of carboxylic type, based on a copolymer having active groups in carboxylic form (CO_2H), then in continuously passing the viscous organic solution over said ion-exchange resin.

[0015a] In an aspect, there is provided a method for eliminating metal ions from a viscous organic solution, comprising a solvent or a mixture of organic solvents and a polymer or a mixture of polymers, the viscosity of which at 20°C is between 5 cP and 1000 cP, said method being characterized in that it comprises the steps of placing a macroporous ion-exchange resin in a column, said resin comprising at least one acid resin of carboxylic type, based on a polystyrene divinylbenzene copolymer having active groups in carboxylic form (CO_2H), then in continuously passing the viscous organic solution over said ion-exchange resin.

[0016] Thus, the metals present in the viscous solution are exchanged with the protons of the acid resin, until the content of each of the metals present in solution is less than 100 ppb and preferably less than 10 ppb.

[0017] According to other optional characteristics of the method:

- the resin is entirely composed of an acid resin of carboxylic type, based on a copolymer having active groups in carboxylic form (CO_2H),
- the contact time between the viscous organic solution and the ion-exchange resin is between 1 minute and 12 hours, preferably between 10 minutes and 4 hours,
- the ion-exchange resin has a porosity of between 100 Å and 600 Å,
- the ion-exchange resin has a specific surface area of between 20 and 600 m^2/g,
- the ion-exchange resin has an active group concentration of between 0.7 eq/l and 10eq/l and preferably of between 0.7 eq/l and 5 eq/l,
- the viscosity of the viscous organic solution is between 5 and 1000 cP at 20°C, and even more preferably between 5 and 400 cP at 20°C,
- the viscous organic solution to be decontaminated is brought into contact with the ion-exchange resin at a temperature ranging from 18 à 120°C,
- the viscous organic solution comprises a solvent or a mixture of organic solvents,
- the viscous organic solution also comprises a polymer or a mixture of polymers,

Claims:

1. A method for eliminating metal ions from a viscous organic solution, comprising a solvent or a mixture of organic solvents and a polymer or a mixture of polymers, the viscosity of which at 20°C is between 5 cP and 1000 cP, said method being characterized in that it comprises the steps of placing a macroporous ion-exchange resin in a column, said resin comprising at least one acid resin of carboxylic type, based on a polystyrene divinylbenzene copolymer having active groups in carboxylic form (CO_2H), then in continuously passing the viscous organic solution over said ion-exchange resin.

2. The method as claimed in claim 1, characterized in that the resin is entirely composed of an acid resin of carboxylic type, based on a copolymer having active groups in carboxylic form (CO_2H).

3. The method as claimed in claim 1, characterized in that the contact time between the viscous organic solution and the ion-exchange resin is between 1 minute and 12 hours, preferably between 10 minutes and 4 hours.

4. The method as claimed in claim 1, characterized in that the ion-exchange resin has a porosity of between 100 Å and 600 Å.

5. The method as claimed in one of the preceding claims, characterized in that the ion-exchange resin has a specific surface area of between 20 and 600 m^2/g.

6. The method as claimed in one of the preceding claims, characterized in that the ion-exchange resin has an active group concentration of between 0.7 eq/l and 10eq/l and preferably of between 0.7 eq/l and 5 eq/l.

7. The method as claimed in claim 1, characterized in that the viscosity of the viscous organic solution is between 5 and 400 cP at 20°C.

8. The method as claimed in one of the preceding claims, characterized in that the viscous organic solution to be decontaminated is brought into contact with the ion-exchange resin at a temperature ranging from 18 to 120°C.

9. The method as claimed in any one of the preceding claims, characterized in that at least one other macroporous ion-exchange resin is placed in said column, and in that

said other resin is a basic resin comprising active groups either in amine form, of dimethylamino type, or in quaternary ammonium form.

10. The method as claimed in one of the preceding claims, characterized in that it also comprises pumping the viscous organic solution at the outlet of the column and reinjecting it at the top of the column to cause the viscous organic solution to circulate for several passes over said ion-exchange resin, until a predetermined contact time of between 1 minute and 12 hours, preferably between 10 minutes and 4 hours, is reached.