Claims

1. A process for the preparation of a metal chelated compound or a salt thereof, comprising the steps of:

a) contacting a liquid composition containing a metal ion component with a solid support, to form a metal chelated support; and

b) contacting said metal chelated support with a liquid composition containing an amino carboxylic chelating agent or a salt thereof,

wherein said metal ion component is selected from organic and inorganic metal salts either in an anhydrous or hydrate form and the metal ion is selected from the group consisting of: a transition metal, a lanthanide, aluminium(III), gallium(III), indium(III), tin(II) and lead(II).

2. The process according to claim 1 further comprising the washing with an aqueous liquid medium of the metal chelated support of step a), before performing step b).

3. The process according to any one of claims 1 or 2, wherein said ion solid support is a cation exchange solid support.

4. The process according to claim 3, wherein the solid support is a resin derivatized with iminodiacetic acid or thiourea functionalities.

~~5. The process according to any one of claims from 1 to 4, wherein the metal ion component is a metal salt or a metal oxide.~~

~~6. The process according to claim 5, wherein the metal ion is selected from the group consisting of: transition metal ions, lanthanide ions, aluminium(III), gallium(III), indium(III), tin(II), lead(II).~~

~~7~~5. The process according to claim ~~6~~ 1 wherein the metal ion is gadolinium (III).

~~8~~6. The process according to ~~any one of~~ claims ~~from 5 to 7~~ 1 wherein the metal ion component is gadolinium acetate.

~~9~~7. The process according to any one of claims from 1 to ~~8~~ 6 wherein the liquid composition in step a) and in step b) is an aqueous solution.

~~10~~8. The process according to claim ~~9~~ 7 wherein the liquid composition is water for injection.

~~11~~9. The process according to any one of claims from 1 to ~~10~~ 8 wherein the pH of the metal salt solution is comprised from 3 to 8.

~~12~~10. The process according to any one of claims from 1 to ~~11~~ 9, wherein the liquid composition containing the amino carboxylic chelating agent or a salt thereof, further comprises meglumine in a molar ratio of 2:1, with respect to the chelating agent.

~~13~~11. The process according to any one of claims from 1 to ~~12~~ 10, wherein the chelating agent is BOPTA or a pharmaceutical acceptable salt thereof.

~~14~~12. The process according to any one of claims from 8 to ~~13~~ 11, for the preparation of gadobenate dimeglumine, comprising the steps of:

a. contacting a solution of gadolinium acetate in water for injection having a concentration of 10-100 mM with an iminodiacetic functionalised resin at a pH of 3-8, to form a gadolinium chelated resin; and

b. contacting said gadolinium chelated resin with a solution of a BOPTA-meglumine salt 1:2 solution with a concentration of 0.1-0.15 M in water for injection.