Furthermore, a third aspect of the present invention provides a method for manufacturing a magnetic substance composed of crystals of a magnetization target compound and an electron acceptor compound, the method comprising: combining the magnetization target compound with the electron acceptor; forming a solution by dissolving a mixture of the magnetization target compound and the electron acceptor in a solvent; maintaining the solution at minus 60 degree Celsius or less~~in a very low temperature state~~ and allowing the solution to deposit the crystals of the magnetic target compound and the electron acceptor; and separating the crystals from the solvent. .

[Advantageous Effects of Invention]

[0012]

According to the present invention, magnetization of the magnetization target compound or enhancement of the magnetic susceptibility of the magnetization target compound can be achieved while maintaining the structure of the magnetization target compound without damaging specific properties of the compound.

[Brief Description of Drawings]

[0013]

[Fig. 1] Fig. 1 shows magnetic field–magnetization curves of magnetic substances according to the present invention;

[Fig. 2] Fig. 2 is a block diagram illustrating the outline of an experiment system that verifies the location of a magnetic substance in a magnetic field;

[Fig. 3] Fig. 3 is a characteristic diagram showing measurement results of changes in the number of cells based on variations of a concentration of the magnetic substance in the magnetic field;

[Fig. 4] Fig. 4 is a graph of MRI measurement results (T1 enhanced signal) of the magnetic substance on a mouse's kidney;

CLAIMS

[Claim 1]

A magnetic substance comprising a metal-salen complex compound as an organometal complex compound and an electron acceptor.

[Claim 2]

The magnetic substance according to claim 1, wherein the electron acceptor is at least one of TCNE, TCNQ, and anthryl derivatives.

[Claim 3]

The magnetic substance according to claim 1 or 2, wherein the metal-salen complex compound and the electron acceptor form a charge transfer complex.

[Claim 4]

The magnetic substance according to claim 3, wherein the charge transfer complex has a crystal structure formed at a very low temperature.

[Claim 5]

The magnetic substance according to claim 4, wherein magnetic susceptibility of the charge transfer complex is higher than magnetic susceptibility of the metal-salen complex compound.

[Claim 6]

A magnetic substance comprising:

a magnetization target compound; and

an electron acceptor;

wherein the magnetization target compound has electrons to be donated to the electron acceptor;

wherein the magnetization target compound and the electron acceptor form multicomponent crystals of a charge transfer complex at a very low temperature; and

wherein magnetic susceptibility of the magnetization target compound is enhanced by donating the electrons to the electron acceptor.

[Claim 7]

The magnetic substance according to claim 6, wherein the magnetization target compound is a metal-salen complex.

CLAIMS

[Claim ~~8~~1]

A method for manufacturing a magnetic substance composed of crystals of a magnetization target compound and an electron acceptor compound, the method comprising:

combining the magnetization target compound with the electron acceptor;

forming a solution by dissolving a mixture of the magnetization target compound and the electron acceptor in a solvent;

maintaining the solution ~~in a very low temperature state~~at minus 60 degree Celsius or less and allowing the solution to deposit the crystals of the magnetic target compound and the electron acceptor; and

separating the crystals from the solvent.

[Claim ~~9~~2]

The method according to claim ~~8~~1, wherein the magnetization target compound is a metal-salen complex compound.

[Claim ~~10~~3]

The method according to claim ~~8~~ 1 or ~~9~~2, wherein the electron acceptor is at least one of TCNE, TCNQ, and anthryl derivatives.

[Claim ~~11~~4]

The method according to any one of claims ~~8~~ 1 to ~~10~~3, wherein the magnetization target compound and the electron acceptor form crystals of a charge transfer complex.