

**Answer on Question #72666, Chemistry / General Chemistry :**

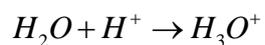
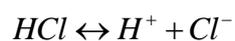
What is the  $H_3O^+$  concentration in a 5 M solution of HCl?

**Solution.**

$$C(HCl) = 0.5M$$

$$C(H_3O^+) = ?$$

Equation:



pH:

$$pH = -\lg(H^+) = -\lg 0.5 = 0.3$$

$$pH = 0.3$$

And:

$$C(HCl) = C(H_3O^+) = 0.5M$$

**Answer:**  $pH = 0.3$ ,  $C(HCl) = C(H_3O^+) = 0.5M$