Marks
8

- The concentration of iron in the ocean is one of the primary factors limiting the growth rates of some basic life forms. Write the chemical equation for the dissolution reaction of $Fe(OH)_3$ in water.

What is the solubility of $Fe(OH)_3$ in mol L^{-1}? K_{sp} $(Fe(OH)_3)$ is 2.8×10^{-39} at 25 °C.

Answer:

Before the Industrial Revolution, the concentration of $OH^-(aq)$ in the oceans was about 1.6×10^{-6} M. What pH corresponds to this concentration at 25 °C?

Answer:

What is the solubility of $Fe(OH)_3$ in mol L^{-1} at this pH?

Answer:

Industrialisation has led to an increase in atmospheric CO_2. Predict the effect that this has had on the amount of $Fe^{3+}(aq)$ in sea water and briefly explain your answer.