

LA-3871-MS

2. 3

CIC-14 REPORT COLLECTION
REPRODUCTION
COPY

LOS ALAMOS SCIENTIFIC LABORATORY
of the
University of California
LOS ALAMOS • NEW MEXICO

A Bibliography on
Nuclear Magnetic Resonance
of Inorganic Fluorides



UNITED STATES
ATOMIC ENERGY COMMISSION
CONTRACT W-7405-ENG. 36

LEGAL NOTICE

This report was prepared as an account of Government sponsored work. Neither the United States, nor the Commission, nor any person acting on behalf of the Commission:

- A. Makes any warranty or representation, expressed or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately owned rights; or
- B. Assumes any liabilities with respect to the use of, or for damages resulting from the use of any information, apparatus, method, or process disclosed in this report.

As used in the above, "person acting on behalf of the Commission" includes any employee or contractor of the Commission, or employee of such contractor, to the extent that such employee or contractor of the Commission, or employee of such contractor prepares, disseminates, or provides access to, any information pursuant to his employment or contract with the Commission, or his employment with such contractor.

This report expresses the opinions of the author or authors and does not necessarily reflect the opinions or views of the Los Alamos Scientific Laboratory.

Printed in the United States of America. Available from
Clearinghouse for Federal Scientific and Technical Information
National Bureau of Standards, U. S. Department of Commerce
Springfield, Virginia 22151
Price: Printed Copy \$3.00; Microfiche \$0.65

LA-3871-MS
UC-4, CHEMISTRY
TID-4500

LOS ALAMOS SCIENTIFIC LABORATORY
of the
University of California
LOS ALAMOS • NEW MEXICO

Report written: December 1967

Report distributed: February 19, 1968

A Bibliography on
Nuclear Magnetic Resonance
of Inorganic Fluorides

Compiled by

Jean Furnish



A BIBLIOGRAPHY ON
NUCLEAR MAGNETIC RESONANCE OF INORGANIC FLUORIDES

INTRODUCTION

For this bibliography only volumes 51 (1957) through 65 (1966) of Chemical Abstracts were consulted. Inorganic fluorides alone, in solvents of any sort, and in complexes with organic and inorganic molecules have been included. All references were indexed under "nuclear magnetic resonance" in Chemical Abstracts.

Most of the references included in this bibliography were published in the period 1957-1966. However, since the search was confined to specific volumes of Chemical Abstracts, and all references therefrom were included, it will be noted that there are some citations earlier than 1957. It may also be pointed out that in order to obtain a somewhat more complete list of references for 1966 it would be necessary to go beyond the cut-off point of volume 65 of Chemical Abstracts. It was not possible to do this in the present case.

Entries in this bibliography are arranged by year with the earliest given first, then alphabetically by author's name. For each item the location of the Chemical Abstracts entry is given following the bibliographic citation. This includes volume and column location number only, i.e., 63:7866f indicates the item is from volume 63 of Chemical Abstracts, and the location is at 7866f within that volume.

1956

NUCLEAR RESONANCE SPECTRA AND THE STRUCTURES OF THE MONO- AND DIHYDRATE OF BORON TRIFLUORIDE
P. T. Ford and R. E. Richards
J. Chem. Soc. 3870-4 (1956)
51:1669d

NITRYL FLUORIDE: A NEW METHOD OF PREPARATION,
NUCLEAR MAGNETIC SPECTRUM, AND STRUCTURE
Richard A. Ogg, Jr., and James D. Ray
J. Chem. Phys. 25, 797-8 (1956)
51:1760f

NUCLEAR MAGNETIC RESONANCE STUDIES OF SOME INORGANIC MOLECULES AND IONS
Richard Edwin Poulsen
UCRL-3567, 59 pp. (1956)
51:93041

NUCLEAR RELAXATION IN ANTIFERROMAGNETIC CRYSTALS
J. van Kranendonk and M. Bloom
Physica 22, 545-60 (1956)
52:9775e

1957

NUCLEAR MAGNETIC RESONANCE IN CoF_2 AND FeF_2
J. M. Baker and W. Hayes
Phys. Rev. 106, 603-4 (1957)
51:17432d

FLUORINE-19 NUCLEAR-MAGNETIC-RESONANCE LINE SHAPES
IN CALCIUM FLUORIDE
C. R. Bruce
Phys. Rev. 107, 43-5 (1957)
52:1755e

NUCLEAR MAGNETIC RESONANCE STUDIES OF THE ALUMINUM
FLUORIDE COMPLEXES
Robert E. Connick and Richard E. Poulsen
J. Am. Chem. Soc. 79, 5153-7 (1957)
52:3512d

NUCLEAR MAGNETIC RESONANCE STUDIES OF BF_3 COMPLEX
FORMATION
P. Diehl and R. A. Ogg
Nature 180, 1114 (1957)
52:4312c

NUCLEAR MAGNETIC RESONANCE IN PARAMAGNETIC IRON
GROUP FLUORIDES
V. Jaccarino, R. G. Shulman, and J. W. Stout
Phys. Rev. 106, 602-3 (1957)
51:17432c

NUCLEAR MAGNETIC RESONANCE (n.m.r.) IN ANTIFERROMAGNETIC MnF_2^{19}
V. Jaccarino and R. G. Schulman
Phys. Rev. 107, 1196-7 (1957)
52:2549c

NUCLEAR MAGNETIC RESONANCE IN SINGLE-CRYSTAL LITHIUM FLUORIDE DOWN TO 1.5°K
Frank J. Low and C. F. Squire
Bull. Am. Phys. Soc. (2), 2, 103 (1957)
52:12546d

FREE-INDUCTION DECAYS IN SOLIDS
I. J. Lowe and R. E. Norberg
Phys. Rev. 107, 46-61 (1957)
52:1755f

LEWIS CHARACTER OF TELLURIUM HEXAFLUORIDE
E. L. Muettterties and W. D. Phillips
J. Am. Chem. Soc. 79, 2075 (1957)
51:12724h

STRUCTURE OF ClF_3 AND EXCHANGE STUDIES ON SOME HALOGEN FLUORIDES BY NUCLEAR MAGNETIC RESONANCE (n.m.r.)
E. L. Muetterties and W. D. Phillips
J. Am. Chem. Soc. 79, 322-6 (1957)
52:2528d

NUCLEAR MAGNETIC RESONANCE SPLITTINGS IN VERY WEAK FIELDS (35-15 GAUSSSES)
Dominique P. Roux and George J. Bene
J. Chem. Phys. 26, 968-9 (1957)
51:12646i

NUCLEAR MAGNETIC RESONANCE IN PARAMAGNETIC MANGANEUS FLUORIDE
R. G. Shulman and V. Jaccarino
Phys. Rev. 108, 1219-31 (1957)
52:5965a

1958

CHEMICAL SHIFT AND THE FINE STRUCTURE OF THE SIGNALS OF NUCLEAR MAGNETIC RESONANCE. I. EXPERIMENTAL METHOD AND THE INVESTIGATION OF THE SYSTEM $\text{HF}-\text{H}_2\text{O}$
P. M. Borodin and F. I. Skripov
Izvest. Vysshikh Ucheb. Zavedenii, Radiofiz., No. 3, 37-49 (1958)
53:12000b

EFFECT OF ENVIRONMENT ON THE FLUORINE MAGNETIC RESONANCE IN SOLUTIONS OF POTASSIUM FLUORIDE
Alan Carrington and Theodore Hines
J. Chem. Phys. 28, 727-8 (1958)
52:12561a

TETRAFLUOROHYDRAZINE
Charles B. Colburn and Al Kennedy
J. Am. Chem. Soc. 80, 5004 (1958)
53:6859i

ELECTROLYTE EFFECTS ON NUCLEAR MAGNETIC RESONANCE FREQUENCIES OF FLUORINE IN AQUEOUS SOLUTIONS
Robert E. Connick and Richard E. Poulsen
J. Phys. Chem. 62, 1002-4 (1958)
53:8651

NUCLEAR RESONANCE SPECTRUM AND STRUCTURE OF SULFUR TETRAFLUORIDE
F. A. Cotton, J. W. George, and J. S. Waugh
J. Chem. Phys. 28, 994-5 (1958)
52:15252c

NUCLEAR MAGNETIC RESONANCE STUDIES OF BORON TRIFLUORIDE COMPLEX FORMATION
P. Diehl
Helv. Phys. Acta 31, 685-712 (1958)
53:17673b

STUDY OF BORON TRIFLUORIDE COMPLEXES BY NUCLEAR MAGNETIC RESONANCE
P. Diehl and J. Gränacher
Helv. Phys. Acta 31, 43-4 (1958)
52:19656b

THE STRUCTURE OF LIQUID ANTIMONY PENTAFLUORIDE
Charles J. Hoffman, Bert E. Holder, and William L. Jolly
J. Phys. Chem. 62, 364-6 (1958)
52:11496b

MAGNETIC RESONANCE LINE SHAPES AT THE ONSET OF SATURATION
D. F. Holcomb
Phys. Rev. 112, 1599-1603 (1958)
53:19572i

NUCLEAR RESONANCE SIGNALS OBTAINED BY DYNAMIC POLARIZATION
Andre Landesman
Compt. rend. 246, 1538-40 (1958)
52:12560h

PROTON RESONANCE SPECTRA OF SOME CRYSTALS CONTAINING NITROGEN AND FLUORINE
J. B. Leane and R. E. Richards
Spectrochim. Acta 10, 154-60 (1958)
52:9755d

ELECTRON-NUCLEAR DOUBLE RESONANCE OF F CENTERS IN LITHIUM FLUORIDE
Norman W. Lord
Phys. Rev. Letters 1, 170-1 (1958)
52:17964h

NUCLEAR MAGNETIC RESONANCE IN LITHIUM FLUORIDE
F. J. Low and C. F. Squire
Phys. and Chem. Solids 2, 85-8 (1958)
53:8814g

CHEMISTRY OF SOME SULFUR OXYFLUORIDES
E. L. Muetterties and D. D. Coffman
J. Am. Chem. Soc. 80, 5914-18 (1958)
53:4997g

INDIRECT COUPLING OF NUCLEAR SPINS IN AN ANTI-FERROMAGNET WITH PARTICULAR REFERENCE TO MnF_2 AT VERY LOW TEMPERATURES
Tsutso Nakamura
Progr. Theoret. Phys. (Kyoto) 20, 542-52 (1958)
53:10970b

NUCLEAR MAGNETIC RESONANCE (N.M.R.) STUDIES OF COORDINATE COMPLEX FORMATION BY BORON TRIFLUORIDE
Richard A. Ogg, Jr., and Peter Diehl
Chem. Co-Ord. Compds., Symp., Rome 1957, 468-75
(Pub. 1958)
58:2041c

NUCLEAR MAGNETIC RESONANCE STUDIES OF COORDINATE COMPLEX FORMATION BY BORON TRIFLUORIDE
Richard A. Ogg, Jr., and Peter Diehl
J. Inorg. and Nuclear Chem. 8, 468-75 (1958)
53:5942f

LITHIUM-7 AND FLUORINE-19 NUCLEAR MAGNETIC RESONANCES IN NEUTRON-IRRADIATED LITHIUM FLUORIDE
P. J. Ring, J. G. O'Keefe, and P. J. Bray
Phys. Rev. Letters 1, 453-4 (1958)
53:6769e

DOUBLE NUCLEAR RESONANCE IN CRYSTALS OF LITHIUM FLUORIDE
E. E. Schneider and K. Thompson
J. Phys. Radium 19, 834-6 (1958) (in French)
53:8814e

NUCLEAR MAGNETIC RESONANCE OF FLUORINE IN FLUOROSILANES
Erhard Schnell and Eugene G. Rochow
J. Inorg. Nucl. Chem. 6, 303-7 (1958)
52:17963d

ORIGIN OF NUCLEAR MAGNETIC RESONANCE SHIFTS IN PARAMAGNETIC MANGANESE TRIFLUORIDE
R. G. Schulman and V. Jaccarino
Phys. Rev. 109, 1084-5 (1958)
52:11578a

1959

THE FORM OF RESONANCE LINES IN RIGID SYSTEMS
Anatole Abragam and Jacques Michel Winter
Compt. rend. 249, 1633-4 (1959)
54:18058g

PRINCIPLES OF PHOSPHORUS CHEMISTRY. IV. THE SYSTEM OF FLUOROPHOSPHORIC ACIDS
Donald P. Ames, Shigeru Ohashi, Clayton F. Callis, and John R. Van Wazer
J. Am. Chem. Soc. 81, 6350-7 (1959)
54:11792d

NUCLEAR MAGNETIC RESONANCE STUDY OF FLUORINE IN SILVER FLUORIDE AND SILVER SUBFLUORIDE
Q. Won Choi
Univ. Microfilms (Ann Arbor, Mich.), L.C. Card No. Mic 59-1611, 97 pp.; Dissertation Abstr. 20, 111 (1959)
53:18632a

F¹⁹ NUCLEAR MAGNETIC RESONANCE OF VARIOUS METAL-FLUORIDE COMPLEXES IN AQUEOUS SOLUTION
Robert E. Connick and Richard E. Poulsen
J. Phys. Chem. 63, 568-9 (1959)
53:15772e

STRUCTURE SENSITIVITY OF THE HIGH-FREQUENCY NUCLEAR MAGNETIC RESONANCE IN POWDERED ANTIFERROMAGNETIC MnF₂
J. L. Davis, G. E. Devlin, V. Jaccarino, and A. L. Schawlow
Phys. and Chem. Solids 10, 106-9 (1959)
54:1076g

EXCHANGE PROCESSES IN HALOGEN FLUORIDES
A. N. Hamer
J. Inorg. and Nuclear Chem. 9, 98-9 (1959)
53:8779e

STUDY OF SOME CORROSIVE FLUORIDES BY NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY
A. N. Hamer, J. Leece, and P. G. Bentley
U. K. At. Energy Authority Ind. Group IGR-TN/CA-1048, 13 pp. (1959)
53:15772f

NUCLEAR MAGNETIC RESONANCE STUDIES OF NEUTRON-IRRADIATED ALKALI HALIDES
J. F. Hon and P. J. Bray
Phys. and Chem. Solids 11, 149-69 (1959)
54:5250e

DIRECT OBSERVATION OF THE HYPERFINE STRUCTURE (hfs) OF A PARAMAGNETIC ION IN AN ANTIFERROMAGNET. NUCLEAR MAGNETIC RESONANCE OF COBALT-59 IN COBALTUS FLUORIDE
V. Jaccarino
Phys. Rev. Letters 2, 163-5 (1959)
53:8815d

EFFECTS OF THE COBALT-59 HYPERFINE STRUCTURE ON THE FLUORINE-19 HIGH-FREQUENCY NUCLEAR MAGNETIC RESONANCE IN ANTIFERROMAGNETIC CoF₂
V. Jaccarino
J. Chem. Phys. 30, 1627-8 (1959)
53:19573d

NUCLEAR MAGNETIC RESONANCE IN ANTIFERROMAGNETIC MnF₂
V. Jaccarino and L. R. Walker
J. Phys. Radium 20, 341-3 (1959)
53:21181h

DIFLUOROAMINE
Al Kennedy and Charles B. Colburn
J. Am. Chem. Soc. 81, 2906-7 (1959)
53:15844b

FREE INDUCTION DECAY OF ROTATING SOLIDS
I. J. Lowe
Phys. Rev. Letters 2, 285-7 (1959)
54:2013c

NUCLEAR MAGNETIC RESONANCE FREQUENCY SHIFT OF Co⁵⁹ IN CoF₂
Toru Moriya
Phys. Chem. Solids 11, 175-6 (1959)
54:5250f

STRUCTURE OF EXCHANGE PROCESSES IN SOME INORGANIC FLUORIDES BY NUCLEAR MAGNETIC RESONANCE
E. L. Muettterties and W. D. Phillips
J. Am. Chem. Soc. 81, 1084-8 (1959)
53:10974b

CRYSTALLINE FIELD SPLITTING IN FERROUS FLUOSILICATE
Taichiro Ohtsuka
J. Phys. Soc. Japan 14, 1245 (1959)
54:9502a

REACTION OF PEROXYDISULFURYL DIFLUORIDE WITH SULFUR DIOXIDE AND FLUORINE
John E. Roberts and George H. Cady
J. Am. Chem. Soc. 81, 4166-7 (1959)
54:3030h

STUDY ON THE HYDROGEN BOND IN NH₄HF₂ BY NUCLEAR MAGNETIC RESONANCE
Tsunahiko Shidei and Shukuro Yano
J. Chem. Phys. 30, 1109-10 (1959)
53:16701a

OBSERVATION OF THE COBALT-59 NUCLEAR MAGNETIC RESONANCE IN PARAMAGNETIC SALTS
R. G. Schulman
Phys. Rev. Letters 2, 459-60 (1959)
54:2948h

HIGHER-ORDER TRANSITIONS IN DOUBLE RESONANCE
Ko Sugihara
J. Phys. Soc. Japan 14, 1054-63 (1959)
55:17230b

CALCULATION OF THE ACID FUNCTION AND MOLECULAR COMPOSITION OF HYDROFLUORIC ACID FROM NUCLEAR MAGNETIC RESONANCE DATA FOR FLUORINE-19
E. Z. Utyanskaya, A. U. Stepanyants, M. I. Vinnik, and N. M. Chirkov
Doklady Akad. Nauk S.S.R. 124, 1095-8 (1959)
55:8018g

1960

NUCLEAR MAGNETIC RESONANCE (NMR) IN ANTIFERROMAGNETIC MnF_2 UNDER HYDROSTATIC PRESSURE
G. B. Benedek and T. Kushida
Phys. Rev. 118, 46-57 (1960)
54:23745g

FLUORINE RESONANCE SPECTRUM OF PERCHLORYL FLUORIDE
S. Brownstein
Can. J. Chem. 38, 1597-9 (1960)
55:1189d

PHOSPHONITRILIC DERIVATIVES. III. CYCLIC PHOSPHONITRILIC FLUORIDES
A. C. Chapman, N. L. Paddock, D. H. Paine, H. T. Searle, and D. R. Smith
J. Chem. Soc. 3608-14 (1960)
55:3263d

NUCLEAR MAGNETIC RESONANCE (NMR) LINE SHIFTS OF FLUORINE IN AgF AND Ag_2F
Q. Won Choi
J. Am. Chem. Soc. 82, 2686-9 (1960)
54:23743a

HFS OF F^{19} IN THE ELECTRON PARAMAGNETIC RESONANCE OF $Mn:ZnF_2$
A. M. Clogston, J. P. Gordon, V. Jaccarino, M. Peter, and L. R. Walker
Phys. Rev. 117, 1222-35 (1960)
54:23749f

TECHNIQUE FOR OBSERVATION OF THE NUCLEAR MAGNETIC RESONANCE OF SOME SHORT-LIVED NUCLIDES AND ITS APPLICATION TO THE MEASUREMENT OF THE NUCLEAR g-FACTOR OF Li^8
Donald Connor
U. S. At. Energy Comm. ANL-6263, 1-94 (1960)
55:8087c

NMR [NUCLEAR MAGNETIC RESONANCE] STUDIES ON MIXED BORON HALIDES. DETECTION OF THE NEW HALIDE $BBrClF$
T. D. Coyle and F. G. A. Stone
J. Chem. Phys. 32, 1892-3 (1960)
55:1261d

INDIRECT INTERACTIONS OF SPINS AND CROSSING OF FREQUENCIES IN HEXAFLUOROPHOSPHORIC ACID IN A WEAK FIELD
Ange Erbeia and Georges Bene
Compt. rend. 250, 3467-9 (1960)
54:22019g

CYANOGEN FLUORIDE
F. S. Fawcett and R. D. Lipscomb
J. Am. Chem. Soc. 82, 1509-10 (1960)
54:15050d

NUCLEAR MAGNETIC RESONANCE (N.M.R.) INVESTIGATION ON HYDROGEN BONDS AND IONIC REORIENTATION IN CRYSTALS. I. SALTS OF THE TYPE $(NH_4)_nBX_m$
Cafiero Franconi
Sci. Tec. 4 (4), 209-15 (1960)
61:7852c

NUCLEAR MAGNETIC RESONANCE (NMR) INVESTIGATION OF THE AsF_3-SO_3 REACTION
R. J. Gillespie and J. V. Oubridge
Proc. Chem. Soc. 308-9 (1960)
55:7128a

HYPERFINE STRUCTURE OF THE F CENTER IN LiF
W. C. Holton, H. Blum, and C. P. Slichter
Phys. Rev. Letters 5, 197-200 (1960)
55:1191a

MOLECULAR STRUCTURE OF IODINE HEPTAFLUORIDE
Robert E. LaVilla and S. H. Bauer
J. Chem. Phys. 33, 182-6 (1960)
55:56g

THE ADDITION COMPOUNDS OF CYCLIC ETHERS WITH BORON TRIFLUORIDE
Donald E. McLaughlin, Milton Tamres, and Scott Searles, Jr.
J. Am. Chem. Soc. 82, 5621-5 (1960)
55:10424e

F^{19} SPECTRA OF PHOSPHORUS(V) FLUORIDES
W. Mahler and E. L. Muettterties
J. Chem. Phys. 33, 636 (1960)
55:5128e

HIGH-RESOLUTION NUCLEAR MAGNETIC RESONANCE STUDIES OF FLUORINE COMPOUNDS
Virgil D. Mochel
Univ. Microfilms (Ann Arbor, Mich.), L. C. Card No. Mic 60-1669, 153 pp.; Dissertation Abstr. 20, 4543 (1960)
54:17058i

THEORY OF MAGNETISM OF NiF_2
Toru Moriya
Phys. Rev. 117, 635-47 (1960)
54:23750b

CHEMISTRY OF PHOSPHORUS FLUORIDES
E. L. Muettterties, T. A. Bither, M. W. Farlow, and D. D. Coffman
J. Inorg. Nucl. Chem. 16, 52-9 (1960)
55:5214e

SULFUR TETRAFLUORIDE. IV. FLUORINATION OF INORGANIC OXIDES AND SULFIDES
A. L. Oppegard, W. C. Smith, E. L. Muettterties, and V. A. Engelhardt
J. Am. Chem. Soc. 82, 3835-8 (1960)
55:197b

CHLORODIFLUOROAMINE
Robert C. Petry
J. Am. Chem. Soc. 82, 2400-1 (1960)
54:18147c

SOME REACTIONS OF FLUORINE FLUOROSULFONATES: IODINE TRIFLUORIDE BISFLUOROSULFONATE
John E. Roberts and George H. Cady
J. Am. Chem. Soc. 82, 354-5 (1960)
54:12861c

NUCLEAR MAGNETIC RESONANCE (NMR) IN $KMnF_3$
R. G. Shulman and K. Knox
Phys. Rev. 119, 94-101 (1960)
54:20491b

NUCLEAR MAGNETIC RESONANCE IN PARAMAGNETIC FeF_2
J. W. Stout
Phys. Rev. 118, 1136-41 (1960)
54:23819f

ON THE F¹⁹ NMR [NUCLEAR MAGNETIC RESONANCE] SHIFT
IN CoF₂
Soichiro Toshima and Tsuto Nakamura
Mem. Fac. Sci., Kyushu Univ. Ser. B 3, 25-30 (1960)
55:16156c

1961

ANTIFERROMAGNETISM OF MIXED CRYSTALS OF ZINC AND
MANGANESE FLUORIDE
J. M. Baker, J. A. J. Lourens, and R. W. H.
Stevenson
Proc. Phys. Soc. (London) 77, 1039-41 (1961)
55:21819f

NUCLEAR MAGNETIC INTERACTIONS IN HYDROGEN FLUORIDE
Milton R. Baker, H. Mark Nelson, John A. Leavitt,
and Norman F. Ramsey
Phys. Rev. 121, 807-15 (1961)
55:8044i

NUCLEAR MAGNETIC RESONANCE (NMR) IN (NH₄)₂(BeF₄)_x
(SO₄)_{1-x} AND OTHER FERROELECTRIC SYSTEMS
Gerald Burns
Phys. Rev. 123, 64-6 (1961)
55:19486c

THE VAPOR PRESSURES OF SOME HEAVY TRANSITION METAL
HEXAFLUORIDES
George H. Cady and George B. Hargreaves
J. Chem. Soc. 1563-74 (1961)
55:16048e

THE FLUORINE MAGNETIC RESONANCE IN THE IONS [BF₄]⁻
AND [BF₃CF₃]⁻
R. D. Chambers, H. C. Clark, L. W. Reeves, and C. J.
Wallis
Can. J. Chem. 39, 258-9 (1961)
55:13063f

PHOSPHONITRILIC DERIVATIVES. V. TRIPHOSPHONITRILIC
FLUORIDE CHLORIDES
A. C. Chapman, D. H. Paine, H. T. Searle, D. R.
Smith, and R. F. M. White
J. Chem. Soc. 1768 (1961)
57:6858f

SPIN-LATTICE RELAXATION TIME OF F¹⁹ NUCLEI IN Ag₂F
Q. Won Choi and W. Gilbert Clark
J. Chem. Phys. 34, 1584 (1961)
55:26678e

NATURE OF THE BOND BETWEEN BF₃ AND LACTAMS
E. F. J. Duynstee, W. van Raayen, J. Smidt, and
Th. A. Veerkamp
Rec. Trav. Chim. 80, 1323-33 (1961)
57:11013b

THE STRUCTURE OF THE ISOMERS OF N₂F₂
Raymond Ettinger, Frederic A. Johnson, and Charles
B. Colburn
J. Chem. Phys. 34, 2187-8 (1961)
55:24223c

ORIGIN OF THE F¹⁹ HYPERFINE STRUCTURE IN TRANSITION
ELEMENT FLUORIDES
A. J. Freeman and R. E. Watson
Phys. Rev. Letters 6, 343-4 (1961)
56:1081f

F¹⁹ NUCLEAR MAGNETIC RESONANCE IN POLYCRYSTALLINE
MgF₂
S. K. Ghosh, J. Lahiri, and S. K. Sinha
Indian J. Phys. 35, 236-9 (1961)
55:23055f

POLYSULFURYL FLUORIDES
R. J. Gillespie, J. V. Oubridge, and E. A. Robinson
Proc. Chem. Soc. 428-9 (1961)
56:9688h

NUCLEAR MAGNETIC RESONANCE SATURATION IN NaCl AND
CaF₂
Walter I. Goldburg
Phys. Rev. 122, 831-6 (1961)
55:23057b

HIGH-RESOLUTION NUCLEAR MAGNETIC RESONANCE [NMR]
SPECTRA OF PENTAFLUOROSULFUR COMPOUNDS
R. K. Harris and K. J. Packer
J. Chem. Soc. 4736-40 (1961)
56:5555g

COORDINATION COMPOUNDS HAVING CARBOXYLIC ESTERS AS
LIGANDS. I. STOICHIOMETRY, STRUCTURE, AND STEREO-
CHEMISTRY
M. F. Lappert
J. Chem. Soc. 817-22 (1961)
55:16250i

BIS(PENTAFLUOROSULFUR) PEROXIDE
Claude I. Merrill and George H. Cady
J. Am. Chem. Soc. 83, 298-300 (1961)
55:15204f

HIGH-RESOLUTION-NUCLEAR MAGNETIC RESONANCE (N.M.R.)
SPECTRA OF THE PENTAFLUOROSULFUR GROUP
C. I. Merrill, S. M. Williamson, G. H. Cady, and
D. F. Eggers, Jr.
U. S. Dept. Com., Office Tech. Serv., AD 264, 827,
14 pp (1961)
58:1072e

NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTRA OF SOME
HYPOFLUORITES
Claude I. Merrill and George H. Cady
U. S. Dept. Com., Office Tech. Serv., AD 264-827,
6 pp (1961)
58:2046b

MAGNETIC RESONANCE OF F¹⁹ NUCLEI IN FERROELECTRIC
(NH₄)₂-BeF₄
G. M. Mikhailov, A. G. Lundin, and S. P. Gabuda
Zhur. Eksppl. i Teoret. Fiz. 41, 1370-4 (1961)
56:11096d

NUCLEAR INTERACTIONS IN DEUTERIUM FLUORIDE
H. Mark Nelson, John A. Leavitt, Milton R. Baker,
and Norman F. Ramsey
Phys. Rev. 122, 856-9 (1961)
55:21807b

ABSENCE OF ANTIFERROMAGNETIC DOMAIN WALLS IN MnF₂
P. S. Pershan
Phys. Rev. Letters 7, 280-1 (1961)
56:6778g

ELECTRICALLY INDUCED SHIFT OF THE F¹⁹ RESONANCE
FREQUENCY IN MnF₂
P. S. Pershan and N. Bloembergen
Phys. Rev. Letters 7, 165-7 (1961)
56:4276a

SULFUR-NITROGEN-FLUORINE COMPOUNDS. XI. STRUCTURE
OF SOME SULFUR-NITROGEN-FLUORINE COMPOUNDS

Hans Richert and Oskar Glemsen
Z. anorg. u. allgem. Chem. 307, 328-44 (1961)
55:24345e

CALCULATION OF CRYSTAL FIELD SPLITTING

R. G. Shulman and S. Sugano
Phys. Rev. Letters 7, 157-9 (1961)
56:6751a

NUCLEAR MAGNETIC RESONANCE IN $\text{CuF}_2 \cdot 2\text{H}_2\text{O}$ SINGLE
CRYSTALS

R. G. Shulman and B. J. Wyluda
J. Chem. Phys. 35, 1498-9 (1961)
56:6812e

NUCLEAR MAGNETIC RESONANCE IN NiF_2 DOMAIN WALLS

R. G. Shulman
J. Appl. Phys. 32, Suppl. No. 3, 126-8 (1961)
55:23056c

NUCLEAR MAGNETIC RESONANCE (NMR) AND MAGNETIC OR-
DERING IN NiF_2

R. G. Shulman
Phys. Rev. 121, 125-43 (1961)
55:7048g

DOUBLE NUCLEAR MAGNETIC RESONANCE AND SPIN DIFFU-
SION IN LITHIUM FLUORIDE

George Henry Strauss
Univ. Microfilms (Ann Arbor, Mich.), Order No.
61-4162, 94 pp.; Dissertation Abstr. 22, 1684-5
(1961)
56:5555e

NUCLEAR MAGNETIC RESONANCE [NMR] IN $\text{NiSiF}_6 \cdot 6\text{H}_2\text{O}$
BELOW 1°K

Tadashi Sugawara
Proc. Intern. Conf. Low Temp. Phys., 7th, Toronto,
Can. 1960, 108-10 (Pub. 1961)
56:8197c

FLUORINE NUCLEAR SPIN RESONANCE (NMR) SPECTROSCOPY.
IV. SILICON-29 ISOTOPE EFFECT

G. V. Tiers
J. Inorg. Nucl. Chem. 16, 363-5 (1961)
55:15127d

THE DEPENDENCE OF THE MAGNETIC SCREENING OF F^{19}
NUCLEI ON CONCENTRATION IN THE $\text{KHF}_2 \cdot \text{H}_2\text{O}$ AND $\text{KHF}_2 \cdot$
 $\text{KF} \cdot \text{H}_2\text{O}$ SYSTEMS

I-Ts'iu Vang and F. I. Skripov
Doklady Akad. Nauk S.S.R. 136, 58-60 (1961)
56:2095c

CHEMICAL DISPLACEMENTS OF THE FLUORINE NUCLEAR MAG-
NETIC RESONANCE SIGNALS IN IONIC CRYSTALS

I-Ch'iu Wang
Doklady Akad. Nauk S.S.R. 136, 317-19 (1961)
56:2095e

CHEMICAL SHIFT OF THE NUCLEAR MAGNETIC RESONANCE
SPECTRUM OF F^{19} IN AQUEOUS SOLUTIONS CONTAINING F^- ,
 HF_2^- , AND NH_4^+

I'Ch'iu Wang
Zhur. Strukt. Khim. 2, 367-8 (1961)
56:6812f

1962

FLUORINE PERCHLORATE, INFRARED AND NUCLEAR MAGNETIC
RESONANCE [NMR] SPECTRA

H. Agahigian, A. P. Gray, and C. D. Vickers
Can. J. Chem. 40, 157 (1962)
56:8196f

NEEL TEMPERATURE OF MIXED CRYSTALS OF ZINC AND
IRON GROUP FLUORIDES

J. M. Baker, J. A. J. Lourens, and R. W. H.
Stevenson
J. Phys. Soc. Japan 17, Suppl. B-I, 478-80 (1962)
58:2046c

PROTON MAGNETIC RESONANCE (N.M.R.) STUDY OF THE
WATER LATTICE DISTORTIONS IN AQUEOUS ALKALI HALIDE
SOLUTIONS

M. S. Bergqvist and E. Forslind
Acta. Chem. Scand. 16, 2069-86 (1962)
58:7529f

THE NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTRA OF
SOME HYPOFLUORITES

George H. Cady and Claude I. Merrill
J. Am. Chem. Soc. 84, 2260-2 (1962)
57:6772e

HYDROGEN FLUORIDE SOLVENT SYSTEM. XI. IRON PENTA-
CARBONYLHYDROGEN FLUORIDE SYSTEM AND NUCLEAR MAG-
NETIC RESONANCE STUDIES OF TRANSITION METAL CARBON-
YLS

A. F. Clifford and M. D. Campbell
U. S. At. Energy Comm. TID-18199, 19 pp (1962)
60:15321f

NITROSODIFLUORAMINE

Charles B. Colburn and Frederick A. Johnson
Inorg. Chem. 1, 715-17 (1962)
57:9443i

INFRARED AND NUCLEAR MAGNETIC RESONANCE (N.M.R.)
SPECTRA OF A CYCLIC PERFLUOROAZO COMPOUND

E. A. V. Ebsworth and G. L. Hurst
J. Chem. Soc. 4840-3 (1962)
58:3027g

X-RAY EVIDENCE FOR CRYSTALLINE DEFECTS

A. Guinier
Proc. Intern. School Phys. "Enrico Fermi" (Varenna,
Italy) 18, 122-51 (1960) (Pub. 1962) (In French)
65:6405a

HIGH-RESOLUTION NUCLEAR MAGNETIC RESONANCE (N.M.R.)
SPECTROSCOPY OF PENTAFLUOROSULFUR COMPOUNDS. II.
COMPLEX NUCLEAR MAGNETIC SYSTEMS

R. K. Harris and K. J. Packer
J. Chem. Soc. 3077-82 (1962)
57:11995c

NUCLEAR MAGNETIC RESONANCE IN MnF_2 NEAR THE CRITICAL
POINT

P. Heller
Phys. Rev. Letters 8, 428-32 (1962)
57:9376h

F^{19} CHEMICAL SHIFT OF NITROSYL FLUORIDE

John R. Holmes, Burch B. Steward, and James S.
MacKenzie
J. Chem. Phys. 37, 2728-9 (1962)
58:8540b

FLUORINE MAGNETIC RESONANCE IN XENON TETRAFLUORIDE
S. Maricic and Z. Vekslis
Croat. Chem. Acta 34, 189-90 (1962)
58:5175c

HIGH-RESOLUTION NUCLEAR MAGNETIC RESONANCE SPECTRA
OF THE PENTAFLUOROSULFUR GROUP
C. I. Merrill, S. M. Williamson, G. H. Cady, and
D. F. Eggers, Jr.
Inorg. Chem. 1, 215-19 (1962)
57:2999c

N.M.R. (NUCLEAR MAGNETIC RESONANCE) STUDY OF THE
DYNAMIC STRUCTURE OF THE ALKALI HEXAFLUOROPHOS-
PHATES
Gerald Ray Miller
Univ. Microfilms (Ann Arbor, Mich.), Order No.
62-2940, 79 pp.; Dissertation Abstr. 23, 462 (1962)
58:6355d

ANALYSIS OF THE N.M.R. (NUCLEAR MAGNETIC RESONANCE)
AND DOUBLE-RESONANCE SPECTRA OF THE ISOMERS OF N_2F_2
Joseph H. Noggle, John D. Baldeschiwiler, and
Charles B. Colburn
J. Chem. Phys. 37, 182-9 (1962)
57:1460e

STABLE CARBONIUM IONS. II. OXOCARBONIUM (ACYLIUM)
TETRAFLUOROBORATES, HEXAFLUOROPHOSPHATES, HEXA-
FLUOROANTIMONATES, AND HEXAFLUOROARSENATES. STRUC-
TURE AND CHEMICAL REACTIVITY OF ACYL FLUORIDE:
LEWIS ACID FLUORIDE COMPLEXES
George A. Olah, Stephen J. Kuhn, William S. Tolgyesi,
and Edward B. Baker
J. Am. Chem. Soc. 84, 2733-40 (1962)
57:9447h

F^{19} FREE INDUCTION DECAY IN POLYCRYSTALLINE MgF_2
S. K. Sinha, S. K. Ghosh, J. Lahiri, and A.
Roychoudhury
Indian J. Phys. 36, 513-20 (1962)
59:150g

RELAXATION OF F^{19} IN PARAMAGNETIC SOLUTIONS
V. M. Vdovenko, L. L. Pavlova, and V. A. Shcherbakov
Zh. Strukt. Khim. 3, 707-9 (1962)
58:7528e

F^{19} MAGNETIC SHIELDING IN ALKALI FLUORIDE CRYSTALS
I-Ch'iu Wang and M. Volodicheva
Fiz. Tverd. Tela 4, 642-5 (1962)
57:4169i

1963

NUCLEAR MAGNETIC RESONANCE SPECTRA OF IF_7 AND IOF_5
L. G. Alexakos, C. D. Cornwell, and S. B. Pierce
Proc. Chem. Soc. 341-2 (Nov. 1963)
60:4977b

NUCLEAR MAGNETIC RESONANCE STUDIES ON SEVERAL
HALOGEN FLUORIDES
Louis George Alexakos
Univ. Microfilms (Ann Arbor, Mich.), Order No. 63-
5731, 13 pp.; Dissertation Abstr. 24, 89-90 (1963)
59:14779d

THE NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTRUM OF
SULFUR TETRAFLUORIDE
J. Bacon, R. J. Gillespie, and J. W. Quail
Can. J. Chem. 41, 1016-18 (1963)
59:5961d

QUADRUPOLE RELAXATION FOR A SPIN $I = 3/2$. THE
 ^{19}F N.M.R. (NUCLEAR MAGNETIC RESONANCE) SPECTRA OF
 BF_3 AND ClO_3F
J. Bacon, R. J. Gillespie, and J. W. Quail
Can. J. Chem. 41 (12), 3063-9 (1963)
60:1251f

MAGNETIC RESONANCE AT VERY LOW FREQUENCIES: APPLI-
CATIONS TO PHYSICAL CHEMISTRY AND STRUCTURAL CHEM-
ISTRY
G. J. Bene
Chim. Anal. (Paris) 45, 162-71 (1963)
59:2307e

NUCLEAR MAGNETIC RESONANCE (N.M.R.) STUDIES OF THE
PROTONATION OF WEAK BASES IN FLUOROSULFURIC ACID.
II. AMIDES, THIOAMIDES, AND SULFONAMIDES
T. Birchall and R. J. Gillespie
Can. J. Chem. 41 (10), 2642-50 (1963)
59:12327d

ANISOTROPY OF FLUORINE CHEMICAL SHIFT IN SOLID
XENON TETRAFLUORIDE
R. Blinc, P. Podnar, J. Slivnik, B. Volavsek, S.
Maricic, and Z. Vekslis
Noble-Gas Compds. 270-4 (1963)
65:13043h

ANISOTROPY OF THE F CHEMICAL SHIFT TENSOR IN XeF_4
R. Blinc, I. Zupancic, S. Maricic, and Z. Vekslis
J. Chem. Phys. 39 (8), 2109-10 (1963)
59:14715d

F^{19} MAGNETIC RESONANCE STUDY IN XENON TETRAFLUORIDE
R. Blinc, P. Podnar, J. Slivnik, and B. Volavsek
Phys. Letters 4, 124 (1963)
58:12099a

NUCLEAR MAGNETIC RESONANCE IN POLYCRYSTALLINE UF_6
R. Blinc, V. Marinkovic, E. Pirkmajer, I. Zupancic,
and S. Maricic
J. Chem. Phys. 38, 2474-7 (1963)
58:13327a

ACTION OF HEAVY WATER ON THE CHEMICAL SHIFT FOR F^{19}
P. M. Borodin, E. K. Legin, E. N. Sventitskii, M.
B. Khusidman, and V. A. Shcherbakov
Zh. Strukt. Khim. 4 (2), 266-7 (1963)
59:3447d

HIGH-RESOLUTION F^{19} AND Xe^{129} MAGNETIC DOUBLE RESO-
NANCE SPECTRUM OF $XeOF_4$
Thomas H. Brown, E. B. Whipple, and Peter H. Verdier
J. Chem. Phys. 38, 3029-30 (1963)
59:8321f

HIGH-RESOLUTION MAGNETIC RESONANCE OF Xe COMPOUNDS
Thomas H. Brown, E. B. Whipple, and Peter H. Verdier
Noble-Gas Compds. 263-69 (1963)
65:6544d

XENON TETRAFLUORIDE: FLUORINE-19 HIGH-RESOLUTION MAGNETIC RESONANCE SPECTRUM
Thomas H. Brown, E. B. Whipple, and Peter H. Verdier
Science 140 (3563), 178 (1963)
59:2306c

FORMATION AND EXCHANGE RATES OF SOME COMPLEXES OF BORON FLUORIDE WITH AMINES AND ETHERS
S. Brownstein, A. M. Eastham, and G. A. Latremouille
J. Phys. Chem. 67, 1028-31 (1963)
58:13179c

THE NUCLEAR MAGNETIC RESONANCE AND THE ELECTRON PARAMAGNETIC RESONANCE OF LiF DOPED WITH MnF₂
Te-Tse Chang
Univ. Microfilms (Ann Arbor, Mich.), Order No. 63-1983, 69 pp.; Dissertation Abstr. 23, 2958 (1963)
58:13522h

HYDROGEN AND FLUORINE NUCLEAR MAGNETIC RESONANCE IN SOME ADDUCTS OF BORON TRIFLUORIDE
R. A. Craig and R. E. Richards
Trans. Faraday Soc. 59 (489), Pt. 9, 1962-71 (1963)
59:14770h

STUDY OF THE TEMPERATURE DEPENDENCE OF RELAXATION OF THE ¹⁹F NUCLEUS IN A SYNTHETIC CaF₂ SINGLE CRYSTAL
R. A. Dautov, V. D. Korepanov, and A. I. Chernitsyn
Itog. Nauchn. Konf. Kazansk. Univ. za 1962g.
(Kazan: Kazansk. Univ.) Sb., 14-15 (Pub. 1963)
(In Russian)
63:10781d

NEW FLUORINE COMPOUNDS OF XENON
A. J. Edwards, J. H. Holloway, and R. D. Peacock
Proc. Chem. Soc. 275-6 (Sept. 1963)
60:7667g

FURTHER NUCLEAR MAGNETIC RESONANCE (N.M.R.) AND ELECTRON PARAMAGNETIC RESONANCE (E.P.R.) STUDIES ON THE SYSTEM N₂F₄ = 2NF₂
Raymond Ettinger and Charles B. Colburn
Inorg. Chem. 2 (6), 1311-13 (1963)
60:6367f

IODINE OXIDE PENTAFLUORIDE
R. J. Gillespie and J. W. Quail
Proc. Chem. Soc. 278 (Sept. 1963)
60:7667e

SULFUR AND SILICON ISOTOPE EFFECTS IN FLUORINE NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTROSCOPY
R. J. Gilliespie and J. W. Quail
J. Chem. Phys. 39 (10), 2555-7 (1963)
59:13509f

PROPERTIES AND LATTICE IMPERFECTIONS OF ICE CRYSTALS AND THE BEHAVIOR OF H₂O-HF SOLID SOLUTIONS
H. Graenicher
Physik Kondensierten Materie 1 (1), 1-12 (1963)
59:8141g

NUCLEAR MAGNETIC RESONANCE (N.M.R.) INVESTIGATIONS INTO HYDROGEN BONDS AND IONIC REORIENTATIONS IN THE CRYSTALS. II. AMMONIUM FLUORALUMINATES
Marcella Guido and Cafiero Franconi
Ann. Chim. (Rome) 53, 1048-53 (1963)
60:8801b

NUCLEAR MAGNETIC RELAXATION AND DIFFUSION IN LIQUID SF₆
William R. Hackleman and Paul S. Hubbard
J. Chem. Phys. 39 (10), 2688-93 (1963)
59:13508f

FLUORINE NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTROSCOPY. STUDIES OF Cl³ SATELLITE SPECTRA
Robin K. Harris
J. Mol. Spectry. 10, 309-19 (1963)
59:3445h

A MOLECULAR-BEAM ELECTRIC-RESONANCE SPECTROMETER AND THE RADIO-FREQUENCY SPECTRA OF LITHIUM FLUORIDE
Alvin Joseph Hebert
Univ. Microfilms (Ann Arbor, Mich.), Order No. 63-5512, 87 pp.; Dissertation Abstr. 24, 1848-9 (1963)
58:13522h

60:11509g

MAGNETIC RESONANCE DETERMINATION OF THE SUSCEPTIBILITY IN ANTIFERROMAGNETIC MnF₂
P. Heller and G. B. Benedek
Proc. Intern. Conf., 1st, Jerusalem, 1962 2, 597-601 (Pub. 1963)
60:4939b

NUCLEAR MAGNETIC RESONANCE STUDIES OF Xe FLUORIDES
J. C. Hindman and A. Svirmickas
Noble-Gas Compds. 251-62 (1963)
65:6546b

PENTACOORDINATED MOLECULES. I. THE PREPARATION AND FLUORINE-19 NUCLEAR MAGNETIC RESONANCE (n.m.r.) INVESTIGATION OF THE PHOSPHORUS CHLOROFUORIDES
Robert R. Holmes and W. Patrick Gallagher
Inorg. Chem. 2, 433-7 (1963)
59:210d

SPECULATION CONCERNING THE NATURE OF BINDING IN XENON FLUORINE COMPOUNDS
Joshua Jortner, Stuart A. Rice, and E. Guy Wilson
J. Chem. Phys. 38, 2302-3 (1963)
59:5784a

SPIN ECHO IN A LOCALIZED FIELD
V. D. Korepanov, A. I. Chernitsyn, and R. A. Dautov
Zh. Eksperim. i Teor. Fiz. 45 (2), 385-6 (1963)
60:6368f

NUCLEAR MAGNETIC RESONANCE STUDIES OF NEUTRON-IRRADIATED FLUORIDES, ESPECIALLY LITHIUM FLUORIDE
Charles Dwaine Knutson
Univ. Microfilms (Ann Arbor, Mich.), Order No. 63-1038, 178 pp.; Dissertation Abstr. 23, 2570 (1963)
58:9774d

CHEMICAL SHIFTS IN XENON FLUORIDES
D. Lazdins, C. W. Kern, and M. Karplus
J. Chem. Phys. 39 (6), 1611-12 (1963)
60:12481

MAGNETIC MEASUREMENTS ON XeF₄
S. Maricic, Z. Vekseli, J. Slivnik, and B. Volavsek
Croat. Chem. Acta 35, 77-80 (1963)
59:4706f

NUCLEAR MAGNETIC RESONANCE STUDIES IN THE SERIES
 $ZrF_4 \cdot xHF \cdot H_2O$. I. THE CONSTITUTION OF THE HYDRATES
OF ZIRCONIUM TETRAFLUORIDE
S. Maricic, P. Strohal, and Z. Veksli
J. Inorg. Nucl. Chem. 25 (7), 789-94 (1963)
59:2365e

N.M.R. (NUCLEAR MAGNETIC RESONANCE) STUDY OF THE
ALKALI HEXAFLUOROPHOSPHATES' DYNAMIC STRUCTURE
Gerald R. Miller and H. S. Gutowsky
J. Chem. Phys. 39 (8), 1983-94 (1963)
59:13508b

CARBON-13 SPLITTINGS IN FLUORINE NUCLEAR MAGNETIC
RESONANCE SPECTRA
Norbert Muller and Duane T. Carr
J. Phys. Chem. 67, 112-15 (1963)
58:3025f

MEDIUM EFFECTS IN N.M.R. (NUCLEAR MAGNETIC RESO-
NANCE). III. FLUORINE RESONANCE IN GASES
L. Petrakis and H. J. Bernstein
J. Chem. Phys. 38, 1562-8 (1963)
58:10893a

NUCLEAR MAGNETIC RESONANCE AND INFRARED STUDIES OF
SOME FLUOROCARBON-TRANSITION METAL COMPOUNDS. I.
II.
Emily Pitcher
Univ. Microfilms (Ann Arbor, Mich.), Order No. 62-
5432, 158 pp.; Dissertation Abstr. 23, 2317-18
(1963)
58:10890b

FLUORINE-19 NUCLEAR MAGNETIC RESONANCE STUDY OF
SOME PENTAFLUOROTITANATE COMPLEXES
Ronald O. Ragsdale and Burch B. Steward
Inorg. Chem. 2 (5), 1002-4 (1963)
59:9483d

NUCLEAR MAGNETIC RESONANCE AND ITS APPLICATIONS TO
INORGANIC CHEMISTRY
Claude Rocchiccioli
Chim. Anal. (Paris) 45, 251-8 (1963)
59:2307f

XENON FLUORIDES: FLUORINE-19 NUCLEAR MAGNETIC
RESONANCE SPECTRA
A. C. Rutenberg
Science 140 (3570), 993-4 (1963)
59:9961e

COVALENCY EFFECTS IN $KNiF_3$. I. NUCLEAR MAGNETIC
RESONANCE STUDIES
R. G. Shulman and S. Sugano
Phys. Rev. 130, 506-11 (1963)
58:13153b

DICHLOROFLUORAMINE
Bernard Sukornick, Richard F. Stahl, and Joseph
Gordon
Inorg. Chem. 2 (4), 875 (1963)
59:12391e

NUCLEAR MAGNETIC RESONANCE OF F^{20} BY POLARIZED
NEUTRON CAPTURE AND β -DECAY ANISOTROPY
Tung Tsang and Donald Connor
Phys. Rev. 132 (3), 1141-6 (1963)
59:13507g

DIFFUSION NARROWING OF NUCLEAR MAGNETIC RESONANCE
(N.M.R.) LINE WIDTH OF F^{19} IN $CaF_2:Sm^{2+}$
Wm. J. Veigle and A. W. Bevan, Jr.
Phys. Rev. 131 (4), 1585-6 (1963)
59:7096d

1964

RELAXATION OF THE ^{19}F NUCLEI IN CaF_2
A. G. Akhmedov
Sb. Aspirantskikh Rabot, Kazansk. Gos. Univ. 155-9
(1964) (In Russian)
63:10880g

NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTRA OF ClF_2
AND ClF : GASEOUS SPECTRA AND GAS-TO-LIQUID SHIFTS
Louis G. Alexakos and C. D. Cornwell
J. Chem. Phys. 41 (7), 2098-107 (1964)
61:12817a

NUCLEAR MAGNETIC ANTISHIELDING OF NUCLEI IN MOLE-
CULES. MAGNETIC MOMENTS OF ^{19}F , ^{14}N , AND ^{15}N
Milton R. Baker, Charles H. Anderson, and Norman
F. Ramsey
Phys. Rev. 133 (6A), 1533-6 (1964)
60:8802c

^{19}F NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTRA OF
HEPTAVALENT FLUORIDES AND OXIDE PENTAFLUORIDES
N. Bartlett, S. Beaton, L. W. Reeves, and E. J.
Wells
Can. J. Chem. 42 (11), 2531-40 (1964)
61:14061h

NUCLEAR MAGNETIC RESONANCE OF FLUORINE
C. Beguin
Bull. Soc. Chim. France (10), 2711 (1964) (In
French)
62:6033b

SELENIUM ISOTOPE EFFECTS IN FLUORINE NUCLEAR MAG-
NETIC RESONANCE SPECTROSCOPY
T. Birchall, S. L. Crossley, and R. J. Gillespie
J. Chem. Phys. 41 (9), 2760-1 (1964)
61:14062g

ANOMALIES IN THE NUCLEAR MAGNETIC RESONANCE (N.M.R.)
AND ELECTRON PARAMAGNETIC RESONANCE (E.P.R.) SPEC-
TRA OF KxF_6/HF MIXTURES
Thomas H. Brown, Paul H. Kasai, Peter H. Verdier,
and E. B. Whipple
J. Chem. Phys. 40 (11), 3448-9 (1964)
61:11501h

$KrF_4:^{19}F$ HIGH-RESOLUTION MAGNETIC RESONANCE SPEC-
TRUM
Thomas H. Brown and Peter H. Verdier
J. Chem. Phys. 40 (7), 2057 (1964)
60:15319a

ADDITIVE RELATION FOR CHEMICAL SHIFTS IN NUCLEAR
MAGNETIC RESONANCE (N.M.R.) OF ^{19}F IN PHOSPHORO-
FLUORIDATES AND PHOSPHONOFLUORIDATES
V. F. Bystrov, A. A. Neimysheva, A. U. Stepanyants,
and I. L. Knunyants
Dokl. Akad. Nauk SSSR 156 (3), 637-40 (1964)
61:6548c

NUCLEAR MAGNETIC-DIPOLE COUPLING IN SOLID BF_3
P. A. Casabella
J. Chem. Phys. 41 (12), 3793-8 (1964)
62:2383f

ISOLATION AND STORAGE OF FREE RADICALS ON MOLECULAR SIEVES. II. THE ELECTRON PARAMAGNETIC RESONANCE SPECTRUM OF NITROGEN DIFLUORIDE (NF_2)
Charles B. Colburn, Raymond Ettinger, and Frederick A. Johnson
Inorg. Chem. 3 (3), 455-7 (1964)
60:1403d

PREPARATION AND PROPERTIES OF DIFLUOROBORANE
T. D. Coyle, J. J. Ritter, and T. C. Farrar
Proc. Chem. Soc. 25 (Jan. 1964)
60:8880a

FLUORINE NUCLEAR MAGNETIC RESONANCE SPECTRA OF HYDROXYFLUOROSTANNATES
P. A. W. Dean and D. F. Evans
Proc. Chem. Soc. 407 (Dec. 1964)
62:8542g

ULTRASONICALLY-INDUCED NUCLEAR SPIN TRANSITIONS IN ANTIFERROMAGNETIC KMnF_3
A. B. Denison, L. W. James, J. D. Currin, W. H. Tanttila, and R. J. Mahler
Phys. Rev. Letters 12 (10), 244-5 (1964)
60:11540h

STUDY OF MOVEMENT OF IONS IN FLUOROSILICATES BY NUCLEAR MAGNETIC RESONANCE
Jean Marie Dereppe, Pedro W. Lobo, and Maurice van Meerssche
J. Chim. Phys. 61 (7-8), 1076-81 (1964) (In French)
62:3550c

^{19}F NUCLEAR MAGNETIC RESONANCE IN SOME PARAMAGNETIC FLUORIDES
D. Elwell
Proc. Phys. Soc. (London) 84 (539), 409-15 (1964)
61:9073e

PROTON AND FLUORINE NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTRA OF HBF_4^2
T. C. Farrar and T. D. Coyle
J. Chem. Phys. 41 (9), 2612-13 (1964)
61:16063f

CYANOGEN FLUORIDE: SYNTHESIS AND PROPERTIES
F. S. Fawcett and R. D. Lipscomb
J. Am. Chem. Soc. 86 (13), 2576-9 (1964)
61:3903a

NUCLEAR MAGNETIC RESONANCE (N.M.R.) SPECTRUM OF THE FLUOROBERYLLATE ION
P. E. Francis and I. J. Lawrenson
J. Inorg. Nucl. Chem. 26 (8), 1462-3 (1964)
61:12813h

REACTION OF OXYGEN DIFLUORIDE WITH SULFUR DIOXIDE, SULFUR TRIOXIDE, AND PEROXYDISULFURYL DIFLUORIDE
Gerhard Franz and Franz Neumayr
Inorg. Chem. 3 (6), 921-2 (1964)
61:3843e

NUCLEAR MAGNETIC RESONANCE OF ^{19}F IN TETRAFLUORIDES OF URANIUM AND THORIUM
S. P. Gabuda, Yu. V. Gagarinskii, A. G. Lundin, and G. M. Mikhailov
Zh. Strukt. Khim. 5 (5), 789-91 (1964) (In Russian)
62:2380d

NUCLEAR MAGNETIC RESONANCE OF ^{19}F IN TETRAFLUORIDES OF URANIUM AND THORIUM
S. P. Gabuda, Yu. V. Gagarinskii, A. G. Lundin, and G. M. Mikhailov
Zh. Strukt. Khim. 5 (5), 789-91 (1964) (In Russian)
CORRECTION OF CA 62:2380d
64:12066e

PROTON MAGNETIC RESONANCE IN HYDRATED CRYSTALS OF URANIUM TETRAFLUORIDE
Yu. V. Gagarinskii, S. P. Gabuda, and G. M. Mikhailov
Zh. Strukt. Khim. 5 (3), 383-6 (1964) (In Russian)
62:3551f

ELECTRON PARAMAGNETIC RESONANCE [E.P.R.] AND NUCLEAR SPIN ECHO IN SOLUTIONS OF OXYFLUORIDES OF PENTAVALENT MOLYBDENUM
N. S. Garif'yanov, V. N. Fedotov, and N. S. Kucheryavenko
Izv. Akad. Nauk. SSSR, Ser. Khim. (4), 743-5 (1964)
61:3837e

ANTIMONY TETRAFLUORIDE MONOFLUOROSULFATE: PREPARATION, PROPERTIES, AND STRUCTURE
R. J. Gillespie and R. A. Rothenbury
Can. J. Chem. 42 (2), 416-20 (1964)
60:6461d

THE ^{19}F N.M.R. SPECTRUM OF IF_7
R. J. Gillespie and J. W. Quail
Can. J. Chem. 42 (12), 2671-3 (1964)
62:3554a

INFRARED AND RAMAN SPECTRA OF CYANURIC FLUORIDE
James E. Griffiths and Donald E. Irish
Can. J. Chem. 42 (3), 690-5 (1964)
60:8785c

^{55}Mn NUCLEAR MAGNETIC RESONANCE IN ANTIFERROMAGNETIC RbMnF_3
A. J. Heeger and D. T. Teaney
J. Appl. Phys. 35 (3), Pt. 2, 846-7 (1964)
60:8803b

HYPERFINE INTERACTIONS IN KCoF_3
Kazuyoshi Hirakawa
J. Phys. Soc. Japan 19 (9), 1678-85 (1964)
61:12816f

PENTACOORDINATED MOLECULES. IV. MOLECULAR STRUCTURES OF PCl_4F , PCl_3F_2 , AND PCl_2F_3 : PURE CHLORINE NUCLEAR QUADRUPOLE RESONANCE AND LOW-TEMPERATURE ^{19}F NUCLEAR MAGNETIC RESONANCE SPECTRA
Robert R. Holmes, Richard P. Carter, Jr., and George E. Peterson
Inorg. Chem. 3 (12), 1748-54 (1964)
62:2386b

CALCULATION OF CHEMICAL SHIFTS. II. THE XENON FLUORIDES
Cynthia Juan Jameson and H. S. Gutowsky
J. Chem. Phys. 40 (8), 2285-93 (1964)
60:12796c

THEORETICAL CALCULATIONS OF CHEMICAL SHIFTS IN NUCLEAR MAGNETIC RESONANCE: APPLICATION TO THE XENON FLUORIDES
Cynthia J. Jameson
Univ. Microfilms (Ann Arbor, Mich.), Order No. 64-6088, 74 pp.; Dissertation Abstr. 25 (1), 129 (1964)
61:15551g

ZERO-FIELD MANGANESE NUCLEAR MAGNETIC RESONANCE (N.M.R.) IN ANTIFERROMAGNETIC MANGANESE FLUORIDE
E. D. Jones and K. B. Jefferts
Phys. Rev. 135 (5A), 1277-80 (1964)
61:9072b

INFLUENCE OF DISLOCATIONS ON THE INTENSITY OF NUCLEAR MAGNETIC RESONANCE SIGNALS
O. Kanert
Phys. Status Solidi 7 (3), 791-803 (1964) (In German)
62:11315a

SHIELDING ANISOTROPIES IN XENON FLUORIDES
M. Karplus, C. W. Kern, and D. Lezdins
J. Chem. Phys. 40 (12), 3758-9 (1964)
61:6553e

EXPERIMENTAL STUDY OF THE RATE OF NUCLEAR SPIN RELAXATION IN ELECTROLYTE SOLUTIONS
N. S. Kucheryavenko
Zh. Strukt. Khim. 5 (1), 17-22 (1964)
61:3834h

SPIN-SPIN COUPLING IN THE TETRAFLUOROBORATE ION
Kark Kuhlmann and David M. Grant
J. Phys. Chem. 68 (11), 3208-13 (1964)
62:149c

NUCLEAR MAGNETIC RESONANCE IN NICKEL FLUOSILICATE BETWEEN 0.15°K AND 4.2°K
Kiyoshi Kume and Tadashi Sugawara
J. Phys. Soc. Japan 19 (5), 688-94 (1964)
61:1410e

NUCLEAR MAGNETIC RESONANCE (N.M.R.) LINE SHAPE OF FLUORINE IN APATITE
W. van der Lught and W. J. Caspers
Physica 30 (8), 1658-66 (1964)
61:10208e

SYNTHESIS AND CHARACTERIZATION OF FLUORIMIDODISULFURYL FLUORIDE, $(\text{FSO}_2)_2\text{NF}$, AND DIFLUORAMIDOSULFURYL FLUORIDE, FSO_2NF_2
Max Lustig, Carl L. Bumgardner, Frederic A. Johnson, and John K. Ruff
Inorg. Chem. 3 (8), 1165-8 (1964)
61:6617h

THE RELATIVE ACCEPTOR POWER OF BORON TRIHALIDES AND BORANE TOWARD TRIMETHYLAMINE DETERMINED BY PROTON N.M.R. (NUCLEAR MAGNETIC RESONANCE) MEASUREMENTS
J. M. Miller and M. Onyszchuk
Can. J. Chem. 42 (7), 1518-23 (1964)
61:5111a

DIFLUORODIAZIRINE. I. PHYSICAL AND SPECTRAL PROPERTIES
Ronald A. Mitsch
J. Heterocyclic Chem. 1 (1), 59-60 (1964)
60:14488d

EXCHANGE OF PARTS BETWEEN MOLECULES AT EQUILIBRIUM.
I. α_{ω} -DISUBSTITUTED POLYDIMETHYLSILOXANES
Kurt Moedritzer and John R. Van Wazer
J. Am. Chem. Soc. 86 (5), 802-7 (1964)
60:8881f

INTRAMOLECULAR LIGAND EXCHANGE IN SEVEN COORDINATE STRUCTURES
E. L. Muettterties and K. J. Packer
J. Am. Chem. Soc. 86 (2), 293-4 (1964)
60:7661c

DIRECT ^{55}Mn N.M.R. (NUCLEAR MAGNETIC RESONANCE) ABSORPTION IN ANTIFERROMAGNETIC KMnF_3
A. Nakamura, V. Minkiewicz, and A. M. Portis
J. Appl. Phys. 35 (3), Pt. 2, 842-3 (1964)
60:8803a

NUCLEAR MAGNETIC RESONANCE FLUORINE-FLUORINE COUPLING CONSTANTS
Soon Ng and C. H. Sederholm
J. Chem. Phys. 40 (8), 2090-4 (1964)
60:12796f

PHOSPHORUS-31 NUCLEAR MAGNETIC RESONANCE STUDIES OF PHOSPHORUS-FLUORINE COMPOUNDS
John F. Nixon and Reinhard Schmutzler
Spectrochim. Acta 20 (12), 1835-42 (1964)
62:1229d

NUCLEAR INTERACTIONS AND ROTATIONAL MOMENT OF F_2
Irving Ozier, Lawrence M. Crapo, James W. Cederberg, and Norman F. Ramsey
Phys. Rev. Letters 13 (15), 482-4 (1964)
62:119d

THE HEXAFLUOROARSENATE ION, A PROBE FOR ION ASSOCIATION
K. J. Packer and E. L. Muettterties
Proc. Chem. Soc. 147 (May 1964)
61:3832g

MAGNETIC SHIELDING TRANSITION IN SOLID CeF_4
M. Pintar
Phys. Letters 10 (3), 265-6 (1964)
61:7850f

ANTIFERROMAGNETIC RESONANCE IN CoF_2 , NiF_2 , AND MnCO_3
P. L. Richards
J. Appl. Phys. 35 (3), Pt. 2, 850-1 (1964)
60:8768d

NUCLEAR MAGNETIC RESONANCE STUDIES OF BF_3 ADDITION COMPOUNDS. II. EXCHANGE OF BF_3 BETWEEN $\text{PhOMe} \cdot \text{BF}_3$ AND $\text{Et}_2\text{O} \cdot \text{BF}_3$
A. C. Rutenberg, A. A. Palko, and J. S. Drury
J. Phys. Chem. 68 (4), 976-8 (1964)
61:1407h

PHOSPHORUS FLUORINE CHEMISTRY. VIII. THE GROUP SHIFT THEORY, AS APPLIED TO THE ^{31}P NUCLEAR MAGNETIC RESONANCE SPECTRA OF CERTAIN PHOSPHORUS FLUORIDES
R. Schmutzler
J. Chem. Soc. 4551-7 (Nov. 1964)
62:1228b

^{19}F NUCLEAR MAGNETIC RESONANCE SPECTRA OF THE DISULFURDIFLUORIDE ISOMERS
Fritz Seel, Rudolf Budenz, and Dietmar Werner
Ber. 97 (5), 1369-72 (1964)
61:3834a

TRIMERIC SULFANURIC FLUORIDE
F. Seel and G. Simon
Z. Naturforsch. 19b (4), 354-5 (1964)
61:3902f

INVESTIGATION OF THE CHEMICAL DISPLACEMENTS OF NUCLEAR MAGNETIC RESONANCE SIGNALS OF FLUORIDE IONS IN CRYSTALS AND SOLUTIONS
F. I. Skripov and I-Chu Wang
Wu Li Hsueh Pao 20, 41-54 (1964) (In Chinese)
65:11573c

NUCLEAR MAGNETIC RESONANCE (N.M.R.) AND MOLECULAR FIELD APPROXIMATION IN KCoF_3
Tung Tsang
J. Chem. Phys. 40 (3), 729-33 (1964)
60:7593b

MOTIONAL NARROWING OF NUCLEAR MAGNETIC RESONANCE (N.M.R.) LINES IN MANGANESE-DOPED LITHIUM FLUORIDE
T. G. Stoebe, T. O. Ogurtani, and R. A. Huggins
Phys. Rev. 134 (4A), 963-4 (1964)
60:15321d

NUCLEAR MAGNETIC RESONANCE (N.M.R.) CHEMICAL SHIFT OF F ION IN CRYSTAL AND SOLUTION
I-Chiu Wang
Wu Li Hsueh Pao 20 (1), 41-54 (1964)
61:3834e

STUDIES ON THE PREPARATION AND FLUORINE AND ITS COMPOUNDS. VIII. THE FORMATION REACTION OF GRAPHITE FLUORIDE
Nobuatsu Watanabe, Yoshiyuki Koyama, and Shiro Yoshizawa
J. Electrochem. Soc. Japan 32 (1), 17-25 (1964)
65:14820g

1965

ANTIMONY PENTAHALIDES. THE MIXED CHLOROFLUORIDES
N. E. Aubrey and J. R. Van Wazer
J. Inorg. Nucl. Chem. 27 (8), 1761-8 (1965)
63:7866f

PURE AND HF-DOPED ICE BY PULSED NUCLEAR MAGNETIC RESONANCE
Dennis Earl Barna
Univ. Microfilms (Ann Arbor, Mich.), Order No. 65-7867, 175 pp.; Dissertation Abstr. 26 (2), 1116 (1965)
63:15747b

NUCLEAR MAGNETIC RESONANCE STUDY OF TRIFLUORIDES OF Ce GROUP RARE EARTH ELEMENTS
E. A. Baturina, Yu. A. Luk'yanychev, and O. T. Malyuchkov
Fiz. Tverd. Tela 7 (6), 1892-4 (1964) (In Russian)
65:12532a

ISOTOPIC EXCHANGE REACTIONS OF DIFLUORAMINE WITH DEUTERIUM OXIDE AND TRIFLUOROACETIC ACID
Warren E. Becker and Fred J. Impastato
Advan. Chem. Ser. 54, 132-40 (1965)
65:4712f

CHEMICAL SHIFTS OF THE NUCLEAR MAGNETIC RESONANCE ^{19}F SIGNALS OF HYDROFLUORIC ACID AQUEOUS SOLUTIONS OF VARIOUS CONCENTRATIONS
P. M. Borodin and E. N. Sventitskii
Yadern. Magnitn. Rezonans, Leningr. Gos. Univ. No. 1, 76-82 (1965) (In Russian)
65:6544b

NUCLEAR MAGNETIC RESONANCE INVESTIGATION OF THE ELECTROLYTE STRUCTURE IN THE PHASE OF ION-EXCHANGE RESINS
P. M. Borodin, M. K. Nikitin, and E. N. Sventitskii
Zh. Strukt. Khim. 6 (2), 188-91 (1965)
63:3658b

NUCLEAR MAGNETIC RESONANCE STUDY OF THE ELECTROLYTE STRUCTURE IN THE PHASE OF ION-EXCHANGE RESINS
P. M. Borodin, M. K. Nikitin, and E. N. Sventitskii
Yadern. Magnitn. Rezonans, Leningr. Gos. Univ. No. 1, 83-9 (1965) (In Russian)
65:4694h

COMPLEXES OF BORON TRIFLUORIDE WITH FLUOBORATES
S. K. Brownstein and J. Paasivirta
Can. J. Chem. 43 (6), 1645-9 (1965)
63:2606g

SPECTROSCOPIC INVESTIGATIONS ON THE STRUCTURE OF $\text{SiF}_4 \cdot 2$ (AMINES) ADDUCTS
H. Buerger, W. Sawodny, and F. Hoefler
Monatsh. Chem. 96 (5), 1437-45 (1965) (In German)
64:9084h

NUCLEAR MAGNETIC RESONANCE OF ^{19}F IN THE SOLUTIONS OF FLUORIDES OF THE ELEMENTS OF GROUP IV
Yu. A. Buslaev, V. A. Shcherbakov, and M. E. Dyatkina
Zh. Strukt. Khim. 6 (1), 16-20 (1965) (In Russian)
63:164f

PENTACOORDINATED MOLECULES. V. THE PREPARATION AND PROPERTIES OF PCl_4^+
Richard P. Carter, Jr., and Robert R. Holmes
Inorg. Chem. 4 (5), 738-9 (1965)
62:14164e

IONIC COMPLEXES CONTAINING THE DIFLUOROCHLORINIUM CATION
K. O. Christe and A. E. Pavlath
Z. Anorg. Allgem. Chem. 335 (3-4), 210-16 (1965)
62:12731c

TUNGSTEN CHLORIDE PENTAFLUORIDE
B. Cohen, A. J. Edwards, M. Mercer, and R. D. Peacock
Chem. Commun. 322-3, 1965(14)
63:9418e

ONE PHOTON-TWO SPINS PROCESSES
R. Deltour and J. Jeener
Proc. Colloq. AMPERE (Atomes Mol. Etudes Radio Elec.) 13, 271-2 (1964) (Pub. 1965)
64:18736a

- NUCLEAR MAGNETIC RESONANCE STUDY OF SOME PARAMAGNETIC HYDRATED FLUORIDES
 K. R. K. Easwaran and R. Srinivasan
Proc. Nucl. Phys. Solid State Phys. Symp., Calcutta
 1965 (Pt. A), 171-80
 65:11574g
- TRANSITION-METAL PEROXY COMPLEXES. IV. PEROXY-FLUORO COMPLEXES
 D. F. Evans, W. P. Griffith, and L. Pratt
J. Chem. Soc. 2182-4 (Mar. 1965)
 62:11323a
- SPIN-ROTATION INTERACTION AND MAGNETIC SHIELDING IN OF₂
 W. H. Flygare
J. Chem. Phys. 42 (4), 1157-61 (1965)
 62:7257a
- THE CRYSTALLINE HYDRATE UF₄.4/3H₂O
 Yu. V. Gagarinskii, E. I. Khanayev, N. P. Galkin,
 L. A. Anan'eva, and S. P. Gabuda
At. Energ. (USSR) 18 (1), 40-5 (1965) (In Russian)
 62:12728c
- A NUCLEAR MAGNETIC RESONANCE INVESTIGATION OF ETHER-BORON HALIDE MOLECULAR ADDITION COMPOUNDS IN DI-CHLOROMETHANE
 Ernest Gore and Steven S. Danyluk
J. Phys. Chem. 69 (1), 89-95 (1965)
 62:4801g
- NUCLEAR MAGNETIC RESONANCE INVESTIGATIONS OF SOME GROUP V METAL FLUORIDES AND OXYIONS
 J. V. Hatton, Y. Saito, and W. G. Schneider
Can. J. Chem. 43 (1), 47-56 (1965)
 62:6035e
- MEASUREMENT BY N.M.R. OF THE DIFFUSION RATE OF HF IN ICE
 Marcel Kopp, Dennis E. Barnaai, and Irving J. Lowe
J. Chem. Phys. 43 (9), 2965-71 (1965)
 63:17346a
- ¹⁹F NUCLEAR MAGNETIC RESONANCE LINE NARROWING IN LaF₃ AT 300°K
 Kenneth Lee and Arden Sher
Phys. Rev. Letters 14 (25), 1027-9 (1965)
 63:10882d
- MAGNETIC PROPERTIES OF CoF₂
 M. E. Lines
Phys. Rev. 137 (3A), 982-93 (1965)
 62:5991h
- SPLITTING OF ¹⁹F NUCLEAR MAGNETIC RESONANCE LINE IN A Co²⁺-DOPED NaF CRYSTAL
 Amory B. Lovins
J. Chem. Phys. 42 (5), 1558-9 (1965)
 62:9957c
- COMPOSITION AND STRUCTURE OF CRYSTAL HYDRATES OF LANTHANUM AND CERIUM TRIFLUORIDES
 Yu. A. Luk'yanychev, E. A. Baturina, and O. T. Maiyuchkov
Izv. Akad. Nauk SSSR, Neorgan. Materialy 1 (12), 2182-8 (1965) (In Russian)
 64:11073g
- NUCLEAR MAGNETIC RESONANCE STUDIES OF PURE AND SAMARIUM-DOPED CaF₂ CRYSTALS
 R. J. Lysiak and P. P. Mahendroo
J. Chem. Phys. 44 (10), 4025-9 (1965)
 65:1626e
- PHONON-INDUCED NUCLEAR DIPOLE TRANSITIONS
 R. J. Mahler
Proc. Colloq. Ampere (Atomes Mol. Etudes Radio Elec) 13, 202-9 (1964) (Pub. 1965)
 64:16799b
- STEREOCHEMICAL NONRIGIDITY IN PF₃Cl₂ AND PF₃Br₂
 W. Mahler and E. L. Muettterties
Inorg. Chem. 4 (10), 1520 (1965)
 64:4475h
- NUCLEAR RESONANCE IN SOLID NITROGEN TRIFLUORIDE
 G. A. Matzkanin, T. A. Scott, and P. J. Haigh
J. Chem. Phys. 42 (5), 1646-51 (1965)
 62:11318c
- THE PREPARATION OF FLUORODIAZONIUM HEXAFLUORO-ARSENATE (N₂F⁺-AsF₆⁻) FROM cis-DIFLUORODIAZINE
 David Moy and Archie R. Young, II
J. Am. Chem. Soc. 87 (9), 1889-92 (1965)
 62:15741d
- THE RADICAL DECOMPOSITION OF PEROXYSULFURYL DI-FLUORIDE (FSO₂-OOF) AND RELATED COMPOUNDS BY CHEMICAL AND ELECTRON PARAMAGNETIC RESONANCE METHODS
 Franz Neumayr and N. Vanderkooi, Jr.
Inorg. Chem. 4 (8), 1234-7 (1965)
 63:10991e
- NUCLEAR MAGNETIC RESONANCE STUDIES. I. ¹⁹F SPIN-SPIN COUPLING CONSTANTS. II. THE EFFECT OF SOLVENTS ON ¹⁹F SPIN-SPIN COUPLING CONSTANTS
 Soon Ng
Univ. Microfilms (Ann Arbor, Mich.), Order No. 64-13,064, 71 pp., *Dissertation Abstr.* 25 (7), 3863 (1965)
 62:15609d
- N.M.R. MEASUREMENT OF EQUILIBRIUM CONSTANTS BETWEEN BORON FLUORIDE ETHYL ETHER COMPLEX AND CYCLIC ETHERS
 Masahiko Okada, Katsuhiko Suyama, and Yuya Yamashita
Tetrahedron Letters 2329-32, 1965 (28)
 64:558h
- EXCHANGE REACTIONS IN THE SYSTEM BORON TRIFLUORIDE-METHANOL
 J. Paasivirta and S. Brownstein
J. Am. Chem. Soc. 87 (16), 3593-7 (1965)
 63:9430d
- NUCLEAR MAGNETIC RESONANCE IN RbMnF₃
 Richard E. Payne, Richard A. Forman, and Arnold H. Kahn
J. Chem. Phys. 42 (11), 3806-8 (1965)
 63:167h
- LOW- AND HIGH-TEMPERATURE MAGNETIC RESONANCE AND RELAXATION OF NaF:Mn²⁺
 G. A. Persyn and A. W. Nolle
Phys. Rev. 140 (5A), 1610-19 (1965)
 64:194g

^{19}F NUCLEAR MAGNETIC RESONANCE IN NaNiF_3 AND NaCoF_3
M. P. Petrov
Fiz. Tverd. Tela 7 (6), 1663-6 (1965) (In Russian)
63:7795h

NUCLEAR MAGNETIC RESONANCE IN PARAMAGNETIC TiMnF_3
M. P. Petrov and G. A. Smolenskii
Fiz. Tverd. Tela 7 (7), 2156-61 (1965) (In Russian)
63:12537d

NUCLEAR MAGNETIC RESONANCE IN RbMnF_3
M. P. Petrov, G. A. Smolenskii, and P. P. Syrnikov
Fiz. Tverd. Tela 7 (12), 3689-90 (1965) (In Russian)
64:10622d

FLUORINE-19 NUCLEAR MAGNETIC RESONANCE STUDY OF
SOME PENTAFLUOROSTANNATE COMPLEXES
Ronald O. Ragsdale and Burch B. Stewart
Inorg. Chem. 4 (5), 740-2 (1965)
62:14068a

NUCLEAR MAGNETIC RESONANCE STUDIES OF FLUORIDES OF
TRIVALENT PHOSPHORUS
G. S. Reddy and R. Schmutzler
Z. Naturforsch. 20b (2), 104-9 (1965)
63:1371f

NUCLEAR MAGNETIC RESONANCE ANALYSIS OF GLASS SENSITIVE MATERIALS
Russell R. Reinhard
Rev. Sci. Instr. 36 (4), 549 (1965)
62:15407e

ANISOTROPY OF THE FLUORINE CHEMICAL SHIFT TENSOR IN
 UF_6
Paul Rigny
Comm. Energie At. (France), Rappt. CEA-R 2827,
30 pp. (1965) (In French)
64:9112b

N,N-DIFLUORO-O-PENTAFLUOROSULFANYLHYDROXYLAMINE
John K. Ruff
Inorg. Chem. 4 (12), 1788-9 (1965)
64:1613b

THE REACTION OF ANTIMONY(V) FLUORIDE WITH TETRAFLUOROHYDRAZINE
John K. Ruff
J. Am. Chem. Soc. 87 (5), 1140-1 (1965)
62:11408b

THE PREPARATION AND NUCLEAR MAGNETIC RESONANCE OF
KRYPTON DIFLUORIDE
F. Schreiner, J. G. Malm, and J. C. Hindman
J. Am. Chem. Soc. 87 (1) 25-8 (1965)
62:3639h

THE PREPARATION AND OXYGEN-17 NUCLEAR MAGNETIC RESONANCE SPECTRUM OF $\text{Xe}^{17}\text{OF}_4$
Jacob Shamir, H. Selig, David Samuel, and J. Reuben
J. Am. Chem. Soc. 87 (11), 2359-60 (1965)
63:1374b

CORRELATION BETWEEN CATALYTIC ACTIVITY AND N.M.R.
(NUCLEAR MAGNETIC RESONANCE) CHEMICAL SHIFT OF CsF
V. A. Sokolenko, M. I. Afanas'ev, Yu. N. Molin, and
G. G. Yakobson
Reaktsionnaya Sposobnost Organ. Soedin., Tartusk.
Gos. Univ. 2 (1), 216-21 (1965) (In Russian)
64:4473a

NUCLEAR MAGNETIC RESONANCE OF POLARIZED ^{17}F FORMED
THROUGH THE $^{16}\text{O}(\text{d}, \text{n})^{17}\text{F}$ REACTION
K. Sugimoto, A. Mizobuchi, K. Nakai, and K. Matuda
Phys. Letters 18 (1), 38-9 (1965)
64:5970a

THE FLUOROSULFURIC ACID SOLVENT SYSTEM. II. SOLUTIONS OF ANTIMONY PENTAFLUORIDE, ANTIMONY TETRAFLUORIDE MONOFLUOROSULFATE, AND ANTIMONY PENTAFLUORIDE-SULFUR TRIOXIDE MIXTURES
R. C. Thompson, J. Barr, R. J. Gillespie, J. B. Milne, and R. A. Rothenbury
Inorg. Chem. 4 (11), 1641-9 (1965)
63:17211b

ELECTRONEGATIVITY EFFECTS ON ^{11}B CHEMICAL SHIFTS IN
TETRAHEDRAL BX_4^- IONS
Ralph J. Thompson and Jeff C. Davis, Jr.
Inorg. Chem. 4 (10), 1464-7 (1965)
63:14365d

SILICON-FLUORINE CHEMISTRY. II. SILICON-BORON
FLUORIDES
P. L. Timms, T. C. Ehlert, J. L. Margrave, F. E. Brinckman, T. C. Farrar, and T. D. Coyle
J. Am. Chem. Soc. 87 (17), 3819-23 (1964)
63:10984d

HIGH ENERGY OXIDIZERS IN SOLUTION: THE SYSTEM
 $\text{F}_2/\text{NF}_3/\text{HF}$
W. E. Tolberg, R. S. Stringham, and M. E. Hill
Am. Chem. Soc., Div. Fuel Chem., Preprints 9 (1),
136-41 (1965)
65:17768c

NUCLEAR DOUBLE RESONANCE OF ^{43}Ca IN CaF_2
R. E. Walstedt, D. A. McArthur, and E. L. Hahn
Phys. Letters 15 (1), 7-8 (1965)
63:164h

RELATIVE SIGNS OF NUCLEAR SPIN COUPLINGS IN
 $^{1}\text{H}^{11}\text{B}^{19}\text{F}_2$
Earl B. Whipple, Thomas H. Brown, Thomas C. Farrar, and T. D. Coyle
J. Chem. Phys. 43 (5), 1841-2 (1965)
63:14237e

1966

IMPULSE N.M.R. (NUCLEAR MAGNETIC RESONANCE) STUDY OF INTERNAL MOVEMENT IN SOME SOLIDS
A. G. Akhmedov, R. A. Dautov, and G. T. Petrov
Fiz. Tverd. Tela 8 (3), 858-61 (1966) (In Russian)
64:18732f

NONAQUEOUS SOLUTIONS OF ELECTROLYTES. I. THE ^{76}As NUCLEAR MAGNETIC SPIN-LATTICE RELAXATION TIMES OF THE HEXAFLUOROARSENATE ION
M. St. J. Arnold and K. J. Packer
Mol. Phys. 10 (2), 141-53 (1966)
64:18738b

MEASURED NUCLEAR MAGNETIC RESONANCE FREE-INDUCTION-DECAY SHAPES AND MOMENTS FOR ^{19}F IN CaF_2
D. E. Barnaall and I. J. Lowe
Phys. Rev. 148 (1), 328-31 (1966)
65:8218b

NITROGEN OXIDE TRIFLUORIDE
Neil Bartlett, J. Passmore, and E. J. Wells
Chem. Commun. 213-14, 1966 (7)
64:18948g

NUCLEAR MAGNETIC RESONANCE AND RELAXATION OF HEXAFLUORIDE MOLECULES IN THE SOLID
R. Blinc, E. Pirkmajer, J. Slivnik, and I. Zupancic
J. Chem. Phys. 45 (5), 1488-95 (1966)
65:13041a

NUCLEAR MAGNETIC RESONANCE SPECTRUM OF A NEARLY LINEAR FIVE-SPIN SYSTEM. HYDROGEN BOUNDING IN KH_2F_3
R. Blinc, Z. Trontelj, and B. Volavsek
J. Chem. Phys. 44 (3), 1028-33 (1966)
64:9111d

NUCLEAR MAGNETIC RESONANCE STUDIES OF SOME MATERIALS CONTAINING BIVALENT EUROPIUM
E. L. Boyd
Phys. Rev. 145 (1), 174-8 (1966)
64:18731c

NATURE OF Nb(V) FLUORIDE SPECIES IN SOLUTION
M. Nabi Bukhsh
Sci. Res. (Dacca, Pakistan) 3 (1), 48-51 (1966)
64:11572e

CHEMICAL SHIFTS AND NUCLEAR MAGNETIC RESONANCE SPECTRA OF ^{19}F IN GROUPS V AND VI TRANSITION ELEMENT FLUORIDE SOLUTIONS
Yu. A. Buslaev and V. A. Shcherbakov
Zh. Strukt. Khim. 7 (3), 345-50 (1966) (In Russian)
65:13045g

PREPARATION AND PROPERTIES OF PENTAFLUOROSULFANYLIMINOSULFUR DIFLUORIDE, $\text{SF}_5\text{N}:\text{SF}_2$
Alan F. Clifford and James Wood Thompson
Inorg. Chem. 5 (8), 1424-7 (1966)
65:8321f

PENTAFLUOROSULFUR IMINOSULFUR DIFLUORIDE
B. Cohen, T. R. Hooper, and R. D. Peacock
Chem. Commun. 32, 1966 (1)
64:7661a

INTERPRETATION OF THE CHEMICAL SHIFT OF ClF
C. D. Cornwell
J. Chem. Phys. 44 (3), 874-80 (1966)
64:8937h

NUCLEAR MAGNETIC RESONANCE STUDIES OF INORGANIC FLUORIDES. II. SOLVENT EFFECTS ON J ($^{29}\text{Si}-^{19}\text{F}$) IN SILICON TETRAFLUORIDE
T. D. Coyle, R. B. Johannessen, F. E. Brinckman, and T. C. Farrar
J. Phys. Chem. 70 (5), 1682-4 (1966)
65:6545a

NUCLEAR MAGNETIC RESONANCE STUDIES OF DONOR-ACCEPTOR INTERACTION IN BORON TRIHALIDE COMPLEXES. II. DONOR STRENGTHS OF ETHYL ACETATE AND SUBSTITUTED ETHYL ACETATES
P. G. Davies and E. F. Mooney
Spectrochim. Acta 22 (5), 953-5 (1966)
65:2095b

OSCILLATING-FIELD-INDUCED MAGNETIZATION IN SOLIDS
H. M. Einbinder and S. R. Hartmann
Phys. Rev. Letters 17 (10), 518-21 (1966)
65:17880h

THE CHEMISTRY OF BIS(MONOFLUOROCARBONYL) PEROXIDE: GENERATION OF THE FLUOROFORMYL RADICAL AND SYNTHESIS OF FLUOROFORMYL SULFURYL FLUORIDE
W. B. Fox and G. Franz
Inorg. Chem. 5 (5), 946-9 (1966)
65:1750a

TRIFLUORAMINE OXIDE
W. B. Fox, J. S. MacKenzie, N. Vanderkooi, B. Sukornick, C. A. Wamser, J. R. Holmes, R. E. Eibeck, and B. B. Stewart
J. Am. Chem. Soc. 88 (11), 2604-5 (1966)
65:6709g

NUCLEAR MAGNETIC RESONANCE AND THE ELECTRONIC STRUCTURE OF URANIUM, THORIUM, AND ZIRCONIUM TETRAFLUORIDES
S. P. Gabuda, Yu. V. Gagarinskii, and A. G. Lundin
Zh. Strukt. Khim. 7 (2), 192-9 (1966)
65:3203c

THE FLUOROSULFURIC ACID SOLVENT SYSTEM. V. IODINE TRIFLUOROSULFATE
R. J. Gillespie and J. B. Milne
Inorg. Chem. 5 (7), 1236-8 (1966)
65:4718f

THE HYDROGEN FLUORIDE SOLVENT SYSTEM. I. SOLUTIONS OF ANTIMONY PENTAFLUORIDE AND ANTIMONY TETRAFLUORIDE MONOFLUOROSULFATE
R. J. Gillespie and K. C. Moss
J. Chem. Soc., A, Inorg. Phys. Theoret. 1170-5, 1966 (9)
65:14498d

COUPLING CONSTANT AND CHEMICAL SHIFT OF TETRAFLUORBORATE ION IN MIXED SOLVENTS
R. Haque and L. W. Reeves
J. Phys. Chem. 70 (9), 2753-7 (1966)
65:12918f

NUCLEAR-MAGNETIC-RESONANCE STUDIES OF CRITICAL PHENOMENA IN MnF_2 . I. TIME-AVERAGE PROPERTIES
Peter Heller
Phys. Rev. 146 (2), 403-22 (1966)
65:1634c

PHOSPHORYL AND THIOPHOSPHORYL COMPOUNDS. IV. ^{19}F AND ^{31}P NUCLEAR MAGNETIC RESONANCE SPECTRA OF SPF_3 , SPF_2Cl , AND SPF_2Br
Hans Georg Horn and Achim Mueller
Z. Anorg. Allgem. Chem. 346 (5-6), 266-71 (1966)
65:17934e

NUCLEAR MAGNETIC RESONANCE STUDIES OF INORGANIC FLUORIDES. I. HIGH-RESOLUTION ^{19}F SPECTRA OF Si_2F_6 AND $(\text{SiF}_3)_2\text{O}$
Rolf B. Johannessen, T. C. Farrar, F. E. Brinckman, and T. D. Coyle
J. Chem. Phys. 44 (3), 962-4 (1966)
64:9112h

CONTRASTING BEHAVIOR OF BORON TRIFLUORIDE AND PHOSPHORUS PENTAFLUORIDE TOWARD SULFOLANE
John G. Jones
Inorg. Chem. 5 (7), 1229-32 (1966)
65:5336b

¹⁹F N.M.R. SPIN ECHO IN ANTIKERROMAGNETIC MnF₂
N. Kaplan, P. Pincus, and V. Jaccarino
J. Appl. Phys. 37 (3), 1239-41 (1966)
64:13583d

NUCLEAR MAGNETIC RESONANCE INVESTIGATIONS OF THE
STRUCTURE OF GLASSES IN THE SYSTEM NaFe-Na₂O-B₂O₃
D. Kline and P. J. Bray
Phys. Chem. Glasses 7 (2), 41-51 (1966)
64:17220b

METAL TRIFLUOROPHOSPHINE COMPLEXES. XII. IODINE
TETRAKIS(TRIFLUOROPHOSPHINE)COBALT
Th. Kruck and W. Lang
Z. Anorg. Allgem. Chem. 343 (3-4), 181-95 (1966)
(In German)
64:18938d

NUCLEAR MAGNETIC RESONANCE OF AMMONIUM HEPTAFLUORO-
ZIRCONATE
G. Lahajnar, M. Pintar, and J. Slivnik
Croat. Chem. Acta 38, 63-4 (1966)
65:14676g

¹⁹F CHEMICAL SHIFT OF DIOXYGEN DIFLUORIDE
N. J. Lawrence, J. S. Ogden, and J. J. Turner
Chem. Commun. 4, 102-3 (1966)
64:18738a

ANISOTROPY OF MAGNETIC SHIELDING OF ¹⁹F NUCLEI IN
LaF₃ SINGLE CRYSTALS
A. G. Lundin and S. P. Gabuda
Fiz. Tverd. Tela 8 (6), 1889-94 (1966) (In Russian)
65:12991e

NUCLEAR RESONANCE LINE NARROWING IN SOLIDS BY RE-
PEATED SHORT-PULSE r.f. (RADIO-FREQUENCY) IRRADIA-
TION
P. Mansfield and D. Ware
Phys. Letters 22 (2), 133-5 (1966)
65:13040b

REACTION OF THE TRIMETAPHOSPHATE ION WITH THE FLUOR-
IDE ION IN AQUEOUS SOLUTION
R. E. Mesmer
J. Inorg. Nucl. Chem. 28 (2), 691-3 (1966)
64:18950a

DIFLUOROCYANAMIDE
M. D. Meyers and S. Frank
Inorg. Chem. 5 (8), 1455-7 (1966)
65:13197b

MAGNETIC PROPERTIES OF KMnF₃. III. NUCLEAR AND
ELECTRON SPIN RESONANCE
V. Minkiewicz and A. Nakamura
Phys. Rev. 143 (2), 356-60 (1966)
64:16798e

THE ¹⁹F NUCLEAR MAGNETIC RESONANCE SPECTRA OF
LIQUID AND GASEOUS FLUORINE, OXYGEN DIFLUORIDE,
AND NITROGEN TRIFLUORIDE
J. W. Nebgen, W. B. Rose, and F. I. Metz
J. Mol. Spectry 20 (1), 72-4 (1966)
65:1627c

A SIMPLE GLASS APPARATUS FOR NUCLEAR MAGNETIC
RESONANCE SPECTROSCOPY AT LOW TEMPERATURES
J. S. Ogden and J. J. Turner
Chem. Ind. (London) 1295-6, 1966 (30)
65:11575h

FLUORINE MAGNETIC RESONANCE SHIFTS IN PARAMAGNETIC
PuF₄
M. Pintar, J. Porok, and J. Slivnik
Croat. Chem. Acta 38, 61-2 (1966)
65:14676f

NUCLEAR MAGNETIC RESONANCE EVIDENCE FOR CONTACT
HYPERFINE COUPLING IN PARAMAGNETIC UF₄
M. Pintar
Phys. Status Solidi 14 (2), 291-5 (1966)
64:18728c

FLUOROPHOSPHINE LIGANDS. II. THE PREPARATION AND
CHARACTERIZATION OF DIFLUOROIDOPHOSPHINE
R. W. Rudolph, J. G. Morse, and R. W. Parry
Inorg. Chem. 5 (8), 1464-6 (1966)
65:13197e

FLUOROPHOSPHINE LIGANDS. III. SYNTHESSES INVOLVING
PF₂I. THE PREPARATION AND CHARACTERIZATION OF μ -
OXOBISDIFLUOROPHOSPHINE, CYANODIFLUOROPHOSPHINE,
AND TETRAFLUORODIPHOSPHINE
R. W. Rudolph, R. C. Taylor, and R. W. Parry
J. Am. Chem. Soc. 88 (16), 3729-34 (1966)
65:11738b

THE PREPARATION AND CHEMISTRY OF N-CHLOROIMIDODI-
SULFURYL FLUORIDE
John K. Ruff
Inorg. Chem. 5 (5), 732-5 (1966)
64:17023g

NUCLEAR MAGNETIC RESONANCE IN THALLIUM HALIDES
Yushiro Saito
J. Phys. Soc. Japan 21 (6), 1072-81 (1966)
65:4871b

NUCLEAR MAGNETIC RESONANCE IN RARE EARTH FLUORIDES.
V. Saraswati and R. Vijayaraghavan
Phys. Letters 21 (4), 363-4 (1966)
65:9972a

TRANSPORT PROPERTIES OF LaF₃
A. Sher, R. Solomon, K. Lee, and M. W. Muller
Phys. Rev. 144 (2), 593-604 (1966)
64:15123d

NUCLEAR MAGNETIC RESONANCE STUDIES OF DIFFUSION IN
LITHIUM FLUORIDE
Thomas Gaines Stoebe
Univ. Microfilms (Ann Arbor, Mich.), Order No. 65-
12,875, 269 pp.; Dissertation Abstr. 26 (7), 3849
(1966)
64:12066g

MAGNETIC MOMENT OF ¹⁷F. NUCLEAR MAGNETIC RESONANCE
BY POLARIZATION FOLLOWING ¹⁶O (d,n)¹⁷F REACTION
Kenzo Sugimoto, Akira Mizobuchi, Joji Nakai, Koji
Matsuda
J. Phys. Soc. Japan 21 (2), 213-21 (1966)
64:18738c

NUCLEAR MAGNETIC RESONANCE AND ELECTRON PARAMAG-
NETIC RESONANCE SPECTRA OF LITHIUM PLATELETS IN
LITHIUM FLUORIDE
Christiane Taupin
Compt. Rend., Ser. A, B 262B (25), 1617-20 (1966)
(In French)
65:11576d

THE SYNTHESIS OF THE PERFLUOROAMMONIUM CATION, NF_4^+
W. E. Tolberg, R. T. Rewick, R. S. Stringham, and
M. E. Hill
Inorg. Nucl. Chem. Letters 2 (3), 79-82 (1966)
65:6709c

NUCLEAR MAGNETIC RESONANCE IN RbMnF_3
M. B. Walker and R. W. H. Stevenson
Proc. Phys. Soc. (London) 87 (1), 35-43 (1966)
64:5969b