

## Publication List

### **Oxford (1) 1951-1957**

- 1) The Proton Magnetic Resonance Spectrum of Potassium Amide  
R. Freeman and R. E. Richards  
Trans. Faraday Soc. 52, 802 (1956).
- 2) Cobalt Nuclear Resonance Spectra  
R. Freeman, G. R. Murray and R. E. Richards  
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- 3) Chemical Shifts of Thallium Resonance Spectra in Solutions  
of Thallous Salts  
R. Freeman, R. P. H. Gasser, R. E. Richards and D. H. Wheeler  
Mol. Phys. 2, 75 (1959).
- 4) Thallium Nuclear Resonance Spectra Part II  
R. Freeman, R. P. H. Gasser and R. E. Richards  
Mol. Phys. 2, 301 (1959).

### **Saclay 1957-1959**

- 5) Frequency Control of an Oscillator by Nuclear Magnetic Resonance  
R. V. Pound and R. Freeman  
Rev. Sci. Instr. 31, 96 (1960).
- 6) High Resolution NMR Spectrometer with the Radio Frequency  
Controlled by the Magnetic Field  
R. Freeman and R. V. Pound  
Rev. Sci. Instr. 31, 103 (1960).

### **NPL 1959-1963**

- 7) Spin Decoupling in High-Resolution Proton Magnetic Resonance  
R. Freeman  
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- 8) The Influence of Molecular Shape on Solvent Shifts in the Proton  
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P. Diehl and R. Freeman  
Mol. Phys. 4, 39 (1961).
- 9) Measurement of Magnetic Field Contours  
R. Freeman  
J. Sci. Instr. 38, 318 (1961).
- 10) Determination of the Relative Signs of Proton Spin Coupling  
Constants by Double Irradiation

R. Freeman and D. H. Whiffen  
Mol. Phys. 4, 321 (1961).

- 11) The Relative Signs of NMR Spin Coupling Constants from Double Irradiation Experiments  
R. Freeman  
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- 12) The Nuclear Magnetic Resonance Spectrum of 2:3-dibromobutyric acid; A Negative Long-Range Spin Coupling Constant  
R. Freeman and K. G. R. Pachler  
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- 13) The Effect of a Second Radiofrequency Field on High Resolution Proton Magnetic Resonance Spectra  
R. Freeman and D. H. Whiffen  
Proc. Phys. Soc. 79, 794 (1962).
- 14) Clarification of Ambiguous Nuclear Magnetic Resonance Spectra by Double Irradiation  
R. J. Abraham, R. Freeman, L. D. Hall and K. A. McLauchlan  
J. Chem. Soc. 2080 (1962).
- 15) The Relative Signs of Geminal and Vicinal Proton Spin Coupling Constants  
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Mol. Phys. 5, 321 (1962).
- 17) Spin Decoupling of High Resolution NMR Spectra of the Type AKX<sub>2</sub>  
R. Freeman  
Mol. Phys. 5, 499 (1962).
- 21) Proton Spin Coupling Through Five Chemical Bonds  
R. Freeman  
Mol. Phys. 6, 535 (1963).
- 24) Determination of the Signs of Long-Range Proton Spin Coupling Constants by Nuclear Magnetic Triple Resonance  
A. D. Cohen, R. Freeman, K. A. McLauchlan and D. H. Whiffen  
Mol. Phys. 7, 45 (1963).
- 25) NMR of Isotopically Substituted Molecules. A Complete Analysis of the Spectrum of Acrylonitrile  
R. Freeman  
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**Varian (1961 visit and) 1963 -1973**

- 16) Influence of a Second Radiofrequency Field on High-Resolution Nuclear Resonance Spectra

W. A. Anderson and R. Freeman  
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- 18) Use of Weak Perturbing Magnetic Fields in Nuclear Magnetic Double Resonance  
R. Freeman and W. A. Anderson  
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- 19) Analysis of Weakly Coupled Nuclear Magnetic Resonance Spectra: Methyl Salicylate  
R. Freeman, N. S. Bhacca and C. A. Reilly  
J. Chem. Phys. 38, 293 (1963).
- 20) Relative Signs of Nuclear Spin Coupling Constants: A Refinement of the Double-Irradiation Experiment  
R. Freeman and N. S. Bhacca  
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- 22) Indirect Detection of Weak or Hidden Nuclear Magnetic Resonance Signals  
R. Freeman and W. A. Anderson  
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- 23) Assignment of NMR Spectra with the Aid of Double Quantum Transitions  
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- 26) Nuclear Magnetic Double Resonance. Transmission of Modulation Information through the Nuclear Spin-Spin Coupling  
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- 27) Slow Pulse Modulation in Nuclear Magnetic Double Resonance. Indirect Determination of the NMR Parameters of  $^{13}\text{C}$   
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J. Chem. Phys. 43, 3087 (1965).
- 28) Transient Nutations in Nuclear Magnetic Double Resonance. Assignment of Transitions to an Energy-Level Diagram  
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- 29) Systematic Use of Solvent Effects in High-Resolution Nuclear Magnetic Resonance  
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- 31) Line Profiles in Nuclear Magnetic Double Resonance  
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- 32) Transfer of Fine Structure in Nuclear Magnetic Double Resonance  
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- 33) Detection of Very Small NMR Spin Coupling Constants by Resolution Enhancement  
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- 35) Localized Saturation Effects in Nuclear Magnetic Double Resonance  
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- 36) New Techniques in High Resolution NMR  
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- 37) Relaxation Measurements in High Resolution NMR  
R. Freeman and S. Wittekoek  
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- 38) Selective Determination of Relaxation Times in High Resolution NMR  
R. Freeman and S. Wittekoek  
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- 39) High Resolution Studies of Nuclear Spin-Lattice Relaxation Times  
R. Freeman and H. D. W. Hill  
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- 40) High Resolution Nuclear Magnetic Resonance by Fourier Transformation  
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- 43) Spin-Lattice Relaxation of High Resolution NMR Spectra of Carbon-13  
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- 48) Fourier Transform Study of Nuclear Spin-Spin Relaxation  
R. Freeman and H. D. W. Hill  
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- 49) Nuclear Overhauser Effect in Undecoupled NMR Spectra of Carbon-13  
R. Freeman and H. D. W. Hill  
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- 50) Quenching the Nuclear Overhauser Effect in NMR Spectra of Carbon-13  
R. Freeman, K. G. R. Pachler and G. N. LaMar  
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- 51) Fourier Transform NMR  
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- 53) An Adaptive Scheme for Measuring NMR Spin-Lattice Relaxation Times  
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- 55) Carbon-13 T<sub>1</sub> Measurements under Proton-Coupled and Decoupled Conditions  
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- 58) Influence of Cross-Relaxation on NMR Spin-Lattice Relaxation Times  
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- 59) Carbon-13 CIDNP in the Reversible Addition of Pentafluorobenzoyloxy Radicals to Chlorobenzene  
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- 61) Dipolar Contribution to the NMR Spin-Lattice Relaxation of Protons  
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- 62) NMR Study of Transient Complexes in Solution by means of a Motional Anisotropy Probe  
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- 64) A Simple Pulse Sequence for Selective Excitation in Fourier Transform NMR  
G. Bodenhausen, R. Freeman and G. A. Morris  
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- 65) Two-Dimensional J-Spectroscopy: Proton-Coupled Carbon-13 NMR  
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- 66) NMR Instrumentation - Today and Tomorrow  
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- 67) Proton-Coupled Carbon-13 Nuclear Magnetic Resonance Spectra from Individual Carbon Sites in a Molecule: The Rotameric Equilibrium in Menthone  
R. Freeman, G. A. Morris and M. J. T. Robinson  
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- 68) Anisotropic Molecular Motion of Nitrobenzene Dissolved in MBBA  
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- 70) A Simple Approach to Single Channel Quadrature Detection  
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- 71) Double Fourier Transformation in High Resolution NMR  
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- 72) Proton-Coupled Carbon-13 Spectra in the Presence of Strong Coupling, I  
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- 76) Correlation of Proton and Carbon-13 NMR Spectra by Heteronuclear Two-Dimensional Spectroscopy  
G. Bodenhausen and R. Freeman  
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- 77) Correlation of Chemical Shifts of Protons and Carbon-13  
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- 78) Assignment of Carbon-13 NMR Spectra by 'J-Scaling'  
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- 79) Selective Excitation in Fourier Transform Nuclear Magnetic Resonance  
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- 81) Carbon-Carbon Spin-Spin Coupling Studied by Two-Dimensional Fourier Transformation  
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- 105) Compensation for Pulse Imperfections in NMR Spin-Echo Experiments  
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- 109) Suppression of Artifacts in Two-Dimensional J-Spectra  
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- 110) Composite Pulse Decoupling  
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- 119) A Simple Scheme for Determining Multiplicity in Carbon-13 NMR Spectra  
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