



Nuclear Magnetic Resonance (NMR) Spectroscopy Data Recovery Method & Apparatus

Description

To date NMR spectroscopists have had to use half spin echo and accept the poor signal to noise ratio (SNR) and spectral resolution available from the half spin-echo signal. Researchers from the University's renowned Center for Magnetic Resonance Research (CMRR) have developed a novel method to improve the quality of NMR by acquiring more half echo data. Using an iterative numerical method to reconstruct missing data points of the corresponding full symmetrical echo data, allowing for a better-quality NMR spectrum with sharper peaks. The technique is advantageous at higher fields.

Features/Benefits

- Apparatus and method allow for the spectrum to be obtained automatically and displayed in absolute display mode free of errors
- Improved baseline allows more resonance peaks to emerge from the region close to the water peak
- High resolution at high magnetic fields
- Issued patent claims include NMR software and hardware

Technology Status

The method has been fully tested and proven for accuracy.

IP Status

- Issued US Patents 6,400,50 and 6,639,405.
- Pending patent applications in Canada and the EU.

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