Claims

1. A process for removing an organic compound comprising one or more positive charges from an aqueous solution, the process comprising:

providing the aqueous solution comprising the organic compound and a hydrophobic organic solution comprising a liquid cation exchanger, wherein the liquid cation exchanger is a hydrophobic fatty acid but not a fatty acid ester,

after the providing, contacting the aqueous solution and the hydrophobic organic solution, and

separating off the hydrophobic organic solution from the aqueous solution,

wherein the organic compound comprises at least two amino groups and no negatively charged functional group,

wherein the organic compound is a compound of the Formula $H_2N - (CH_2)_x - NH_2$, and x is 1 to 20; or wherein the organic compound is a cyclic sugar comprising at least two amino groups, and wherein the process does not employ a membrane.

2. The process according to Claim 1, wherein a temperature of the contacting is from 28 to 70°C.

3. The process according to Claims 1 or 2, where a pH of the contacting is from 6 to 8.

4. The process according to any one of Claims 1 to 3, wherein a quantitative ratio of the liquid cation exchanger to the organic compound is at least 1.

5. The process according to any one of Claims 1 to 4, wherein a volume ratio of the hydrophobic organic solution to the aqueous solution is from 1:10 to 10:1.

6. The process according to any one of Claims 1 to 5, wherein the liquid cation exchanger is a fatty acid comprising more than 12 carbon atoms.

7. The process according to any one of Claims 1 to 6, wherein the liquid cation exchanger is an unsaturated fatty acid.

8. The process according to any one of Claims 1 to 7, wherein the aqueous solution further comprises a biological agent having a catalytic activity.

9. The process according to Claim 8, wherein the biological agent is a cell.

10. The process according to any one of Claims 1 to 9, wherein the hydrophobic organic solution further comprises an organic solvent.