Claims

1. Continuous process for the production of alpha-hydroxycarboxylic esters by alcoholysis of the corresponding alpha-hydroxycarboxamide, ~~characterized in that~~ wherein

   a) Reactant streams comprising an alpha-hydroxycarboxamide and an alcohol are fed into a pressure reactor containing a heterogeneous catalyst,

   b) this reaction mixture is co-reacted in the pressure reactor at a pressure in the range of 1-100 bar in the liquid phase,

   c) the product mixture resulting from step b) comprising alpha-hydroxycarboxylic ester and also unreacted alpha-hydroxycarboxamide is discharged from the pressure reactor,

   d) the product mixture resulting from c) is depleted in alcohol and ammonia and

   e) the unreacted reactants and also by-products comprising ammonium salts of the corresponding alpha-hydroxycarboxylic acid, present in the product mixture from step d), are recycled to step a),

   and wherein water content in the reactant feed is 0.1-20 wt%.

2. Process according to Claim 1, ~~characterized in that~~ wherein the reaction of the alpha-hydroxycarboxamide is effected using a heterogeneous catalyst based on ZrO_2 and/or Al_2O_3.

3. Process according to Claim 2, ~~characterized in that~~ wherein the ZrO_2 employed is doped with 0.1-20 mol% of Y_2O_3 or La_2O_3 or SiO_2.

4. Process according to Claim 2, ~~characterized in that~~ wherein the Al_2O_3 employed is doped with 0.01-1.2 mol% of BaO.

5. Process according to any one of the preceding claims, ~~characterized in that~~ wherein the molar ratio of alcohol to alpha-hydroxycarboxamide is 1:3 to 20:1.

~~6. Process according to any one of the preceding claims, characterized in that the water content in the reactant feed is 0.1-20 wt%.~~

~~7.~~6. Process according to any one of the preceding claims, ~~characterized in that~~ wherein the by-products in step e) comprise HIBMAm and/or TMO.

~~8. Process according to any one of the preceding claims, characterized in that the reactant streams are co-reacted in a pressure reactor at a pressure in the range of 1-100 bar.~~

~~9.~~7. Process according to any one of the preceding claims, ~~characterized in that~~ wherein the ammonia formed is distilled off at a pressure which is continually kept at greater than 1 bar and less than the pressure in the pressure reactor, without the aid of additional stripping media.

~~10.~~8. Process according to any one of the preceding claims, ~~characterized in that~~ wherein the reaction temperature is increased as a function of the decrease in the degree of conversion.

~~11.~~9. Process according to any one of the preceding claims, ~~characterized in that~~ wherein when pressure reactors are connected in series, the amount of catalyst decreases from reactor to reactor.