1. Dickinson, W. C. “The Time Average Magnetic Field at the Nucleus in Nuclear Magnetic Resonance Experiments,” *Phys. Rev*, **1951**, *81(5)*, 717-731.

The underling physics of magnetism is outlined for NMR. Evans referred to this paper to derive his equations. Importantly, this paper introduces the a term (the shape term) in the effective magnetic field felt at a point.

1. Bothner-By, A. A. and Glick, R. E. “Medium Effects in Nuclear Magnetic Resonance Spectra of Liquids. II. Simple Aliphatic Molecules,” *J. Chem. Phys.,* **1957**, *26*, 1647. DOI: 10.1063/1.1743598

A paper that describes bulk diamagnetic solvent effects on chemical shift.

1. Zimmerman, J. R. and Foster, M. R. “Standardization of N.M.R. High Resolution Spectra,” *J. Phys. Chem.*, **1957**, *61(3)*, 282.

A paper that describes the use of external standards in NMR; the background section has a good description of the various geometrical considerations and the resulting effect on the field felt by the sample.

1. Evans, D. F. “Anomalous Solvent Shifts in High-resolution Nuclear Magnetic Resonance Spectra,” *Proc. Chem. Soc. (London),* **1958**, 115.

The first of 2 early papers by Evans where he developed the method for determining magnetic susceptibility by NMR. This paper describes diamagnetic solvent shifts.

1. Evans, D. F. “The Determination of theParamagnetic Susceptibility ofSubstances in Solution by Nuclear Magnetic Resonance,*” J. Chem. Soc*., **1959**, 2003.

The second of 2 early papers by Evans where he developed the method. Most other sources point back to this one as the derivation of the technique. This paper describes paramagnetic solvent shifts.

1. Frei, K and Bernstein, H. J. “Method for Determining Magnetic Susceptibilities by NMR,” *J. Chem. Phys.*, **1962**, *37*, 1891. DOI: 10.1063/1.1733393

An early paper that includes both a cylindrical reference AND a spherical reference tube in order to simultaneously solve for diamagnetic solvent effects and paramagnetic sample effects on chemical shift.

1. Bartle, K. D., Jones, D. W. and Maričić, S. “The Determination of Paramagnetic Susceptibilities by High-resolution Nuclear Magnetic Resonance,” *Croat. Chem. Acta,* **1968**, *40*, 227.

Another relatively easy to read derivation of the mathematics involved in the field felt by a molecule in a magnetic field; the paper demonstrates and reviews several different methods for determining magnetic susceptibility by NMR.

1. Live, D. H., and Chan, S. I. “Bulk Susceptibility Corrections in Nuclear Magnetic Resonance Experiments using Superconducting Solenoids,” *Anal. Chem.*, **1970**, *42(7)*, 791-792.

This article gives experimental evidence showing the negative 2x difference (twice in magnitude and negative sign of the shift) for data collected both on a permanent perpendicular magnet vs. a superconducting coaxial magnet. Several spectra are shown, and equations relating chemical shift and magnetic susceptibility are derived. The article also gives evidence for bulk diamagnetic shift changes for TMS in CHCl3 vs. neat TMS.

1. Crawford, T. H. and Swanson, J. “Temperature Dependent Magnetic Measurements and Structural Equilibria in Solution,” *J. Chem. Ed.,* **1971**, *48*, 382.

This paper describes measuring temperature dependence of magnetic susceptibility and clearly explains the derivation and use of Evans equations.

1. Ostfeld, D. and Cohen, I. A. “A Cautionary Note on the Use of the Evans Method for Magnetic Measurements,” *J. Chem. Ed.*, **1972**, *49*, 829.

A paper that cautions against measuring temperature dependence of magnetic susceptibility unless solvent density corrections are applied. Most other papers recommend ignoring the density correction.

1. Hoppeé, J. I. “Effective Magnetic Moment,” *J. Chem. Educ.*, **1972**, *49(7)*, 505.

This short article derives the units for mu-effective, showing it to be unitless, and recommends it be called the Bohr Magneton number.

1. Phillips, W. D. and Poe, M. “Contact Shifts and Magnetic Susceptibilities in Iron-Sulfur Proteins as Determined from Nuclear Magnetic Resonance Spectra,” *Methods Enzymol.,* **1972**, *24*, 304-17.

A very easy to follow introduction to magnetism and the Evans method written for a biological field; interestingly, includes detailed measurements of the Fe4S4 cluster in rubredoxin.

1. Schubert, E. M. “Utilizing the Evans Method with a Superconducting NMR Spectrometer in the Undergraduate Laboratory,” *J. Chem. Educ.*, **1992**, *69(1)*, 62.

This article clarifies the changes in the equations when using high-field NMR instruments for Evans method determination in the undergraduate laboratory. Specifically, the negative two-fold negative difference in shift is shown. The paper also emphasizes that for very careful work, you should consider magnetic susceptibility of the solvent; the original paper by Evans showed this.

1. Hatscher, S., Schilder, H., Lueken, H. and Urland, W. “Practical Guide to Measurement and Interpretation of Magnetic Properties,” *Pure Appl. Chem.*, **2005**, *77(2)*, 497–511. DOI: 10.1351/pac200577020497

This article gives guidelines for measurement and analysis of data, including a comparison of SI and CGS-emu units. While aimed at SQUID magnetometer usage, some of the units and definitions are handy and useful for other applications.

1. Bain, G. A. and Berry, J. F. “Diamagnetic Corrections and Pascal’s Constants,” *J. Chem. Educ*., **2008**, *85(4)*, 532-536.

This is a comprehensive list of diamagnetic correction factors used to correct the observed signal due to the unpaired electrons for the underlying diamagnetism of most of the electrons in the sample.