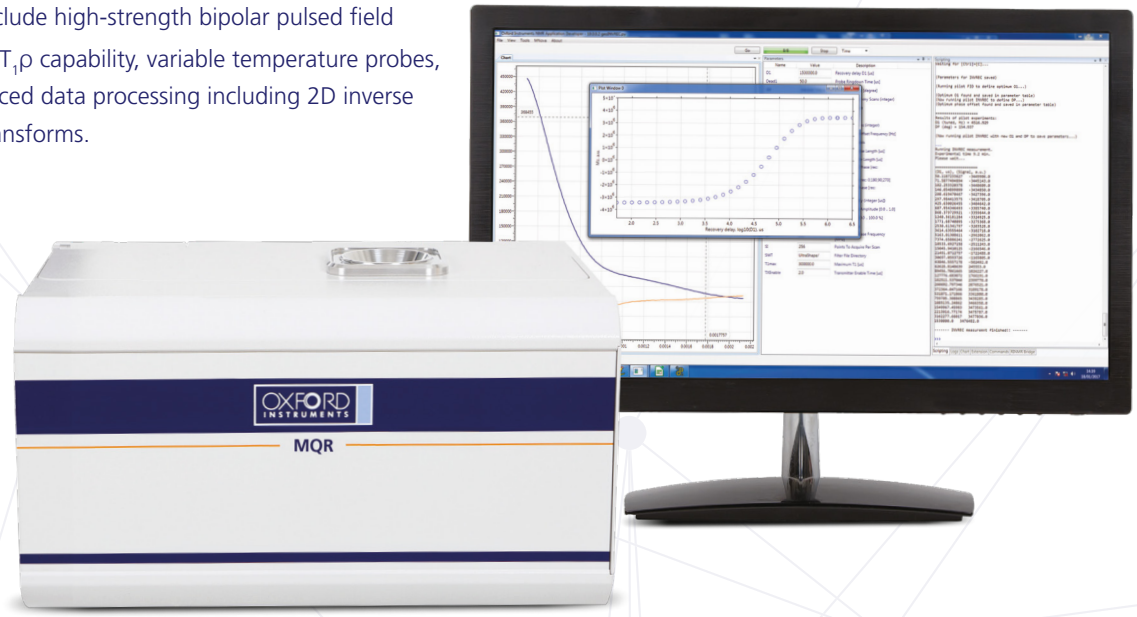
MQR Research NMR

The **MQR** is a low resolution, high performance TD-NMR research system designed for applications based on relaxation and/or diffusion measurements. The system includes a high performance digital spectrometer, 20MHz (0.47T) permanent magnet, and a choice of interchangeable 10, 18 and 26mm probes.

The **MQR** is supplied with the Application Developer software package - a fully integrated development environment that allows users to write pulse sequences, set parameters, run and debug sequences, and visualize the results. Shaped RF and shaped gradient pulses can be included, and calculations can be embedded in the pulse sequences. An editable library of common pulse sequences is provided, as well as a basic data analysis software package that includes simple curve fitting and 1D Inverse Laplace transforms. Additional options include high-strength bipolar pulsed field gradients, $T_1\rho$ capability, variable temperature probes, and advanced data processing including 2D inverse Laplace transforms.

- 20MHz TD-NMR research system
- High performance digital spectrometer
- T_1, $T_1\rho$, T_2, and diffusion measurements
- Pulsed field gradients and VT probe options
- Data analysis options including 2D data sets
- User programmable with open data environment



Specifications:

Operating frequency	20MHz (0.47T field)
Probe sizes (diameter)	10mm, 18mm, 26mm
Probe deadtime	<5µs (10mm probe); <8µs (18mm probe); <12µs (26mm probe)
P90 (10mm probe)	<3µs
Data sampling rate	Dependent on filters, typically 16MHz/16 bit
Data point capacity	>256k
RF power	250W
RF duty cycle	20%; 40% optional for $T_1\rho$
Pulsed field gradients	Up to 350G/cm (depending on probe)
Available pulse sequences	FID, CPMG, T_1 inversion recovery, $T_1\rho$ saturation recovery, solid echo, FID/Hahn, 1-D profile (requires gradients), diffusion (requires gradients)
Liquid-controlled variable temperature probe	10mm or 18mm, -10°C to +80°C (requires additional equipment)
Gas-controlled variable temperature probe	10mm or 18mm, -30°C to +150°C (requires additional equipment, and depends on the temperature of the incoming gas)

Contact us today for more information

Visit **nmr.oxinst.com/mqr** or email **magres@oxinst.com**

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