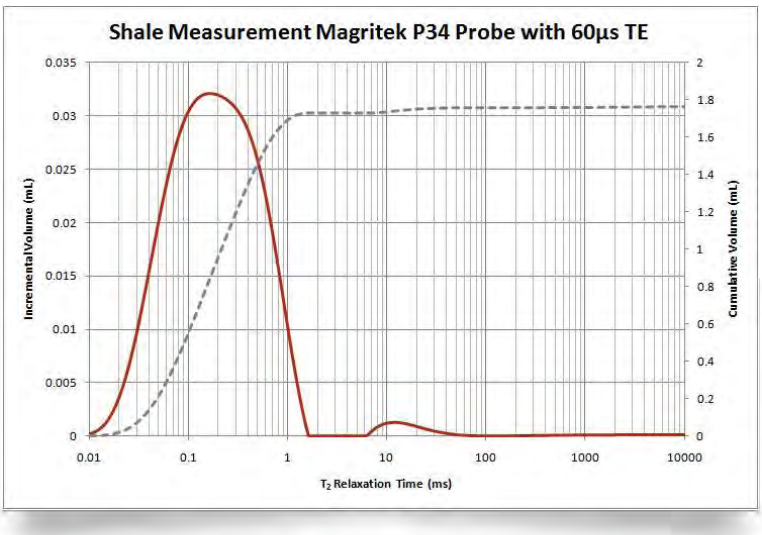
2MHz
NMR Rock Core Analyzer

www.magritek.com/rca

Magritek NMR Rock Core Analyzer
High Resolution and Fast



NEW!

New probe for shales and tight rocks with 60µs TE

The new P34 **high resolution 60 µs TE** (echo time) probe provides measurement capability not previously available on 2 MHz NMR rock core analyzers. The P34 probe is ideal for measurements of shales and tight rocks where critical information lies in T_2 values below 1 ms.

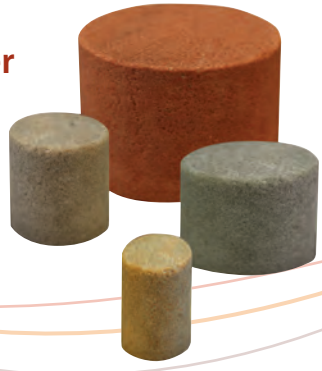
Measurements in minutes

Magritek's industry leading Q-switch probes have a very high signal-to-noise ratios, enabling measurements to be made in a very short time. Even low porosity samples can now be analyzed in a matter of minutes.

Mancos Shale					
Probe	TE	Acquisition time	# scans	SNR	Fluid Vol.
P49	100 µs	1 minute	56	206	3.8 ml

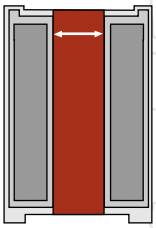
Measure cores with a wide range of diameters in the same analyzer

The Magritek NMR Rock Core Analyzer accepts a wide range of **interchangeable probes**, fitting sample diameters from **under 1" up to full 4" cores**. Additional options include overburden systems for high pressure and temperature, and strong, fast gradients for advanced measurements.



Measure cores with a wide range of diameters in the same analyzer

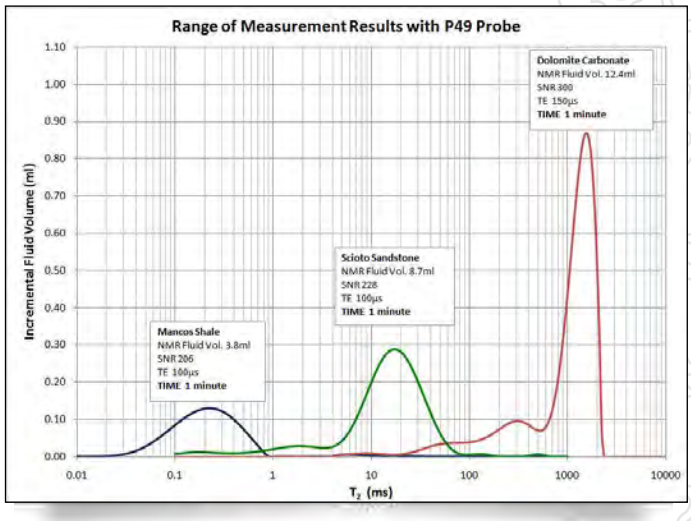
The Magritek NMR Rock Core Analyzer incorporates a modern Halbach magnet providing a large clear bore (~120 mm) with excellent field uniformity. This large clear bore means that cores with a wide range of diameters can be measured in the same analyzer by using the five interchangeable probes listed below. With the additional option of overburden or gradients the analyzer is highly flexible. The fully insulated and temperature controlled magnet makes the analyzer very stable over a range of sample or environmental conditions.



P34 probe: high resolution

NEW!

Our new high resolution probe with 60 µs TE (30 µs tau) is ideal for shales and tight rock cores. The 60 µs TE enables improved characterization for T_2 times below 1 ms. It fits up to 1" diameter samples.



P49, P54 and P71 probes: fast measurements

Our Q-switched series of probes provide superior signal-to-noise ratios enabling fast measur ements. Magritek introduced Q-switch probe technology in 2009 setting a new standard for fast measurement probes. These probes enable measurements to be taken in minut es even with low porosity samples.

P108 probe: full 4" core

NEW!

Remarkable but true - with the new P108 probe the same analyzer can now measure full 4" (102 mm) diameter cores up to 100 mm in length.

Application	Probe	Maximum Sample diameter	Gradient	Overburden
Shales and tight cores	P34	1"	Yes	No
Standard cores	P49	1.5"		
Advanced measurements with overburden & gradients	P54	50 mm		Yes
	P71	60 mm	No	
Full 4" cores	P108	4"		

Optional gradient

Magritek's gradients are strong (500 mT/m), fast switching, and have very low eddy currents providing the best platform for advanced diffusion and two dimensional measurement methods.

Optional overburden and temperature control

The Magritek NMR Rock Core Analyzer works with most thir d party overburden systems using one of the standard probes. Custom probes are also available for specialized systems.

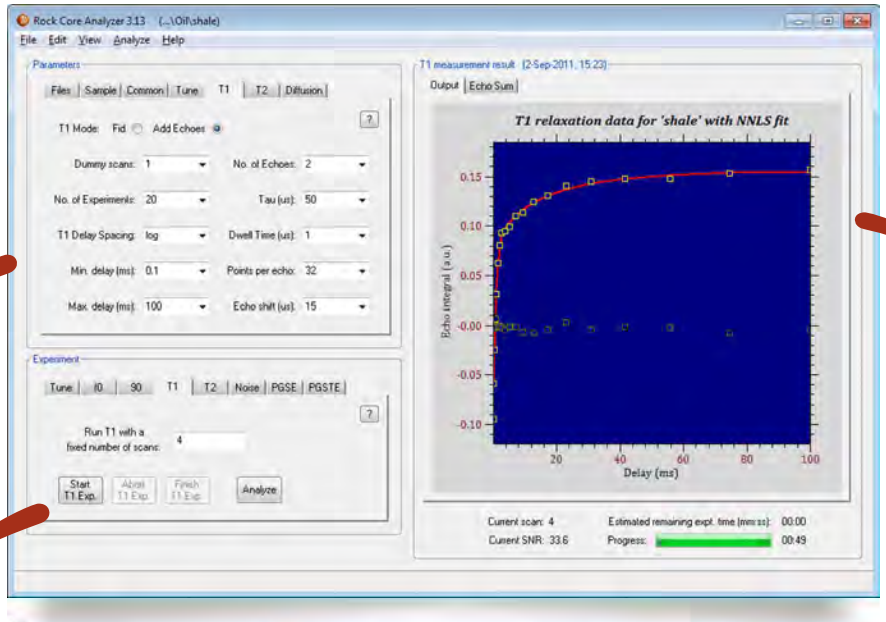
Fully integrated software with every system

FREE!

Magritek's hardware and software are seamlessly integrated - it just works! Magritek's **Dual Mode software** provides the optimal interface for your task. For standard measurements, we provide an interface making routine measurements straightforward. For the research user, the advanced mode provides complete flexibility with control of all parameters including the ability to write your own pulse sequences. The operation is transparent and efficient in both modes.

Standard mode

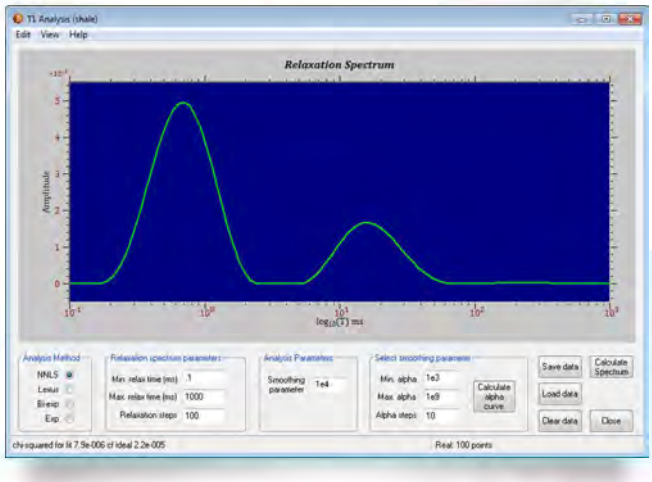
- Stable parameter settings
- Simple interface
- Measurement queuing
- Easy to use



Project information and parameters

Data display

Run measurements and analyze data

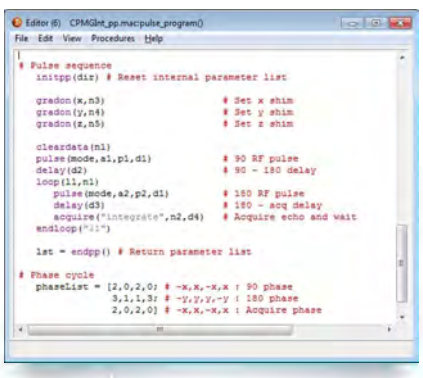


All data easily available in Excel compatible format

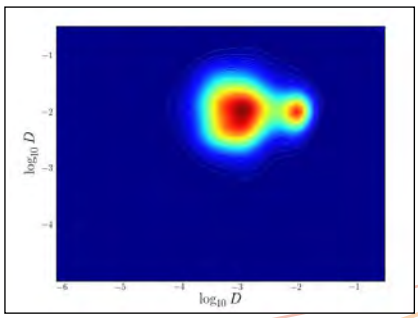
Advanced mode

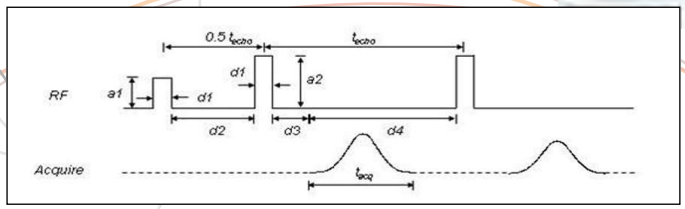
For research applications, the advanced interface provides full control of all experimental parameters and enables the user to write their own pulse sequences for the Magritek NMR Rock Core Analyzer. Make use of an extensive library of built in functions or build your own using simple macro scripting. You can also fully customize the display and interface.

- Write your own pulse sequences
- Write your own macros
- Full display and interface control
- Powerful analysis features
- Full experimental control of all parameters



Pulse programming is based around a simple scripting language which allows for the rapid development of pulse sequences as well as custom user interfaces.





Technical Support & Service

Service and Support

Magritek is committed to providing a range of superior service and support options to meet the different needs of our customers. Contact Magritek for details.

Specifications	
Operating frequency (Proton)	2 MHz
Maximum sample length	100 mm
Maximum sample diameter	102 mm (4")

Standard system components
NMR spectrometer
NMR rock core magnet
Temperature controller
Rock Core Analyzer software

Standard weights and dimensions	
Magnet weight	50 kg (110 lbs)
Magnet height	525 mm (20.6")
Magnet diameter	331 mm (13")
Spectrometer weight	5 kg (11 lbs)
Spectrometer dimensions	360 x 260 x 160 mm (14" x 10" x 2")
Temperature controller weight	3 kg (6.6 lbs)
Temperature controller dimensions	150 x 190 x 270 mm (6" x 7.4" x 10.6")

For further information please contact:

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