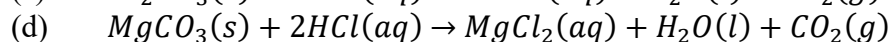
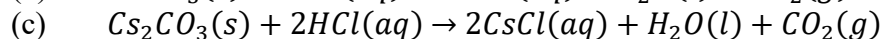
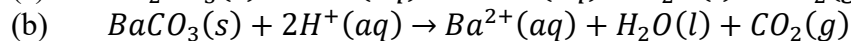
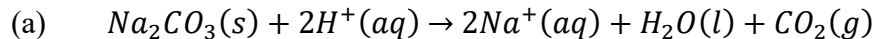


Answers to Exercise 7.2

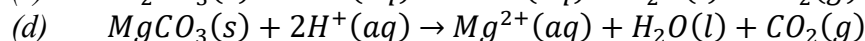
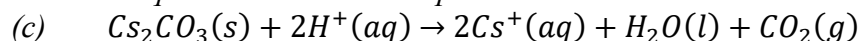
Reactions of Carbonates

1.

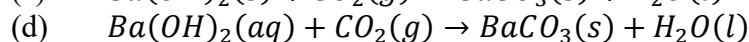
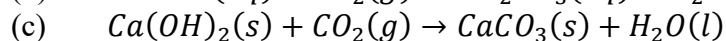
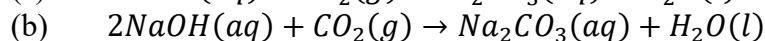
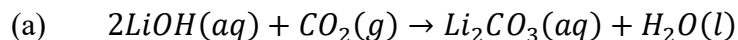


While H_2CO_3 may be formed as an intermediate (when CO_3^{2-} reacts with H^+), it decomposes to give H_2O and CO_2 . Remember the bubbles when the antacid tablet reacted with acid in lab!

Net ionic equations are also acceptable:



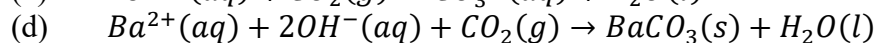
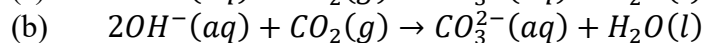
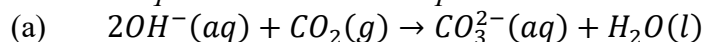
2.



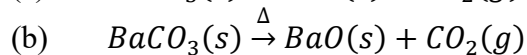
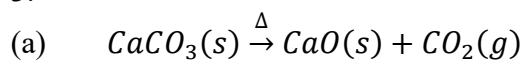
These are effectively the reverse of the reactions in Question 1.

Adding a carbonate to acid gives CO_2 . Adding CO_2 to hydroxide gives a carbonate.

Net ionic equations are also acceptable:



3.



The Δ above the reaction arrow indicates that heat is required for the reaction to proceed.