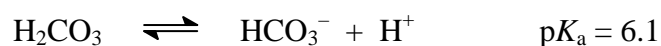


Marks
5

- The primary buffering system in blood plasma is represented by the following equation:



What is the ratio $\text{HCO}_3^- : \text{H}_2\text{CO}_3$ at the normal plasma pH of 7.4?

Answer:

A typical person has 2 L of blood plasma. If such a person were to drink 1 L of soft drink with a pH of 2.5, what would the plasma pH be if it were not buffered? (Assume all of the H^+ from the soft drink is absorbed by the plasma, but the volume of plasma does not increase.)

Answer:

What is the pH in this typical person with a normal HCO_3^- concentration of 0.020 M? Ignore any other contributions to the buffering.

Answer: