

The MicroMR is a NMR imaging and analyzing instrument, with independent pulse sequence generator, RF transmitting and receiving coils, to enhance the signal-to-noise ratio of the NMR signal. The MicroMR includes temperature control for higher accuracy and precision. The operator can modify the pulse parameters for each application. This instrument performs spectrum analysis, and provides two and three dimension images. System is ideal for researching fluid distribution, permeability distribution, multi-phase flow, saturated and unsaturated seepage of materials.

Examples of Applications:

- Rock core analysis (degree of saturation, porosity, hydrocarbon structure)
- Porous media (earth, rock, building materials)
- Organisms (human, animal, plant)

Specifications:

Permanent magnet field strength: : 0.51T
Magnet system frequency: 21MHZ-23MHZ
Magnet distance: 35mm
Homogeneity: 15ppm (10mm X 10mm X 10mm)
Resonance frequency: 21.7MHz
Magnet field stability: 4 hours operation
Magnet temperature control precision: $\pm 0.02^{\circ}\text{C}$ (when temp. in magnet cabinet is stable)
Pulse length adjustment: automatic
Center frequency adjustment: automatic
Probe diameter: 18mm, 25mm
Gradient magnetic field: greater than 1mT/cm in X and Y direction, and greater than 0.6mT/cm in Z direction
Minimum slice thickness: 1mm
Minimum resolution: 0.10mm
Operating system: Windows XP

