NPTEL Inorganic chemistry of life – *Principles and perspectives*

Week 9 - Assignment 9

W9_01. What is the mode by which CO_2 binds to the zinc center in carbonic anhydrase? Explain as how one establishes this binding mode unambiguously?

W9_02. What happens to human, if *alcohol dehydrogenase* enzyme were not present in their liver? What will be your message!

W9_03. In the family of caboxypeptidase enzymes, what does the term 'carboxy' refer to? In this family there are several enzymes, such as, carboxypeptidase A, carboxypeptidase B and glutamate carboxypeptidase etc. Why so many different enzymes are required, while all are the peptidases? What is the special feature of each of these?

W9_04. Why there are eight electrons and eight protons are involved in case of the enzyme *nitrogenase*. Explain?