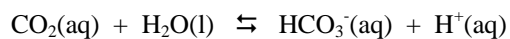


Tutorial 2 Water Chemistry A

1. A BOD test is routinely used for water quality analysis. Detail how the test works and why a simple DO reading is not sufficient to indicate the aerobic properties of the water being tested.

2. Calculate the **pH** of a natural water given that the atmospheric CO₂ concentration at 1atm pressure is 350 ppm, K_H for CO₂ is 3.38 x 10⁻² mol l⁻¹ atm⁻¹ and K_a for the following equilibrium is 4.47 x 10⁻⁷. N.B. the aim is to do it without your Lecture Notes



3. Explain the term **Base Neutralising Capacity**. How does this parameter differ from the pH of a water sample?
4. List the major classes of acids that are found in natural waters and indicate their origin.
5. Seawater is not simply evaporated river water. List the major ions present in both natural waters and comment on the reasons that make the above statement true.