ELECTRON TRANSPORT SYSTEM

Electron transport is the process where pairs of hydrogen atoms taken from intermediates of the citric acid cycle, or other reduced substrates, are transfered to **electron carriers** in the **respiratory chain**, and ultimately shuttled to molecular oxygen with the concurrent formation of ATP by **oxidative phosphorylation**.

This process, **respiration**, takes place on the inner membrane of **mitochondria** in eukaryotic cells, or on the inner plasma membrane of prokaryotic cells.

The energy released in the respiratory chain generates a **proton gradient** across the membrane which drives ATP synthesis through **chemiosmotic coupling**.