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(54) Title: NMR MEASURING SYSTEM

(57) Abstract: An improvement in a magnetic resonance method for determining at least one property of multiple samples (1), including introducing multiple samples (1) into the interrogation zone simultaneously; applying a gradient magnetic field to the interrogation zone (103) wherein different positions within the interrogation zone (103) are sensitive to different specific frequencies; monitoring energy emitted by the samples in the different positions and generating an output signal having a characteristic which is proportional to the energy emitted corresponding thereto in different frequency bands; and, attributing the signals to specific positions and samples (1), and comparing the output signal characteristics of the specific positions and samples (1) with like data obtained from at least one similar sample to provide an indication of the corresponding property of the samples.



WO 2004/104601 A3