Claims

1. A method for the isolation of an amine from an aqueous solution thereof, comprising the steps of:
   a) contacting the aqueous solution of the amine with an adsorbent functionalized with carboxyl groups;
   b) removing water from the adsorbent; and
   c) thermally desorbing the amine.

2. The method of claim 1, wherein the amine is an alkanol amine.

3. The method of claim 2, wherein the alkanol amine is ethanolamine.

4. The method of any preceding claim, wherein a washing step is added after contacting the aqueous solution of the amine with an adsorbent functionalized with carboxyl groups

5. The method of any preceding claim, wherein the adsorbent is thermally stable up to at least 150 °C.

6. The method of any preceding claim, wherein the adsorbent has a porous methacrylate matrix.

7. The method of any preceding claim, wherein the aqueous solution is a fermentation composition.

8. The method of any preceding claim, wherein the step of removing water comprises flushing out with a compressed nitrogen stream.

9. The method of claim 8, wherein the nitrogen stream for removing water is heated up to at least 70 °C.

10. The method of claim 8, wherein for removing water a container comprising the adsorbent is heated up to at least 80 °C.

11. The method of any preceding claim, wherein the nitrogen stream for desorption of the amine is heated up to at least 100 °C.

12. The method of any preceding claim, wherein for desorption of the amine a container comprising the adsorbent is heated up to at least 120 °C.

13. The method of any preceding claim, wherein the desorbed amine is collected in a cooled condenser.

14. The method of any preceding claim, wherein the method results in the amine having a purity equal to or greater than about 60%, or greater than about 70%, preferably greater than about 80%, even more preferably greater than about 90%, or even more preferably greater than about 95 %.

15. The method of any preceding claim, wherein the yield of purified amine is equal to or greater than about 80% or more, for example equal to or greater than about 85% or even 90%.

16. The method of any preceding claim for the isolation of ethanolamine, wherein the method comprises synthesising ethanolamine by fermenting a carbon source in the presence of an ethanolamine-producing microorganism in order to provide a fermentation composition comprising ethanolamine.