Claims

1. Method for extracting information encoded in a result of an NMR measurement, comprising the following steps:

   a) providing a first result of an NMR measurement of a sample containing at least one constituent, wherein the first result is an NMR spectrum of the sample and comprises encoded information on the sample, wherein the encoded information comprises subsets,

   b) providing a second result of an NMR measurement of a calibration sample containing at least one constituent of known concentration, the second result comprising encoded information on the calibration sample,

   c) calculating a conversion factor being indicative for a dependency between the encoded information on the calibration sample and the concentration of the at least one constituent of the calibration sample,

   d) multiplying the first result by the conversion factor,

   e) calculating a validity value for at least one subset of the encoded information of the first result, the validity value indicating whether or not a first subset of the encoded information can be well distinguished from a second subset of the encoded information, wherein the step of calculating the validity value is carried out by defining at least one test criterion chosen from the group consisting of line width, line form and distance to an adjacent line, by applying the test criterion to at least one NMR line of the NMR spectrum of the sample, and by determining how exactly the at least one NMR line of the NMR spectrum of the sample matches the test criterion, and

   f) assigning the validity value to the subset of the encoded information for which it was calculated.

2. Method according to claim 1, **characterized in that** it additionally comprises the following step: generating a list of subsets of information on the sample, comprising a qualitative value for each subset of information in the form of the validity value, and a quantitative value for each subset of encoded information being indicative for a concentration of one of the at least one constituent of the sample.

3. Method according to claim 1 or 2, **characterized in that** the quantitative value is a concentration value in a SI unit.

4. Method according to any of the preceding claims, **characterized in that** each subset of encoded information having a validity value above a pre-defined threshold corresponds to a constituent-specific signal of the first result.

5. Method according to any of the preceding claims, **characterized in that** the at least one constituent of the sample is a constituent, the identity of which is unknown upon obtaining the first result.

6. Method according to any of the preceding claims, **characterized in that** it additionally comprises the following step: identifying the at least one constituent of the sample and assigning the identified constituent to at least one of the subsets of information of the sample.

7. Method according to any of the preceding claims, **characterized in that** the at least one constituent of the sample is a constituent, the concentration of which is unknown upon obtaining the first result.

8. Method according to any of the preceding claims, **characterized in that** the first result is a measured free induction decay or a list of observed NMR signals.

9. Method according to any of the preceding claims, **characterized in that** the first result and the second result are generated on the same NMR device.

10. NMR measuring method, **characterized by** the following steps:

    a) obtaining a calibration result by performing an NMR measurement of a calibration sample by means of an NMR device using specific settings of the NMR device, the calibration sample having a defined and known concentration with respect to at least one constituent,

    b) obtaining a sample result by performing an NMR measurement of a sample by means of the NMR device using the same settings of the NMR device as for obtaining the calibration result, wherein the sample result is an NMR spectrum of the sample,

c) repeating the preceding method step for a plurality of samples,

d) calculating once a conversion factor being indicative for a dependency between the encoded information on the calibration sample and the concentration of the at least one constituent of the calibration sample,

e) performing the following method steps for each of the sample results:

i) multiplying the respective sample result by the conversion factor,

ii) calculating a validity value for at least one subset of the encoded information of the respective sample result, the validity value indicating whether or not a first subset of the encoded information can be well distinguished from a second subset of the encoded information, wherein the step of calculating the validity value is carried out by defining at least one test criterion chosen from the group consisting of line width, line form and distance to an adjacent line, by applying the test criterion to at least one NMR line of the NMR spectrum of the sample, and by determining how exactly the at least one NMR line of the NMR spectrum of the sample matches the test criterion, and

iii) assigning the validity value to the subset of the encoded information for which it was calculated.

11. NMR measuring method according to claim 10, **characterized in that**

a step of obtaining a first control result by performing an NMR measurement of a first control sample by means of the NMR device using the same settings of the NMR device as for obtaining the calibration result, the first control sample having a defined and known concentration with respect to at least one constituent, is performed prior to obtaining the first sample result, and in that

a step of obtaining a second control result by performing an NMR measurement of a second control sample by means of the NMR device using the same settings of the NMR device as for obtaining the calibration result, the second control sample having a defined and known concentration with respect to at least one constituent, is performed after the last sample result was obtained.

12. NMR measuring method according to claim 11, **characterized in that** the calibration sample and at least one of the first control sample and the second control sample have an identical composition.