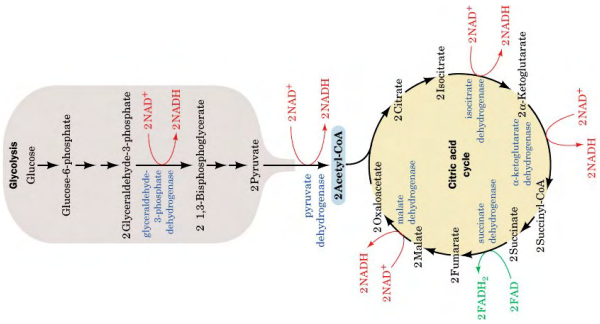
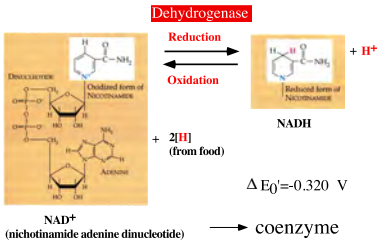
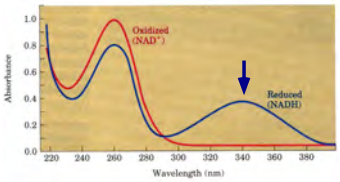


The sites of electron transfer that form NADH and $FADH_2$ in glycolysis and the citric acid cycle.

NAD+ as an electron shuttle



$\Delta E_0' = -0.320$ V



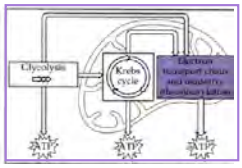
$\Delta G^{0\prime} = -nF\Delta E_0'$

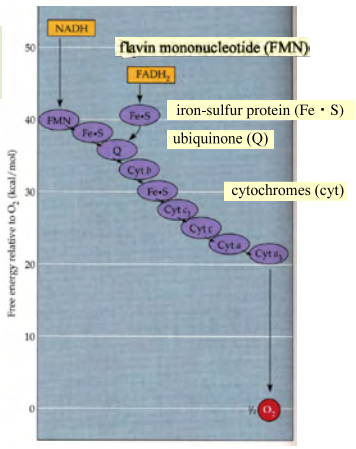
$= -(2\ \text{mol})\ (23.06\ \text{kcal/mol V})\ (-0.320\ \text{V})$

$= 14.8\ \text{kcal/mol}$

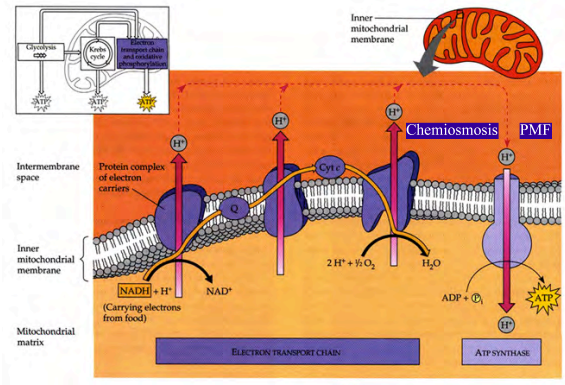
F: Faraday constant
n: number of electrons

electron transport chain

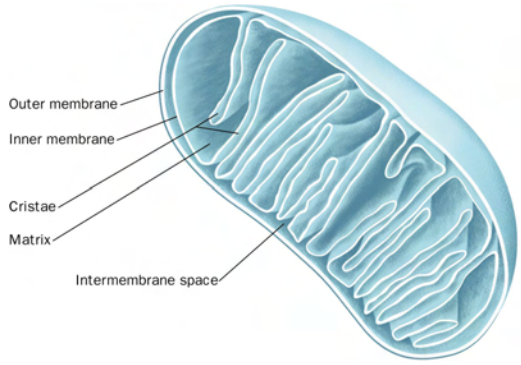




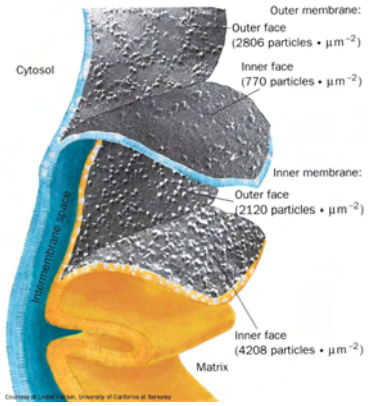
Chemiosmosis: How the mitochondrial membrane couples electron transport to oxidative phosphorylation



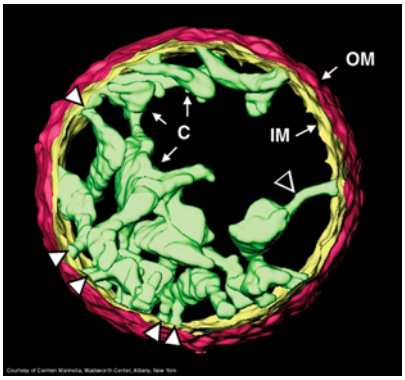
Mitochondria. (*a*) An electron micrograph of an animal mitochondrion.



Mitochondria. (*b*) Cutaway diagram of a mitochondrion.

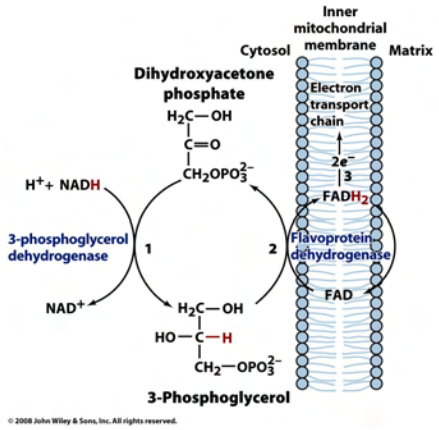


Freeze-fracture and freeze-etch electron micrographs of the inner and outer mitochondrial membranes.



Electron microscopy–based three-dimensional image reconstruction of a rat liver mitochondrion.

The glycerophosphate shuttle.



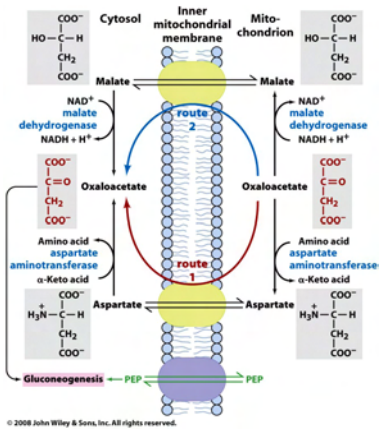
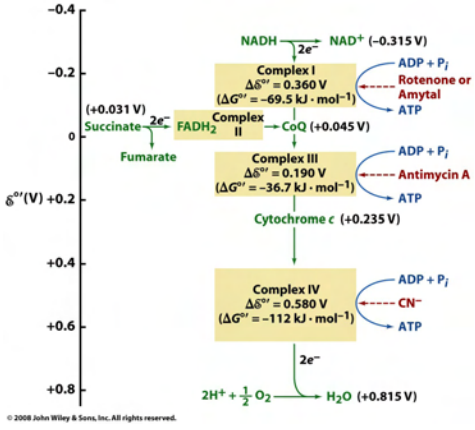
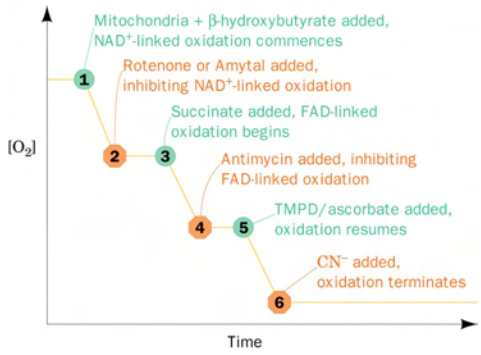


Figure 16-20

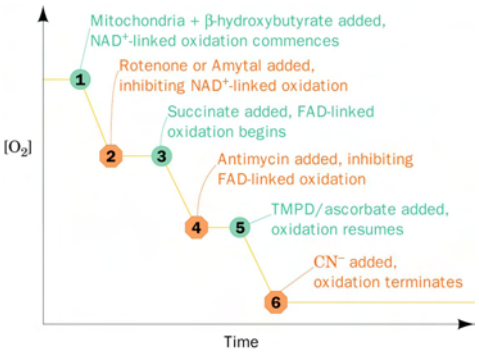
The mitochondrial electron-transport chain.

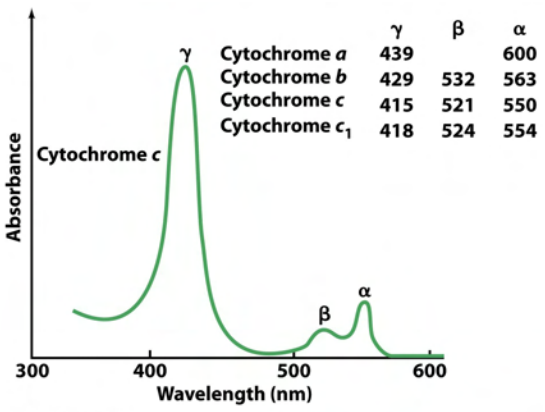


Effect of inhibitors on electron transport.



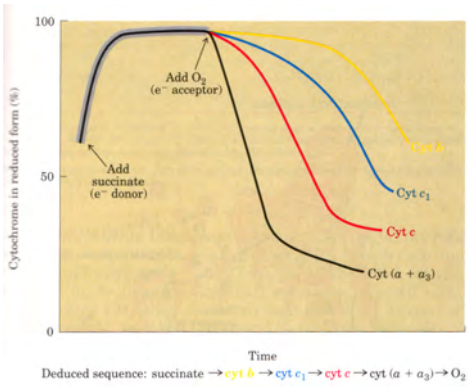
Effect of inhibitors on electron transport.



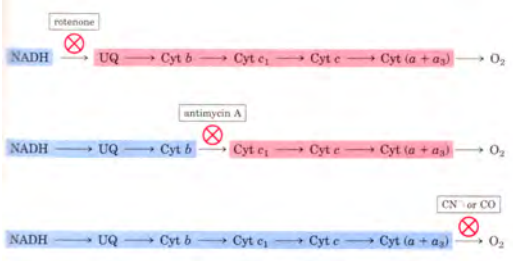


Box 18-1a

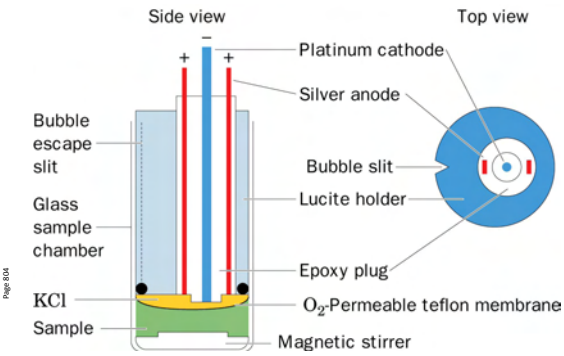
Cytochromeの電子の流れの順序



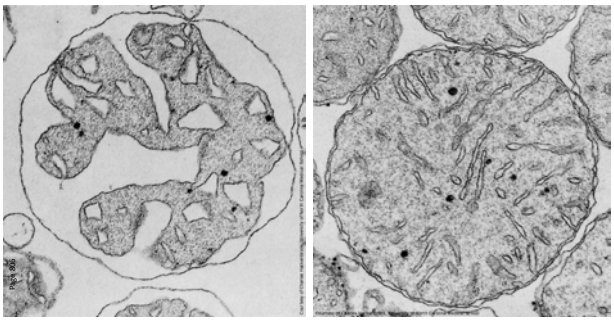
阻害剤と電子の流れ



The oxygen electrode.

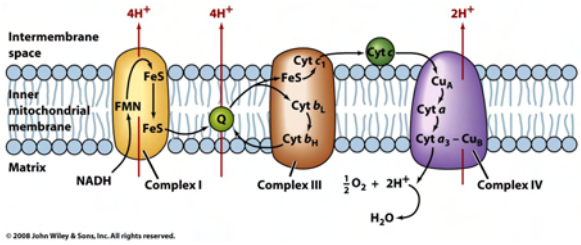


Electron micrographs of mouse liver mitochondria.



(*a*) In the actively respiring state. (*b*) In the resting state.

The mitochondrial electron-transport chain.



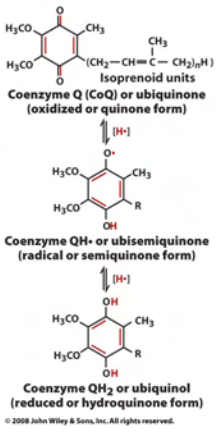
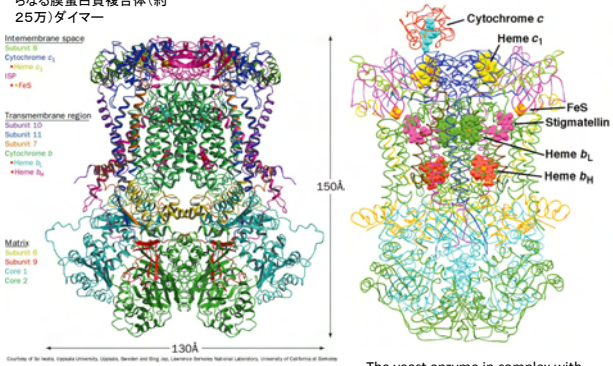


Figure 18-10b

11サブユニット蛋白質からなる膜蛋白質複合体（約25万）ダイマー

X-ray structures of cytochrome bc_1.



The dimeric bovine complex is viewed perpendicular to its 2-fold axis and parallel to the membrane with the matrix below.

The yeast enzyme in complex with cytochrome *c* and the inhibitor stigmatellin viewed with a ~90° rotation about its 2-fold axis.

X-Ray structure of fully oxidized bovine heart cytochrome *c* oxidase.

13サブユニット蛋白質からなる膜蛋白質複合体（約20万）ダイマー