQUATIONS FOR SLOW-NEUTRON SCATTE-
RING
PHYS. REV. A, V.139, P.1138-P.1151 (1965)
SCATTERING-THEORIES ..THEORY ..KINETIC EQUATIONS/ DENSE
GAS
- 65-VE-01 VERTERNYI, V.P./ DZYUB, I.P./ MAISTRENKO, A.N./ PA-
SECHNIK, M.V.
COHERENT EFFECTS DURING THE INTERACTION OF SLOW NEUTRON
S WITH LIQUIDS
AT. ENERG., USSR (SOV. AT. ENERGY), V.18 (V.18), P.
.452-P.455 (P.585-P.589) (1965 (1965))
N2/ O2 ..EXPERIMENT/ TOTAL CROSS SECTION/ LIQUID/ SOLID
S
- 65-ZY-01 JAPANESE NUCLEAR DATA COMMITTEE
THEORETICAL CALCULATION FOR THERMAL NEUTRON SCATTERING
KERNEL
JAERI-1095 (1965)
REVIEW-ARTICLES ..EVALUATION/ SCATTERING LAW
- 66-EG-01 EGELSTAFF, P.A.
MICROSCOPIC TRANSPORT PHENOMENA IN LIQUIDS
REP. PROGR. PHYS., V.29, P.333-P.371 (1966)
REVIEW-ARTICLES ..LIQUID/ CORRELATION FUNCTION/ TRANSPOR-
T PHENOMENA
- 66-II-01 IIJIMA, S.
ONE-PHONON COHERENT SCATTERING OF SLOW NEUTRONS FROM PO-
LYCRYSTALLINE ALUMINUM
J. NUCL. SCI., TECHNOL., TOKYO, V.3, P.161-P.164 (1
966)
AL ..CALCULATION/ PHONON SPECTRUM/ SCATTERING FUNCTION/
COHERENT
- 66-LO-01 LOMER, W.M.
NEUTRON SPECTROSCOPY OF SOLIDS - PART 2
CONTEMP. PHYS., V.7, P.401-P.418 (1966)
REVIEW-ARTICLES ..REVIEW/ MAGNETIC SCATTERING/ SPIN WAV
ES/ CRITICAL SCATTERING/ DEFECT SCATTERING
- 66-OE-01 UEHME, H./ RICHTER, H.
MEASUREMENTS OF COHERENT SCATTERING OF NEUTRONS BY MOLT-
EN SODIUM, CESIUM AND BISMUTH AT VARIOUS TEMPERATURES
NATURWISSENSCHAFTEN, V.53, P.16 (1966)
CS/ BI/ NA ..STRUCTURE FACTOR
- 66-PA-01 PALEVSKI, H.
SLOW NEUTRON STUDIES OF MOLECULAR MOTIONS IN CONDENSED
MATTER
J. CHIM. PHYS., V.63, P.157-P.167 (1966)
REVIEW-ARTICLES ..FILTER-CHOPPER METHOD/ DISPERSION REL
ATION/ FREQUENCY DISTRIBUTION FUNCTION/ QUASI-ELASTIC P
EAK/ TIME OF FLIGHT TECHNIQUES
- 66-PA-02 PASKIN, A.
THE DYNAMIC STRUCTURE OF LIQUIDS
BNL-50080(T-475) (1966)
REVIEW-ARTICLES/ AN/ NA/ CF/ RB ..LIQUID/ THEORY/ STRUC-
TURE FACTOR/ VELOCITY AUTOCORRELATION FUNCTION ..LIQUID
METAL
- 66-SU-01 SUNAKAWA, S./ FUKUI, Y./ NISHIGORI, T.
MULTIPLE SCATTERING OF NEUTRONS AND CORRELATION FUNCTIO-
NS
PROGR. THEORET. PHYS., KYOTO, V.35, P.228-P.240 (1
966)
SCATTERING-THEORIES ..DIFFERENTIAL CROSS SECTION/ MULTI-
PLE SCATTERING
- 66-ZY-01 JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
INELASTIC SCATTERING OF NEUTRONS
JAERI-1113 (1966)
REVIEW-ARTICLES ..DYNAMICS OF SOLIDS AND LIQUIDS
- 67-AL-01 ALDRED, B.K./ EDEN, R.C./ WHITE, J.W.
NEUTRON SCATTERING SPECTROSCOPY OF LIQUIDS
DISCUSS. FARADAY SOC., V.43, P.169-P.183 (1967)
ACETIC ACID/ METHANOL ..EXPERIMENT/ SUBSTITUTION OF DEU-
TERIUM AND FLUORINE
- 67-CU-01 CUSACK, N.E.
THE PHYSICS OF LIQUID METALS

- CONTEMP. PHYS., V.8, P.583-P.606 (1967)
 REVIEW-ARTICLES .. LIQUID METAL/ PHYSICAL PROPERTIES
- 67-DO-01 DORNER, B./ PLESSER, T./ STILLER, H.
 BRILLOUIN SCATTERING OF NEUTRONS FROM LIQUIDS
 DISCUSS. FARADAY SOC., V.43, P.160-P.168 (1967)
 PB .. EXPERIMENT/ POLYCRYSTAL/ LIQUID/ DISPERSION CURVES
- 67-EG-01 EGELSTAFF, P.A.
 RADIATION SCATTERING STUDIES OF THE STRUCTURE AND TRANSPORT PROPERTIES OF LIQUIDS
 DISCUSS. FARADAY SOC., V.43, P.149-P.159 (1967)
 REVIEW-ARTICLES .. LIQUID/ STRUCTURE/ TRANSPORT PROPERTIES/ NEUTRON SCATTERING
- 67-EG-02 EGELSTAFF, P.A.
 RADIATION SCATTERING STUDIES OF THE STRUCTURE AND TRANSPORT PROPERTIES OF LIQUIDS
 DISCUSS. FARADAY SOC., V.43, P.149-P.159 (1967)
 REVIEW-ARTICLES .. THEORETICAL BACKGROUND
- 67-GL-01 GLAESER, W.
 A REVIEW OF SCATTERING LAW STUDIES FOR MODERATORS
 KFK 602 (1967)
 REVIEW-ARTICLES/ H₂O/ ZR-H/ GRAPHITE/ D₂O/ BE/ BE₂O₃ .. INCOHERENT APPROXIMATION/ MULTIPLE SCATTERING/ SCATTERING LAW/ FREQUENCY SPECTRUM/ EXPERIMENT/ THEORY/ LIQUID/ SOLID/ SIGMA(E)/ SIGMA(E,THETA)/ NEUTRON SPECTRUM
- 67-KA-01 KADOTANI, H./ IJIMA, S.
 ON THE COHERENT SCATTERING OF SLOW NEUTRONS FROM HEAVY WATER
 J. NUCL. SCI. TECHNOL., TOKYO, V.4, P.625-P.627 (1967)
 D₂O .. THEORY/ PHONON SPECTRUM/ SCATTERING FUNCTION/ 29 5+423DK
- 67-HA-01 RAHMAN, A.
 COLLECTIVE COORDINATES IN CLASSICAL SYSTEMS
 PHYS. REV. LETT., V.19, P.420-P.421 (1967)
 NEUTRON-SCATTERING-IN-FLUIDS .. THEORY
- 67-RA-02 RAMASESHEN, S./ VISWANATHAN, K.S.
 ANOMALOUS NEUTRON SCATTERING BY CRYSTALS AND THE AMPLITUDES OF LATTICE WAVES
 ACTA CRYSTALLOGR., SECT. A, V.26, P.364 (1967)
 SCATTERING-THEORIES .. ANOMALOUS SCATTERING/ POLARIZATION VECTOR/ ONE-PHONON SCATTERING
- 67-SC-01 SCHNEIDER, T./ STOLL, E./ SZABO, N.
 HELV. PHYS. ACTA, V.40, P.817-P.819 (1967)
 THEORY-OF-FLUIDS .. COLLECTIVE EXCITATION/ LIQUID METAL/ DISPERSION CURVE
- 68-AN-01 ANDRUS, W.S./ MUETHER, H.R./ PALEVSKY, H.
 INELASTIC SCATTERING OF COLD NEUTRONS FROM LIQUID ARGON AT ELEVATED TEMPERATURES
 PHYS. LETT., A, V.26, P.152-P.153 (1968)
 AR .. LIQUID/ EXPERIMENT .. QUASI-ELASTIC PEAK/ TEMPERATURE DEPENDENCE/ 87.97,111.124 DEG.KELVIN/ WIDTH VS. MOMENTUM TRANSFER
- 68-GL-01 GLASS, L./ RICE, S.A.
 NEW APPROXIMATION FOR THE CALCULATION OF NEUTRON SCATTERING FROM A SIMPLE LIQUID
 PHYS. REV., V.188, P.186-P.194 (1968)
 NEUTRON-SCATTERING-IN-FLUIDS .. THEORY/ CORRELATION FUNCTION/ DIFFERENTIAL SCATTERING CROSS SECTION
- 68-GL-02 GLASS, L./ RICE, S.A.
 UNIFIED APPROXIMATION FOR THE VELOCITY AUTOCORRELATION FUNCTION AND THE STRUCTURE FUNCTION OF A SIMPLE LIQUID
 PHYS. REV., V.176, P.239-P.249 (1968)
 THEORY-OF-FLUIDS .. LIQUID/ CORRELATION FUNCTION/ THEORY/ NEUTRON SCATTERING .. ONE-PARTICLE AND TWO-PARTICLE MOTIONS IN MONATOMIC LIQUID
- 68-GR-01 GROSS, E.P./ WISNIEWSKY, D.
 SPACE-TIME CORRELATION FUNCTIONS FOR THE ENKOG DENSE GAS AS THEORY
 PHYS. FLUIDS, V.11, P.1387-P.1394 (1968)
 THEORY-OF-FLUIDS .. KINETIC EQUATION/ HARD SPHERE GAS
- 68-LE-01 LEBOWITZ, J.L./ PERCUS, J.K./ SYKES, J.
 TIME EVOLUTION OF THE TOTAL DISTRIBUTION FUNCTION OF A ONE-DIMENSIONAL SYSTEM OF HARD RODS
 PHYS. REV., V.171, P.224-P.235 (1968)
 THEORY-OF-FLUIDS .. THEORY .. TIME DEPENDENT DISTRIBUTION FUNCTION/ ONE-DIMENSIONAL SYSTEM
- 68-NO-01 NORTH, D.M./ ENDERBY, J.E./ EGELSTAFF, P.A.
 THE STRUCTURE FACTOR FOR LIQUID METALS I. THE APPLICATION OF NEUTRON DIFFRACTION TECHNIQUES.
 J. PHYS., C, LONDON, V.1, P.784 (1968)
 PB/ TI .. STRUCTURE FACTOR
- 68-PE-01 PERCUS, J.K./ YEVICK, G.J.
 DIRECT CORRELATION FUNCTION IN SPACE AND TIME
 PHYS. FLUIDS, V.11, P.2050-P.2052 (1968)
 THEORY-OF-FLUIDS .. THEORY/ DIRECT CORRELATION FUNCTION
- 68-RI-01 RICHTER, J./ VOSS, K.
 NEW MODEL FOR THE CALCULATION OF NEUTRON SCATTERING
 PHYS. LETT., A, V.28, P.376-P.377 (1968)
 AR .. THEORY/ LIQUID/ QUASI-ELASTIC SCATTERING .. LINEARIZED VLASOV EQUATION
- 68-ZY-01 JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
 PROCEEDINGS OF THE SECOND CONFERENCE ON INELASTIC NEUTRON SCATTERING IN SOLIDS AND LIQUIDS, TOKAI 1967
 JAERI-1197 (1968)
 REVIEW-ARTICLES .. DYNAMICS OF SOLIDS AND LIQUIDS
- 69-AX-01 AXMANN, A./ BIEM, W./ BORRICH, P./ HOSSFEL, F./ STILLER, H.
 LATTICE DYNAMICS OF SOLID HYDROFLUORIC ACID
 DISCUSS. FARADAY SOC., V.48, P.69-P.77 (1969)
 H₂F .. EXPERIMENT/ CALCULATION/ LATTICE DYNAMICS/ DISPERSION CURVE/ FREQUENCY SPECTRA
- 69-BO-01 BORGONOVI, G.M.
 COHERENT SCATTERING LAW FOR POLYCRYSTALLINE BERYLLIUM
 GA-9364 (1969)
 BE .. CALCULATION/ COHERENT/ POLYCRYSTAL/ SCATTERING LAW
- 69-BU-01 BUTLAND, A.T.D./ CHUDLEY, C.T.
 A REVIEW OF THERMAL NEUTRON DIFFUSION DATA FOR HEAVY WATER AND ITS CONSEQUENCES FOR NEUTRON SCATTERING LAW DODELS.
 AEEW-R-685 (1969)
 HEAVY WATER .. TOTAL CROSS SECTION/ DIFFUSION COEFFICIENT
- 69-ES-01 ESCH, L.J./ YFATER, M.L./ MOOR, W.E./ SEEMANN, K.W.
 THE TEMPERATURE DEPENDENCE OF NEUTRON INELASTIC SCATTERING FROM WATER
 RPI-328-210 (1969)
 H₂O .. EXPERIMENT/ DOUBLE DIFFERENTIAL SCATTERING CROSS SECTION/ 27.170,270DC/ LINAC TOP
- 69-JA-01 JANIK, J.A./ OTNES, K./ SOLT, G./ KOSALY, G.
 LATTICE VIBRATIONS AND MOLECULAR ROTATION IN SOLID METHANE NEAR THE MELTING POINT
 DISCUSS. FARADAY SOC., V.48, P.87-P.92 (1969)
 C₂H₆ .. EXPERIMENT/ TOP SPECTRA
- 69-PA-01 PAWLEY, G.S.
 MOLECULAR CRYSTAL PHONON DISPERSION CURVES AND MODEL FITTING
 DISCUSS. FARADAY SOC., V.48, P.125-P.130 (1969)
 C₆H₁₂ .. THEORY/ MODEL FITTING/ LATTICE DYNAMICS
- 69-RE-01 REYNOLDS, P.A./ WHITE, J.W.
 INELASTIC NEUTRON SCATTERING FROM MOLECULAR AND CRYSTAL EXCITATIONS IN AROMATIC MOLECULAR CRYSTALS
 DISCUSS. FARADAY SOC., V.48, P.131-P.147 (1969)
 CHLOROBENZENE
- 69-SC-01 SCHNEIDER, T./ STOLL, E./ SZABO, N.
 ZERO SOUND DISPERSION LAW IN CLASSICAL LIQUIDS
 SOLID STATE COMMUN., V.7, P.501 (1969)
 NEUTRON-SCATTERING-IN-FLUIDS/ AR .. DISPERSION
- 69-SH-01 SHAWYER, R.E./ DEAN, P.
 ATOMIC VIBRATIONS IN HEXAGONAL ICE I
 DISCUSS. FARADAY SOC., V.48, P.102-P.107 (1969)
 H₂O .. THEORY/ LATTICE DYNAMICS/ FREQUENCY SPECTRA
- 70-AI-01 AICAWADI, N.K.
 AN ESTIMATE FOR THE LIFETIMES OF THE COLLECTIVE MODES IN A SIMPLE CLASSICAL LIQUID
 PHYSICA, V.49, P.345-P.356 (1970)
 THEORY-OF-FLUIDS .. THEORY/ COLLECTIVE MODE/ LIFETIME/ MODE-MODE INTERACTION
- 70-AN-01 ANDRIESE, C.D.
 ATOMIC MOTION IN GASEOUS ARGON. II. COMPARISON OF MODELS ON THE ATOMIC MOTION IN FLUIDS WITH NEUTRON-SCATTERING DATA
 PHYSICA, V.49, P.502 (1970)
 ARGON .. THEORY .. MODEL WHICH IS USEFUL FOR THE INTERPRETATION OF THE GAS DATA
- 70-AR-01 ARKUSZEWSKI, J.
 MINIGASKET. A CODE FOR THERMAL NEUTRON SCATTERING LAW IN POLYCRYSTALS
 INR-1186-XXI-PR (1970)
 COMPUTER-CODES .. THEORY/ SOLID/ SCATTERING LAW
- 70-BA-01 BARKER, J.A./ KLEIN, M.L.
 ELASTIC CONSTANTS AND PHONON DISPERSION CURVES FOR SOLID ARGON. NEAR 0K
 PHYS. REV., B, V.2, P.4176 (1970)
 AR .. THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ ANHARMONICITY
- 70-BE-01 BEG, M.M./ ROES, D.K.
 THE QUASIELASTIC SCATTERING OF COLD NEUTRONS FROM THE BETA-PHASE OF PALLADIUM HYDRIDE
 J. PHYS., C, LONDON, V.3, P.2487-P.2500 (1970)
 PD-H .. EXPERIMENT/ QUASIELASTIC SCATTERING .. DIFFUSIVE MOTION
- 70-BE-02 BERGSHA, J.

- LATTICE DYNAMICS OF MAGNESIUM STANNIDE AND ZINC BLENDE
RCN-121 (1970)
MG₂SN/ ZN₂S ..EXPERIMENT/ TRIPLE AXIS SPECTROMETER/ PHONON DISPERSION RELATION
- 70-9E-03 BERGSMAN, J.
LATTICE DYNAMICS OF ZINC BLENDE
PHYS. LETT., A, V.32, P.324-P.325 (1970)
ZN₂S ..EXPERIMENT/ DISPERSION CURVES ..RIGID ION MODEL/ SHELL MODEL
- 70-BL-01 BLINC, R./ DIMIC, V.
NEUTRON SCATTERING STUDY OF SELF-DIFFUSION IN LIQUID CRYSTALS
LJS-R-582 (1970)
P-AZOXYANISOLE ..EXPERIMENT/ DIFFUSION BROADENING/ NEMATIC AND ISOTROPIC LIQUID
- 70-B0-01 BUBETIC, M.V./ BARKER, J.A.
LATTICE DYNAMICS WITH THREE-BODY FORCES: ARGON
PHYS. REV. B, V.2, P.169 (1970)
AR ..THEORY/ SOLID/ LATTICE DYNAMICS/ ANHARMONICITY ..THREE-BODY FORCE/ SPECIFIC HEAT/ DEBYE TEMPERATURE
- 70-B0-02 BUCCHIERI, P./ SCOTTI, A./ BEARZI, B./ LÜNGER, A.
ANHARMONIC CHAIN WITH LENNARD-JONES INTERACTION
PHYS. REV. A, V.2, P.2013-P.2019 (1970)
THEORY-OF-SOLIDS ..THEORY, ONE-DIMENSIONAL LATTICE/ ERGODICITY/ NUMERICAL STUDY/ CLASSICAL
- 70-B0-03 BORGONOVII, G.M./ SPREKAK, D.
A CALCULATION OF THE COHERENT NEUTRON SCATTERING FROM POLYCRYSTALLINE BERYLLIUM
NUCL. SCI. ENGR., V.42, P.137 (1970)
BE ..THEORY, COHERENT SCATTERING/ POLYCRYSTAL
- 70-BR-01 BRIER, P.N./ HIGGINS, J.S.
NEUTRON INELASTIC SCATTERING MEASUREMENTS ON 1,1,1-TRIFLUOROETHANE
MOL. PHYS., V.19, P.645-P.657 (1970)
C₂H₃F₃ ..EXPERIMENT/ SCATTERING LAW/ ..TORSIONAL OSCILLATION/ SPHERICAL TOP MOLECULE
- 70-BR-02 BRUIN, C./ HASMAN, A.
ON THE COHERENT INTERMEDIATE SCATTERING FUNCTION OF GASEOUS ARGON AS DETERMINED BY INELASTIC NEUTRON SCATTERING AND MOLECULAR DYNAMICS CALCULATIONS
PHYS. LETT., A, V.33, P.338 (1970)
ARGON ..INTERMEDIATE SCATTERING FUNCTION/ STRUCTURE FACTOR/ GAS
- 70-CO-01 COLLINS, M.F./ HAYWOOD, B.C.
VIBRATION SPECTRA OF CARBOXYLIC ACIDS BY NEUTRON SPECTROSCOPY
J. CHEM. PHYS., V.52, P.5740-P.5745 (1970)
FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOCHLOROACETIC ACID/ TRICHLOROACETIC ACID/ TRIFLUOROACETIC ACID/ PENTAFLUOROPENTANIC ACID/ MALEIC ACID/ L-TARTARIC ACID ..EXPERIMENT/ FREQUENCY SPECTRA/ SOLID/ CARBOXYLIC ACID ..BE DETECTOR METHOD
- 70-CO-02 CORNGOLD, N./ DIDERSTADT, J.J.
PERTURBATIVE THEORY OF SELF-DIFFUSION IN CLASSICAL MANY-PARTICLE SYSTEMS. I. VELOCITY AUTOCORRELATION FUNCTION.
PHYS. REV. A, V.2, P.136 (1970)
THEORY-OF-FLUIDS ..CORRELATION FUNCTION
- 70-CZ-01 CZACHUR, A.
SIMPLE MODEL OF LATTICE DYNAMICS FOR MAGNESIUM, COBALT AND YTTRIUM
INR-1189/1/PS (1970)
MG/ CO/ Y ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ BORN-VON KARMAN MODEL ..AXIAL SYMMETRY MODEL/ ELASTIC CONSTANT/ HEXAGONAL CLOSE-PACKED CRYSTAL
- 70-CZ-02 CZACHUR, A./ RAJCA, A.
SIMPLE MODEL OF LATTICE DYNAMICS FOR MAGNESIUM, COBALT AND YTTRIUM. PART 2
INR-1219/ 2/ PS (1970)
MG/ CO/ Y ..CALCULATION/ HEXAGONAL METAL/ FREQUENCY SPECTRA
- 70-DO-01 DOHLBORG, U./ LARSSON, K.F./ PIKMAJER, E.
ROTATIONAL MOTIONS IN SOLIDS. THE FERROELECTRIC TRANSITION IN (NH₄)₂S₄
PHYSICA, V.49, P.1 (1970)
AMMONIUM SULFATE ..EXPERIMENT/ COLD NEUTRON SPECTROMETER/ FERROELECTRICITY/ PHASE TRANSITION/ ROTATIONAL MOTION/ ANGULAR CORRELATION FUNCTION
- 70-F0-01 FURSTER, D./ MARINI, P.C.
KINETIC THEORY OF A WEAKLY COUPLED FLUID
PHYS. REV. A, V.2, P.1575 (1970)
THEORY-OF-FLUIDS ..KINETIC THEORY
- 70-GI-01 GISSLER, W./ KOTHER, H.
THEORY OF THE QUASIELASTIC NEUTRON SCATTERING BY HYDROGEN IN FCC METALS APPLYING A RANDOM FLIGHT METHOD
PHYSICA, V.50, P.380-P.390 (1970)
NB-H ..THEORY/ DIFFUSION OF HYDROGEN IN METAL HYDRIDE/ QUASIELASTIC
- 70-GO-01 GISSLER, W./ ALEFELD, G./ SPRINGER, T.
QUASIELASTIC NEUTRON SCATTERING BY HYDROGEN IN NIOBIUM
J. PHYS. CHEM. SOLIDS, V.31, P.2361 (1970)
NB-H ..IMPURITY
- 70-HA-01 HARADA, J./ AXEL, J.D./ SHIRANE, G.
DETERMINATION OF THE NORMAL VIBRATIONAL DISPLACEMENTS IN SEVERAL PEROVSKITES
ACTA CRYSTALLOGR., SECT. A, V.26, P.608 (1970)
K₂TaO₃/ SrTiO₃/ RbMnF₃ ..EXPERIMENT/ INELASTIC STRUCTURE FACTOR/ PHONON EIGENVECTOR/ FERROELECTRICITY
- 70-JA-01 JANIK, J.A./ JANIK, J.M./ MAYER, J.
QUASI-FREE ROTATION OF AMMONIUM ION IN CRYSTALLINE NH₄CL₀₄
INP-726/PS (1970)
NH₄CL₀₄ ..EXPERIMENT/ FREQUENCY SPECTRA
- 70-KA-01 KADOTANI, H.
THRUSH: A CODE FOR CALCULATING THERMAL NEUTRON SCATTERING KERNEL
JAEI-MEMO 4211 (1970)
COMPUTER-CODES ..CODE MANUAL
- 70-KE-01 KERR, W.C./ PATHAK, K.N./ SINGWI, K.S.
NEUTRON SCATTERING FROM LIQUID HELIUM II AT LARGE MOMENTUM TRANSFER AND THE CONDENSATE FRACTION
PHYS. REV. A, V.2, P.2416-P.2426 (1970)
HELIUM ..THEORY/ LIQUID/ SCATTERING LAW/ GAUSSIAN APPROXIMATION ..LARGE MOMENTUM TRANSFER/ ODC
- 70-KN-01 KNOPOFF, L./ SHAPIRO, J.N.
PSEUDO-GRUENEISEN PARAMETER FOR LIQUIDS
PHYS. REV. B, V.1, P.3893-P.3895 (1970)
THEORY-OF-FLUIDS ..THEORY
- 70-KO-01 KUEHLER, T.R./ GILLIS, N.S./ WALLACE, D.C.
ANHARMONIC INTERACTION IN ALUMINUM
PHYS. REV. B, V.1, P.4521 (1970)
AL ..THEORY/ ANHARMONICITY/ PHONON WIDTHS AND LIFETIMES/ METAL
- 70-NA-01 NAKAHARA, Y.
THERMAL NEUTRON SCATTERING FROM SIMPLE LIQUID METALS
JAEI-MEMO-4191 (1970)
NA ..THEORY/ SCATTERING LAW/ LIQUID ..VLASOV EQUATION/ LIQUID METAL
- 70-NI-01 NISHIGORI, T.
QUASICLASSICAL APPROXIMATION FOR SLOW NEUTRON SCATTERING
PROGR. THEORET. PHYS., KYOTO, V.43, P.1423-P.1444 (1970)
SCATTERING-THEORIES ..THEORY/ QUASICLASSICAL APPROXIMATION
- 70-OL-01 OLIVI, L.
THE SCATTERING OF SLOW NEUTRONS BY ORTHOHYDROGEN
EUR-4496E (1970)
HYDROGEN ..MOLECULAR ROTATION/ SIGMA(THETA,E) ..DIFFERENTIAL CROSS SECTION
- 70-PA-01 PAL, S.
FREQUENCY SPECTRUM AND DEBYE TEMPERATURE OF RUBIDIUM
J. PHYS. C, LONDON, V.3, P.112 (1970)
RB ..THEORY/ FREQUENCY SPECTRUM/ DEBYE TEMP.
- 70-PA-02 PAL, S.
PHONON DISPERSION IN LITHIUM
PHYS. REV. B, V.2, P.4741-P.4742 (1970)
LI ..THEORY/ LATTICE VIBRATION/ DISPERSION/ SHARM-JOSHI MODEL
- 70-PA-03 PATHAK, K.N./ SINGWI, K.S.
COLLECTIVE MOTIONS IN CLASSICAL LIQUIDS. II
PHYS. REV. A, V.2, P.2427-P.2434 (1970)
THEORY-OF-FLUIDS/ ARGON ..THEORY/ LIQUID/ SCATTERING LAW/ GAUSSIAN APPROXIMATION
- 70-PR-01 PRICE, D.L./ SINGWI, K.S./ PUSI, M.P.
LATTICE DYNAMICS OF ALKALI METAL IN THE SELF-CONSISTENT SCREENING THEORY
PHYS. REV. B, V.2, P.2983-P.2999 (1970)
NA/ K/ LI/ RB ..THEORY/ DISPERSION RELATION ..PHONON LIFETIMES DUE TO ELECTRON-PHONON INTERACTION
- 70-PR-02 PRICE, D.L./ SHYU, W.W./ SINGWI, K.S./ TOSI, M.P.
A TABULATION OF THE INTERIONIC POTENTIAL IN THE ALKALI METALS
ANL-7761 (1970)
COMPILATIONS ..SOLID/ THEORY ..PAIR POTENTIAL/ METAL
- 70-RA-01 RAO, K.R./ TREVINO, S.F./ LOGAN, K.W.
LATTICE DYNAMICS OF SODIUM NITRATE: A GROUP-THEORETICAL ANALYSIS
J. CHEM. PHYS., V.53, P.4665-P.4661 (1970)
NaNO₃ ..THEORY/ GROUP-THEORETICAL ANALYSIS/ LATTICE DYNAMICS
- 70-RA-02 RAO, K.R./ TREVINO, S.F.
LATTICE DYNAMICS OF POTASSIUM AZIDE: A GROUP-THEORETICAL ANALYSIS
J. CHEM. PHYS., V.53, P.4661-P.4667 (1970)
KN₃ ..THEORY/ LATTICE DYNAMICS/ GROUP-THEORETICAL ANALYSIS

- 70-NA-03 HAO, K.R./ TRIVINO, S.F.
LATTICE DYNAMICS OF SODIUM AZIDE: A GROUP-THEORETICAL ANALYSIS
J. CHEM. PHYS., V.53, P.4624-P.4645 (1970)
NA.N3 ..THEORY/ LATTICE DYNAMICS/ GROUP-THEORETICAL ANALYSIS
- 70-NA-04 HAUNID, G./ ROLANSON, S.
LATTICE DYNAMICS OF NA₂CL₂·CL, RB₂CL AND RB₂F
PHYS. REV. B, V.2, P.2098-P.2103 (1970)
NA₂CL/ K₂CL/ NA₂CL/ RB₂F ..THEORY/ DISPERSION CURVES/ SHELL MODEL
- 70-RE-01 REID, J.S./ SMITH, T.
IMPROVED DEBYE-WALLER FACTORS FOR SOME ALKALI HALIDES
J. PHYS. CHEM. SOLIDS, V.31, P.2689 (1970)
NA₂F/ NA₂CL/ NA₂BR/ NA₂I/ K₂CL/ K₂BR ..THEORY/ SOLID/ DEBYE-WALLER FACTOR ..SHELL MODEL/ ROOT SAMPLING METHOD
- 70-RO-01 RUSS, R.G.
THE HARD-SPHERE MODEL FOR A LIQUID METAL: A COMPARISON WITH EXPERIMENT
PHIL. MAG., V.22, P.573 (1970)
THEORY-OF-FLUIDS ..STRUCTURE FACTOR/ SIGMA(THEA+E) ..COMPRESSIBILITY/ LIQUID METAL
- 70-RO-02 ROY, A.P./ BROCKHOUSE, B.N.
LATTICE FREQUENCY SPECTRA OF PR AND PB40-TL60 BY NEUTRON SPECTROMETRY
CAN. J. PHYS., V.48, P.1741 (1970)
PB/ PR-TL ..EXPERIMENT/ FREQUENCY SPECTRA/ POLYCRYSTALLINE SAMPLES/ TRIPLE AXIS SPECTROMETER/ PHONON LIFETIME/ FORCE-CONSTANT DISORDER/ ALLOW
- 70-SA-01 SANDSTROM, R./ HUEGGER, T.
ANHARMONIC WIDTHS AND SHIFTS IN SIMPLE METALS: APPLICATION TO ALUMINIUM
J. PHYS. CHEM. SOLIDS, V.31, P.1595-P.1611 (1970)
AL ..THEORY/ ANHARMONICITY/ PHONON WIDTHS AND LIFETIMES/ METAL
- 70-SH-01 SHAPIRO, J.N.
LINDEMANN LAW AND LATTICE DYNAMICS
PHYS. REV. B, V.1, P.3982-P.3989 (1970)
THEORY-OF-SOLIDS ..FREQUENCY DISTRIBUTION/ THEORY ..LATTICE DYNAMICAL CALCULATION OF LINDEMANN LAW FOR MELTING POINT/ ALKALI METAL
- 70-SH-02 SHAPIRO, J.N./ KNOPOFF, L.
GRUNEISEN PARAMETER FOR BORN-VON KARMAN LATTICE
PHYS. REV. B, V.1, P.3990-P.3992 (1970)
THEORY-OF-SOLIDS ..THEORY
- 70-SH-03 SHIRANE, G./ AXEL, J.D.
SOFT FERROELECTRIC MODES IN LEAD TITANATE
PHYS. REV. B, V.2, P.195 (1970)
PB₂TiO₅ ..EXPERIMENT/ DISPERSION RELATION/ FERROELECTRICITY
- 70-SH-04 SHIRANE, G./ AXEL, J.D./ HARADA, J./ LINZ, A.
INELASTIC NEUTRON SCATTERING FROM SINGLE-DOMAIN BaTiO₃
PHYS. REV. B, V.2, P.3651-P.3657 (1970)
BaTiO₃ ..EXPERIMENT/ LATTICE DYNAMICS
- 70-SI-01 SINGH, S.N./ PRKASH, S.
PHONON DISPERSION IN ALKALI METALS
PHYSICA, V.50, P.10 (1970)
LI/ RB/ K/ CS/ ..THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION ..ALKALI METAL
- 70-SI-02 SINGH, R.K./ VERMA, M.P.
LATTICE DYNAMICS OF SODIUM HALIDES
PHYS. REV. B, V.2, P.4289 (1970)
NA₂F/ NA₂BR/ NA₂CL/ NA₂I ..THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION ..MODIFIED SHELL MODEL/ DEBYE TEMPERATURE
- 70-SI-03 SINHA, S.K./ BRUN, T.O./ MUEHLSTEIN, L.D./ SAKURAI, J.
LATTICE DYNAMICS OF YTIRIUM AT 295K
PHYS. REV. B, V.1, P.2430-P.2441 (1970)
Y ..EXPERIMENT/ LATTICE DYNAMICS/ AS-MODEL FITTING/ FREQUENCY SPECTRA/ SPECIFIC HEAT
- 70-TA-01 TANI, K.
THEORY OF NEUTRON SCATTERING FROM LATTICE VIBRATIONS
J. PHYS. SOC. JAP., V.29, P.594-P.605 (1970)
NEUTRON-SCATTERING-IN-SOLIDS ..THEORY/ LATTICE VIBRATION/ GENERALIZED THEORY OF NEUTRON SCATTERING
- 70-TO-01 TUNG, E./ RASMI, C./ DESAI, C.
DENSITY FLUCTUATIONS IN SINGLE-COMPONENT FLUIDS
PHYS. REV. A, V.2, P.2129-P.2139 (1970)
THEORY-OF-FLUIDS ..GENERAL THEORY
- 70-VE-01 VETELINO, J.F./ MITRA, S.S./ NAMJOSHI, K.V.
LATTICE DYNAMICS OF ZN₂TE: PHONON DISPERSION, MULTIPHONON INFRARED SPECTRUM, MODE GRUNEISEN PARAMETERS, AND THERMAL EXPANSION
PHYS. REV. B, V.2, P.967 (1970)
ZN₂TE ..DISPERSION RELATION/ FREQUENCY SPECTRUM, DEBYE TEMPERATURE, MULTI PHONON INFRARED SPECTRUM, GRUNEISEN
- CONSTANT, COEFFICIENT OF THERMAL EXPANSION, RIGID ION MODEL
- 70-VE-02 VETELINO, J.F./ MITRA, S.S./ NAMJOSHI, K.V.
LATTICE DYNAMICS, MODE GRUNEISEN PARAMETERS, AND COEFFICIENT OF THERMAL EXPANSION OF CS₂CL, CS₂BR AND CS₂I
PHYS. REV. B, V.2, P.2167-P.2175 (1970)
CS₂CL/ CS₂BR/ CS₂I ..THEORY/ DISPERSION CURVES ..RIGID ION MODEL/ BORN-MAYER FORCE/ GRUNEISEN CONSTANTS
- 70-WE-01 WEGNER, W.
PHONON DISPERSION IN ZINC OXIDE
JUL-673-FF (1970)
ZNO ..DISPERSION RELATION
- 70-WE-02 WERTHAMER, N.R.
NEUTRON SCATTERING FROM PHONONS IN SOLID HELIUM
PHYS. REV. A, V.2, P.2050-P.2060 (1970)
HELIUM ..THEORY/ SOLID ..PHONON RELAXATION
- 70-WE-03 WYMOOTH, J.W./ STEDMAN, R.
FERMI SURFACE OF ALUMINUM FROM KOHN ANOMALIES
PHYS. REV. B, V.2, P.4743-P.4751 (1970)
AL ..EXPERIMENT/ LATTICE DYNAMICS/ FERMI SURFACE/ KOHN ANOMALIES
- 70-ZA-01 ZANDVELD, P./ ANDRIESE, C.D./ BREGMAN, J.D./ HASHAN, A./ VAN LOFF, J.J.
TEMPERATURE DEPENDENCE OF THE ATOMIC SELF-MOTION IN LIQUID ARGON
PHYSICA, V.50, P.211 (1970)
AR ..EXPERIMENT/ LIQUID/ VELOCITY AUTOCORRELATION FUNCTION ..MEAN SQUARE ATOMIC DISPLACEMENT/ QUASI-ELASTIC NEUTRON SCATTERING/ SELF-DIFFUSION COEFFICIENT/ MODIFIED LANGEVIN MODEL/ STOCHASTIC MODEL
- 70-ZE-01 ZEIN, N.E./ ZINENKO, V.I./ SHNEIDER, V.E.
LATTICE DYNAMICS OF THE PHASE TRANSITION IN PEROVSKITE-TYPE ANTIFERROELECTRICS
FIZ. TVERN. TELA (SOV. PHYS. SOLID STATE), V.12 (V.12), P.2326 (P.1858) (1970 (1971))
SR-TiO₃/ PB₂ZrO₃ ..THEORY/ LATTICE DYNAMICS/ FERROELECTRICITY/ PHASE TRANSITION
- 70-ZW-01 ZWANZIG, R./ BIXON, M.
HYDRODYNAMIC THEORY OF THE VELOCITY CORRELATION FUNCTION
PHYS. REV. A, V.2, P.2005-P.2012 (1970)
THEORY-OF-FLUIDS ..CORRELATION FUNCTION/ THEORY/ LIQUID
- 70-ZY-01 JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
PROCEEDINGS OF THE THIRD CONFERENCE ON INELASTIC NEUTRON SCATTERING, TOKAI 1969
JAERI-1197 (1970)
REVIEW-ARTICLES ..DYNAMICS OF SPIN SYSTEM AND POLYMER
- 71-BA-01 BAJAL, J.S./ CHATURVEDI, D.K.
CALCULATION OF THE INCOHERENT SCATTERING CROSS SECTION S(K,ΩGA)-SELF IN NON GAUSSIAN APPROXIMATION FOR CLASSICAL LIQUIDS
J. PHYS. SOC. JAP., V.31, P.431-P.435 (1971)
NEUTRON-SCATTERING-IN-FLUIDS ..THEORY/ SCATTERING CROSS SECTION/ CLASSICAL LIQUID/ NON-GAUSSIAN
- 71-BA-02 BANERJEE, R./ VARSHNI, Y.P.
LATTICE DYNAMICS AND THERMODYNAMIC PROPERTIES OF BETA-ZN₂S, GA₂P AND BETA-SiC
J. PHYS. SOC. JAP., V.30, P.1015-P.1021 (1971)
ZN₂S/ GA₂P/ SiC ..THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA/ DEBYE TEMPERATURE
- 71-CA-01 CARABATOS, C./ HENNION, B./ KUNC, K./ MOUSSA, F./ SCHWARZ, C.
NORMAL MODES OF VIBRATIONS IN CU₂CL
PHYS. REV. LETT., V.26, P.770-P.772 (1971)
CU₂CL ..EXPERIMENT/ PHONON DISPERSION CURVES/ ROOM TEMP
- 71-CH-01 CHEN, Y./ STEELE, W.A.
STATISTICAL MECHANICS OF LINEAR MOLECULES: VI. SOLUTIONS OF THE PERCUS YEVICK INTEGRAL EQUATION FOR A HARD-CORRE MODEL
J. CHEM. PHYS., V.54, P.703-P.710 (1971)
THEORY-OF-SOLIDS ..THEORY/ MOLECULAR DYNAMICS/ LINEAR MOLECULE
- 71-CO-01 COWLEY, R.A./ WOODS, A.O.R.
INELASTIC SCATTERING OF THERMAL NEUTRONS FROM LIQUID HELIUM
CAN. J. PHYS., V.49, P.177-P.200 (1971)
HE ..EXPERIMENT/ LIQUID/ PHONON DISPERSION
- 71-DA-01 DRY, D.H./ SINCLAIR, R.N.
STUDIES OF VIBRATION SPECTRA OF BOUND HYDROGEN ATOMS USING A PULSED NEUTRON SOURCE
AERE-R-6717 (1971)
ZR-H/ H₂O/ C₆H₇N/ NA₂H₂ ..EXPERIMENT/ TOP SPECTRA/ PULSED NEUTRON SOURCE
- 71-DE-01 DESAI, R.C.
SINGLE-PARTICLE MOTION IN SIMPLE CLASSICAL LIQUIDS
PHYS. REV. A, V.3, P.320-P.324 (1971)
THEORY-OF-FLUIDS ..THEORY/ CLASSICAL LIQUID/ SINGLE-PARTICLE

- TITLE MOTION
- 71-GI-01 GILLESSEN, P./BIEM, W.
THEORY OF PHONON DAMPING IN SOLID HELIUM
Z. PHYS., V.242, P.250-P.261 (1971)
HE ..THEORY/ PHONON DAMPING/ SOLID HE
- 71-GI-02 GILLIS, N.S.
SOME ASPECTS OF COVALENT BONDING IN NaCl STRUCTURE CRYSTALS: APPLICATION TO THE LATTICE DYNAMICS OF MgO
PHYS. REV. B, V.3, P.1482-P.1496 (1971)
MgO ..THEORY/ LATTICE VIBRATION
- 71-GR-01 GREENFIELD, A.J./ WISER, N.
THE LOW-Q REGION OF THE STRUCTURE FACTOR FOR LIQUID METALS
PHYS. LETT., A, V.34, P.123-P.124 (1971)
NA/ Pb ..EXPERIMENT/ STRUCTURE FACTOR ..X-RAY DIFFRACTION
- 71-JE-01 JEX, H.
LATTICE DYNAMICS OF N-D₄CL
PHYS. LETT., A, V.34, P.118-P.119 (1971)
N-H₄CL ..THEORY/ DISPERSION RELATION
- 71-LA-01 LARSSON, K.E.
ROTATIONAL MOLECULAR MOTION AND THE TRANSIENT NATURE OF LIQUIDS AS SEEN BY SLOW-NEUTRON SCATTERING
PHYS. REV. A, V.3, P.1006-P.1022 (1971)
NEUTRON-SCATTERING-IN-FLUIDS ..QUASI-ELASTIC-PEAK/ THEORY ..UNCORRELATED TRANSLATIONAL AND ROTATIONAL MOTION
- 71-LE-01 LEIGH, R.S./ SZIGETI, B./ TEWARY, V.K.
FORCE CONSTANTS AND LATTICE FREQUENCIES
PROC. ROY. SOC. LONDON, SER. A, V.320, P.505-P.526 (1971)
THEORY-OF-SOLIDS ..THEORY/ FORCE CONSTANT/ PHONON FREQUENCY
- 71-LU-01 LURIE, N.A./ CARPENTER, J.M.
LOW-ENERGY NEUTRON SCATTERING FROM HYDROGEN CHLORIDE
J. CHEM. PHYS., V.54, P.5193-P.5196 (1971)
H-CL ..EXPERIMENT/ THEORY/ GAS STATE/ SCATTERING SIGMA
- 71-NA-01 NAKAHARA, Y.
THERMAL NEUTRON SCATTERING FROM SIMPLE LIQUID METALS
J. NUCL. SCI. TECHNOL., TOKYO, V.8, P.1-P.15 (1971)
NEUTRON-SCATTERING-IN-FLUIDS/ NA ..THEORY/ SCATTERING SIGMA/ LIQUID METAL
- 71-NI-01 NICKLOW, R.M./ WAKABAYASHI, N./ VIJAYARAGHAVAN, P.R.
LATTICE DYNAMICS OF HOLMIUM
PHYS. REV. B, V.3, P.1229-P.1234 (1971)
HO ..EXPERIMENT/ PHONON DISPERSION CURVES/ FREQUENCY DISTRIBUTION/ SPECIFIC HEAT/ DEBYE TEMP./ ROOM TEMP.
- 71-NI-02 NISHIGORI, T./ SEKIYA, T.
SLOW NEUTRON SCATTERING AND CLASSICAL MEAN-SQUARE DISPLACEMENT FUNCTIONS OF ATOMS
J. NUCL. SCI. TECHNOL., TOKYO, V.8, P.406-P.407 (1971)
NEUTRON-SCATTERING-IN-FLUIDS ..THEORY/ SCATTERING SIGMA/ MEAN-SQUARE DISPLACEMENT
- 71-NI-03 NISHIGORI, T./ SEKIYA, T.
PHONON-TYPE EXPANSION FOR SLOW NEUTRON SCATTERING
J. NUCL. SCI. TECHNOL., TOKYO, V.8, P.319-P.329 (1971)
NEUTRON-SCATTERING-IN-FLUIDS/ H-CL ..THEORY/ SCATTERING SIGMA/ GAS
- 71-NO-01 NOLTING, W.
SIMPLE MODEL FOR MONOATOMIC CLASSICAL LIQUIDS
Z. PHYS., V.242, P.199-P.209 (1971)
THEORY-OF-FLUIDS/ AL/ AR ..THEORY/ VAN-DEWALLE-CORRELATION-FUNCTION
- 71-PR-01 PRESS, W./ DORNER, B./ STILLER, H.
THE ELASTIC CONSTANTS OF SOLID C₆D₆ FROM NEUTRON MEASUREMENTS
SOLID STATE COMMUN., V.9, P.1113-P.1115 (1971)
C₆H₆ ..EXPERIMENT/ SOLID C₆D₆/ PHONON DISPERSION
- 71-PR-02 PRICE, D.L./ ROWE, J.M./ NICKLOW, R.M.
LATTICE DYNAMICS OF GREY TIN AND INDIUM ANTIMONIDE
PHYS. REV. B, V.3, P.1268-P.1279 (1971)
SN/ IN₃S₂ ..EXPERIMENT/ PHONON DISPERSION CURVE ..90DK FOR SN/ 300DK FOR IN₃S₂
- 71-RO-01 ROWE, J.M./ SKOELD, K./ FLOTON, H.E./ RUSH, J.J.
QUASIELASTIC NEUTRON SCATTERING BY HYDROGEN IN THE ALPHA AND BETA PHASES OF VANADIUM HYDRIDE
J. PHYS. CHEM. SOLIDS, V.32, P.41-P.54 (1971)
PD-H ..EXPERIMENT/ QUASIELASTIC SCATTERING ..DIFFUSIVE MOTION
- 71-SI-01 SINGH, N./ SHARMA, P.K.
DEBYE-WALLER FACTORS OF CUBIC METALS
PHYS. REV. B, V.3, P.1141-P.1148 (1971)
CU/ AG/ AU/ AL/ NI/ NA/ CR/ FE ..THEORY/ DEBYE-WALLER FACTOR
- 71-TA-01 TAKAHASHI, H.
QUANTUM THEORY OF CORRELATION FUNCTIONS FOR LIQUID METALS AND NORMAL LIQUIDS IN THE ZERO SOUND WAVE RANGE
PHYSICA, V.51, P.333 (1971)
THEORY-OF-FLUIDS ..THEORY/ LIQUID/ CORRELATION FUNCTION/ SCATTERING LAW ..LIQUID METAL/ TWO TIME GREEN FUNCTION/ NORMAL LIQUID/ EFFECTIVE POTENTIAL
- 71-TA-02 TAKENO, S./ GUDA, M.
A THEORY OF PHONONS IN AMORPHOUS SOLIDS AND ITS IMPLICATIONS TO COLLECTIVE MOTION IN SIMPLE LIQUIDS
PROGR. THEORET. PHYS., KYOTO, V.45, P.331-P.352 (1971)
THEORY-OF-FLUIDS/ THEORY-OF-SOLIDS ..THEORY/ DISORDERED SYSTEM/ AMORPHOUS SOLID/ CLASSICAL LIQUID
- 71-TH-01 THOMAS, I.L.
MOTION OF THE CENTER OF MASS OF ATOMS AND MOLECULES
PHYS. REV. A, V.3, P.1022-P.1026 (1971)
MISCELLANEOUS ..THEORY ..MOTION OF CENTER OF MASS IN PRESENCE OF EXTERNAL RADIATION
- 71-TR-01 TREFLER, M.
THE DYNAMICS OF AMMONIUM ION IN (NH₄)₂S₂O₈
CAN. J. PHYS., V.49, P.1694-P.1696 (1971)
(NH₄)₂S₂O₈ ..FAR INFRARED EXPERIMENT
- 71-WA-01 WASEDA, Y./ SUZUKI, K.
PAIR POTENTIALS IN LIQUID CS AND AR BY THE BORN-GREEN EQUATION
PHYS. LETT., A, V.34, P.64 (1971)
CS/ AR ..THEORY/ LIQUID ..PAIR POTENTIAL/ BORN-GREEN EQUATION
- 71-WO-01 WORTON, T.G./ SCHMUNK, R.E.
LATTICE VIBRATIONS OF THALLIUM AT 77 AND 296K
PHYS. REV. B, V.3, P.4115-P.4123 (1971)
TL ..EXPERIMENT/ PHONON DISPERSION/ FREQUENCY SPECTRA ..77DK/ 296DK
- 71-YA-01 YASUKAWA, T./ KIMURA, M./ WATANABE, N./ YAMADA, Y.
NEUTRON DOWN-SCATTERING SPECTRUM OF ISOTACTIC POLYPROPYLENE
J. CHEM. PHYS., V.55, P.983-P.984 (1971)
POLYPROPYLENE ..EXPERIMENT/ TOF SPECTRUM/ FREQUENCY DISTRIBUTION