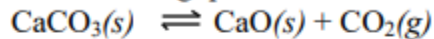


Le Chatelier's Principle – Sample Questions

LeChatelier Practice - Use the following to answer questions 1-3:

The following questions refer to the equilibrium shown here:



1. What would happen to the system if more CaCO_3 were added?
 - A) More CaO would be produced.
 - B) The amount of CaCO_3 would increase.
 - C) The amount of CO_2 would increase.
 - D) The pressure would increase.
 - E) Nothing would happen.
2. What would happen to the system if the total pressure were increased by adding $\text{CO}_2(g)$?
 - A) Nothing would happen.
 - B) More $\text{CO}_2(g)$ would be produced.
 - C) The amount of CaO would increase.
 - D) The amount of CaCO_3 would increase.
 - E) Equilibrium would shift to the right.
3. What would happen to the system if the total pressure were increased by decreasing the volume of the container?
 - A) Nothing would happen.
 - B) More $\text{CO}_2(g)$ would be produced.
 - C) The amount of CaO would increase.
 - D) The amount of CaCO_3 would increase.
 - E) Equilibrium would shift to the right.

Use the following to answer questions 4-7:

Consider the reaction $2\text{H}_2(g) + \text{O}_2(g) \rightleftharpoons 2\text{H}_2\text{O}(g)$ at some equilibrium position. Using the following choices, indicate what will happen if the changes below are made.

- a. shifts to the left
- b. shifts to the right
- c. no change

4. Additional $\text{H}_2\text{O}(g)$ is injected into the reaction vessel.
5. Some $\text{H}_2(g)$ is removed from the reaction vessel.
6. The size of the reaction vessel is decreased.

Answers: 1. X 2. D 3. D 4. A 5. A 6. B