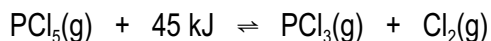


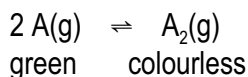
EQUILIBRIUM LESSON-6 QUIZ: LE CHÂTELIER'S PRINCIPLE

Consider the following equilibrium in a closed vessel for questions 1 to 6.



- Adding chlorine gas to the system will . . .
 - shift the equilibrium to the right (toward products).
 - shift the equilibrium to the left (toward reactants).
 - not shift the equilibrium.
- Increasing the temperature of the system will . . .
 - shift the equilibrium to the right (toward products).
 - shift the equilibrium to the left (toward reactants).
 - not shift the equilibrium.
- Increasing the volume of the system will . . .
 - shift the equilibrium to the right (toward products).
 - shift the equilibrium to the left (toward reactants).
 - not shift the equilibrium.
- Adding a catalyst to the system will . . .
 - shift the equilibrium to the right (toward products).
 - shift the equilibrium to the left (toward reactants).
 - not shift the equilibrium.
- Removing phosphorus trichloride, $\text{PCl}_3(\text{g})$, from the system will . . .
 - shift the equilibrium to the right (toward products).
 - shift the equilibrium to the left (toward reactants).
 - not shift the equilibrium.
- Increasing the pressure by injecting inert argon gas will . . .
 - shift the equilibrium to the right (toward products).
 - shift the equilibrium to the left (toward reactants).
 - not shift the equilibrium.

- When heated the following system becomes darker green.



Therefore, the forward reaction must be . . .

- exothermic.
- endothermic.