

Answer on Question #71122 – Chemistry – Physical Chemistry

3 acids of pH 3,4,5 respectively are mixed. What will be the concentration of H^+ ion in the mixture.

Solution:

$$\text{pH (acid1)} = 3$$

$$[H^+] = 10^{-\text{pH}} = 10^{-3}$$

$$\text{pH (acid2)} = 4$$

$$[H^+] = 10^{-\text{pH}} = 10^{-4}$$

$$\text{pH(acid3)} = 5$$

$$[H^+] = 10^{-\text{pH}} = 10^{-5}$$

$$[H^+]_{\text{mixture}} = 10^{-3} + 10^{-4} + 10^{-5} = 0.11 \times 10^{-3}$$