is/are carried out at a temperature from 2°C to 80°C, preferably from 4°C to 60°C and most preferably from 5°C to 40°C.

28. The method of any one of the preceding claims, wherein contacting step e) and/or separating step f) and/or contacting step g) and/or contacting step h) is/are carried out at a pH of between 4 and 12, preferably between 5 and 11 and most preferably between 7 and 10.5.

29. The method of any one of the preceding claims, wherein contacting step g) is carried out under pressure of at least 100 Pa, more preferably at least 200 Pa and most preferably at least 300 Pa.

30. The method of any one of the preceding claims, wherein contacting step h) is carried out before and/or during and/or after contacting step g).

31. The method of any one of the preceding claims, wherein separating step f) is carried out by filtration, centrifugation, cycloning, sedimentation or a mixture thereof.

32. The method of any one of the preceding claims, wherein the method further comprises step k) of separating the carbonate salt of the at least one earth alkali metal cation obtained in step g).

33. The method of claim 32, wherein separating step k) is carried out by filtration, centrifugation, cycloning, concentrating, evaporation, sedimentation or a mixture thereof.

34. Use of a regeneratable ion exchange material ~~according to~~ any one of claims 1 to 10 for reducing the amount of CO_2 from a carbon dioxide-containing source.

35. The use of a regeneratable ion exchange material according to claim 34, wherein the regeneratable ion exchange material comprises bentonite.

occurring source of at least one earth alkali metal cation, e.g. fresh hard water.

21. The method of any one of the preceding claims, wherein the at least one source of at least one earth alkali metal cation of step d) is fresh hard water having a hardness of from 5 to 130 °dH (0.89162 to 23.182 mmol/L), preferably from 10 to 60 °dH (1.7832 to 10.699 mmol/L), and most preferably from 14 to 50 °dH (2.4965 to 8.9162 mmol/L).

22. The method of any one of the preceding claims, wherein the at least one earth alkali metal cation of the at least one source of at least one earth alkali metal cation of step d) is selected from magnesium, calcium, strontium and mixtures thereof, preferably calcium.

23. The method of any one of the preceding claims, wherein the at least one source of at least one earth alkali metal cation of step d) comprises the at least one earth alkali metal cation in an amount from 0.1 to 200 mg/1, preferably from 0.5 to 150 mg/1, more preferably from 1 to 100 mg/1, even more preferably from 5 to 75 mg/1 and most preferably from 10 to 50 mg/1.

24. The method of any one of claims 6 to 23, wherein contacting step g) is carried out in that the at least one carbon dioxide-containing source of step b) is introduced into an aqueous solution obtained in step f).

25. The method according to claim 24, wherein the aqueous solution obtained step f) is further contacted with at least one catalyst for enhancing the hydratisation of carbon dioxide.

26. The method according to claim 25, wherein the at least one catalyst for enhancing the hydratisation of carbon dioxide is at least one enzyme, preferably carbonic anhydrase.

27. The method of any one of the preceding claims, wherein contacting step e) and/or separating step f) and/or contacting step g) and/or contacting step h)

is/are carried out at a temperature from 2°C to 80°C, preferably from 4°C to 60°C and most preferably from 5°C to 40°C.

28. The method of any one of the preceding claims, wherein contacting step e) and/or separating step f) and/or contacting step g) and/or contacting step h) is/are carried out at a pH of between 4 and 12, preferably between 5 and 11 and most preferably between 7 and 10.5.

29. The method of any one of the preceding claims, wherein contacting step g) is carried out under pressure of at least 100 Pa, more preferably at least 200 Pa and most preferably at least 300 Pa.

30. The method of any one of the preceding claims, wherein contacting step h) is carried out before and/or during and/or after contacting step g).

31. The method of any one of the preceding claims, wherein separating step f) is carried out by filtration, centrifugation, cycloning, sedimentation or a mixture thereof.

32. The method of any one of the preceding claims, wherein the method further comprises step k) of separating the carbonate salt of the at least one earth alkali metal cation obtained in step g).

33. The method of claim 32, wherein separating step k) is carried out by filtration, centrifugation, cycloning, concentrating, evaporation, sedimentation or a mixture thereof.

34. Use of a regeneratable ion exchange material as defined in any one of claims 1 to 10 for reducing the amount of $C0_2$ from a carbon dioxide-containing source.

35. The use of a regeneratable ion exchange material according to claim 34, wherein the regeneratable ion exchange material comprises bentonite.