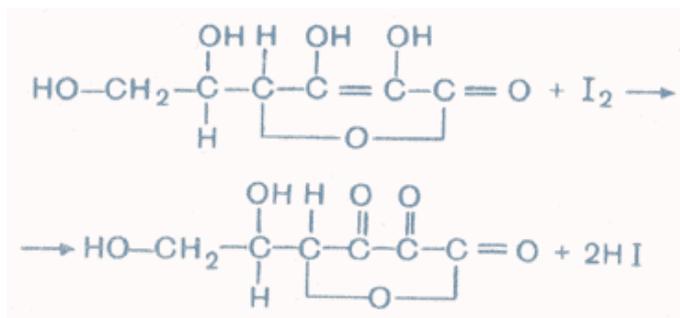


Question #49152, Chemistry, Inorganic Chemistry

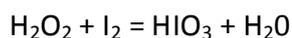
why does the color of a liquid made from vitamin C, hydrogen peroxide, liquid laundry starch turns blue when we add iodine to it?

Answer:

By reacting iodine with vitamin C (ascorbic acid) occurs redox reaction in which iodine oxidizes the double bond in the acid molecule. By the reaction the iodide ion is formed, which is a colorless aqueous solution.



The interaction of hydrogen peroxide with iodine, iodine is oxidised to +5 oxidation state.



HIO₃ is colorless acid.

In a solution of starch iodine gives a blue color because clathrate formed as a result of which the bond in a molecule of iodine lengthened from 0.267 nm → 0.306 nm.