Introduction

Chapter 1

Goto

This manual is intended for use with the AVANCE series of spectrometers, including the DMX, DRX, and DPX, and is written based on XWIN-NMR software version xwin-nmr1.1.1 and BSMS firmware version 940614. It covers the preparation, acquisition, and processing of several basic 1D and 2D experiments.

In general, later chapters of this manual assume information discussed in earlier chapters.

Unless otherwise specified, statements such as "click on **calib**" mean to move the cursor on top of the **calib** button on the screen, and click with the left-hand mouse button. Consider the left-hand mouse button the default; if another button is required, it will be explicitly stated.

Commands such as "Enter **zg**" mean to type zg followed by a return on the keyboard.

Words written in bold Helvetica font, e.g., **acqu**, refer to buttons or pulldown menus on the screen (items that can be selected with the mouse).

Words written in bold Courier font, e.g., **edsp**, refer to commands that can be typed in at the keyboard.

In several chapters, a list of references is included for those users who are interested in learning more about the particular experiment. These lists include only a few relevant references and are by no means meant to be complete.

We recommend to set the user interface for XWIN-NMR to the mode 'extended'. This can be done with the XWIN-NMR command **setres**. Otherwise, some of the features described in this manual would not be available.

An Important Note on Power Levels

Several places throughout this manual, the user is asked to set the power levels **pl1**, **pl3**, etc. to the "high power" level for the corresponding channel (f1 or f2). ***In order to avoid damaging the probehead***, the user is advised to use the power levels indicated below in Table 1. Note that these "power levels" are really attenuation levels, and so a higher value corresponds to a lower power. Also note that these power levels pertain ***only*** to the specific spectrometers and amplifiers listed below, which correspond to standard AVANCE instruments as of July 1994.

Table 1. Suggested "High Power" Levels for DMX, DRX, and DPX Spectrometers

Nucleus	Spectrometer	Amplifier	Power Level
^{1}H	DMX	BLARH100	Š +3dB
	DRX	BLAXH40	= –3dB
	DPX	BLAXH20	= –6dB
^{13}C	DMX	BLAX300	Š +3dB
	DRX	BLAXH40	= –3dB
	DPX	BLAXH20	= –6dB