

## Question #47788, Chemistry, Inorganic Chemistry

Why does a buffer solution resist the change in pH? Please provide three examples.

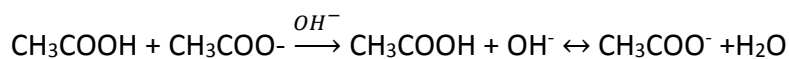
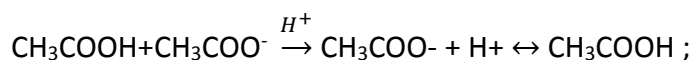
**Answer:**

Buffer solutions - solutions that resist little change in pH by dilution with water or addition of small amounts of strong acids or bases .

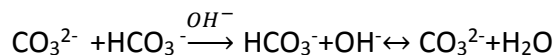
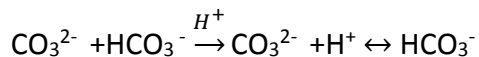
Buffering properties of the solution mixture are weak acids or weak bases and their salts and mixtures of two acid salts or acid salts and secondary polybasic acids.

For example:

1) acetate buffer( CH<sub>3</sub>COOH + CH<sub>3</sub>COONa)



2) (Na<sub>2</sub>CO<sub>3</sub> + NaHCO<sub>3</sub>)



3) Na<sub>2</sub>HPO<sub>4</sub> + Na<sub>2</sub>HPO<sub>4</sub>

