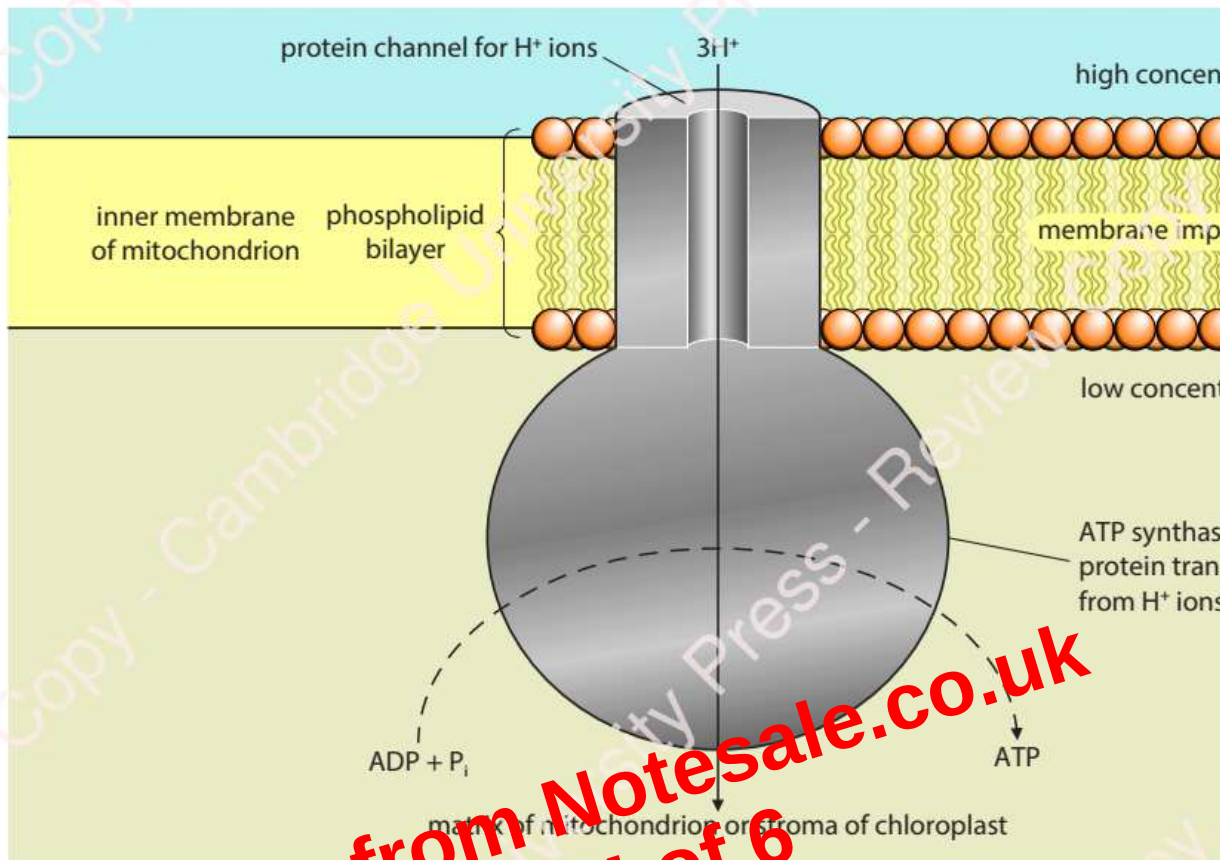




chemiosmosis

- electron transport chain consists of **membrane proteins** that contain electron carriers
- redox reaction first reduced and then oxidized
- NAD FAD are oxidized
- hydrogen split into electron and proton
- proton = hydrogen ion H⁺
- e⁻ passed to carriers and energy is released
- that energy is used to move protons to the intermembrane space and then increases the concentration in the matrix
- protons move by facilitated diffusion down the concentration gradient through channels = ATP synthase
- while passing energy is used to synthesize ATP
- oxygen final acceptor of electron and combines with 4 electrons + 4 protons to form water