



# Anasazi Instruments

## Our Magnets

Aii has developed both 60MHz (1.4T) and 90MHz (2.1T) magnets and enclosures. These magnets offer built-in vibration damping using isobutylene rubber absorbers so they can be located in vibrationally noisy environments.



## Optional Equipment

Some locations do not have an adequate source of dry air for sample spinning and eject. The Aii dry air source is designed to be a quiet, completely self-enclosed unit that runs on standard power.



# Anasazi Instruments

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## Our philosophy

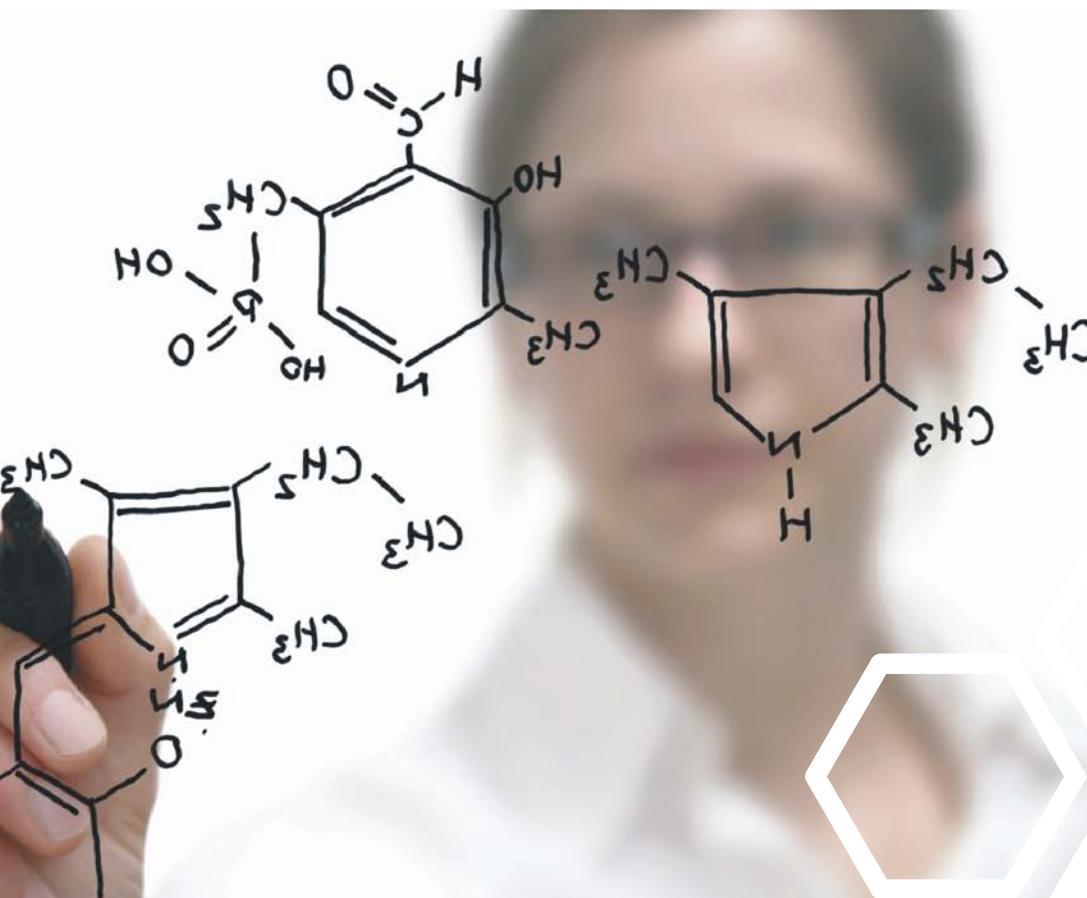
is to position ourselves as your in-house NMR expert. We enthusiastically support our customers to excel in the science of magnetic resonance.

## Our history

has been providing high quality, rugged, and easy-to-use 60 and 90 MHz NMR spectrometers and upgrades to the educational and industrial markets. These instruments have been successfully implemented at hundreds of institutions ranging from large companies and top-tier universities to community colleges throughout North and South America.

In research environments, the Eft is a cost-effective workhorse for synthetic and analytical laboratories. These permanent magnet based FT-NMR spectrometers have applications in industrial labs for quality testing or as a “walk-up” NMR resource. Crucial to the success of the Eft is that over the lifetime of the instrument, the total annual cost is fixed whereas for a supercon based NMR annual costs increase.

In education, the Eft gives thousands of undergraduates the hands-on opportunity to learn to acquire and analyze FT-NMR data. Additionally, the wide appeal of the Eft spectrometer is due to the ease of obtaining high quality NMR spectra on an instrument that does not require cryogens and has minimal maintenance requirements.



## Eft Advantages

- Very low cost of maintenance
- Easy to use for students
- Workhorse instrument for routine use
- Maximum value for customer



## Configurations and Experiments

Many popular NMR experiments are supported for routine use, chemical structure determination and quantitative analysis.

### Base $^1\text{H}$ NMR instrument:

- $^1\text{H}$  and two-dimensional COSY spectra
- Solvent suppression
- Inversion recovery ( $T_1$ ) and CPMG ( $T_2$ ) relaxation
- Kinetics
- Block Averaging with Peak Registration

### Option 1, two channel $^1\text{H}/^{13}\text{C}$ :

- $^{13}\text{C}$  spectra
- Two-dimensional  $\{^1\text{H}\}-^{13}\text{C}$  HETCOR spectra
- CH multiplicity spectra via DEPT

### Option 2, two channel $^1\text{H}, ^{19}\text{F}$ and multinuclear:

- For a list of observable nuclei, go to <http://www.aiinmr.com/wp-content/uploads/Eft-nuclei.pdf>

## No Lock...No Problem

The Eft spectrometer does not have a frequency lock, but long term acquisitions are still possible using a method we've coined, BAPR (Block Average with Peak Registration). By dividing the acquisition into smaller blocks, each block is short enough that data quality is not reduced due to long term drift.



## The Digital Generation

Our new 3<sup>rd</sup> generation Eft uses the USB interface to connect the computer and spectrometer, making the set-up simpler. The new digital spectrometer consumes less power and improves the quality of spectra.

