[CLAIMS]

[Claim 1]

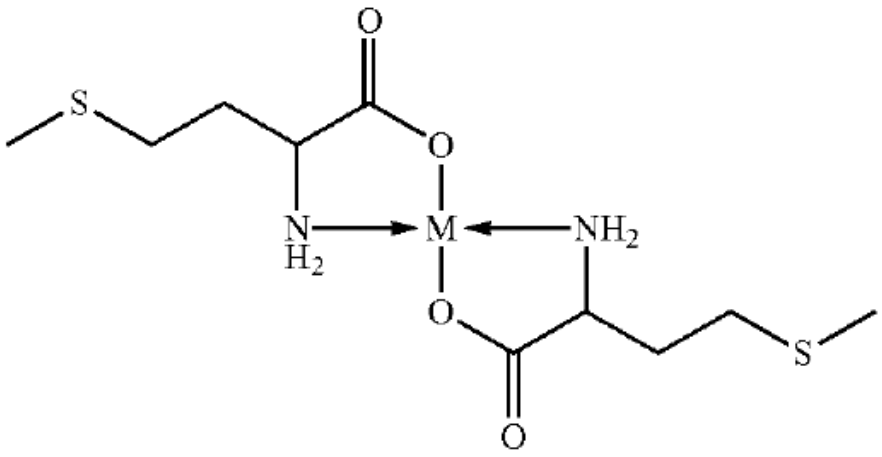
A method for preparing a neutral methionine-metal chelate, comprising:

mixing methionine and $Ca(OH)_2$; and

adding one or more metal chloride salts to the mixture to produce the neutral methionine-metal chelate,

wherein the methionine-metal chelate has structure of Chemical formula 1;

[Chemical formula 1]



wherein M is a metal from the one or more metal chloride salts.

[Claim 2]

The method of claim 1, wherein the methionine is L-methionine or DL-methionine.

[Claim 3]

The method of claim 1, wherein metals in the one or more metal chloride salts are one or more metals selected from the group consisting of copper (Cu), zinc (Zn), manganese (Mn), and iron (Fe).

[Claim 4]

The method of claim 1, wherein the one or more metal chloride salts are added at an equivalence ratio of 0.3 to 3.0.

[Claim 5]

The method of claim 1, further comprising purifying the produced methionine-metal chelate.

[Claim 6]

The method of claim 1, wherein the methionine is used in an aqueous methionine solution, and further comprising drying the methionine-metal chelate.

[Claim 7]

A method for preparing calcium chloride ($CaCl_2$) comprising:

mixing an aqueous methionine solution and $Ca(OH)_2$;

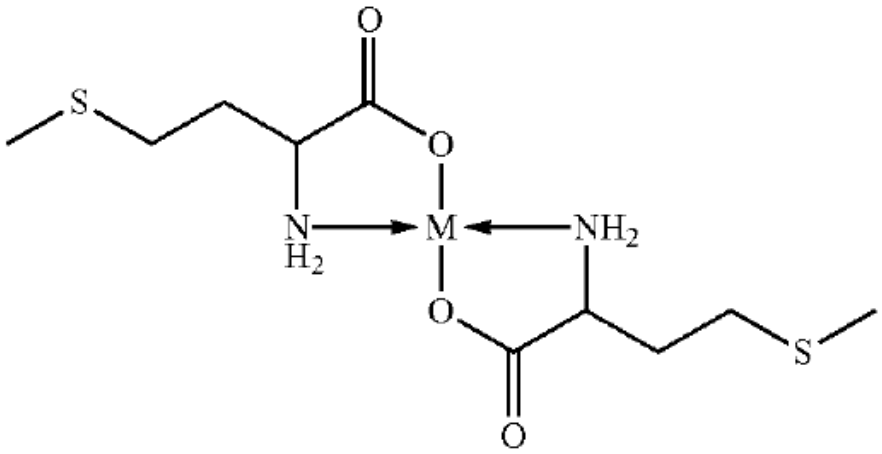
adding one or more metal chloride salts to the mixture to produce a neutral methionine-metal chelate;

separating an aqueous solution comprising the neutral methionine-metal chelate and calcium chloride ($CaCl_2$) via filtration to produce a filtrate from which the neutral methionine-metal chelate has been removed; and

concentrating the filtrate to obtain calcium chloride ($CaCl_2$);

and wherein the neutral methionine-metal chelate has structure of Chemical formula 1;

[Chemical formula 1]



wherein M is a metal from the one or more metal chloride salts.

[Claim 8]

The method of claim 7, wherein metals in the one or more metal chloride salts are one or more metals selected from the group consisting of copper (Cu), zinc (Zn), manganese (Mn), and iron (Fe).

[Claim 9]

The method of claim 7, further comprising granulating the calcium chloride after the concentrating.