

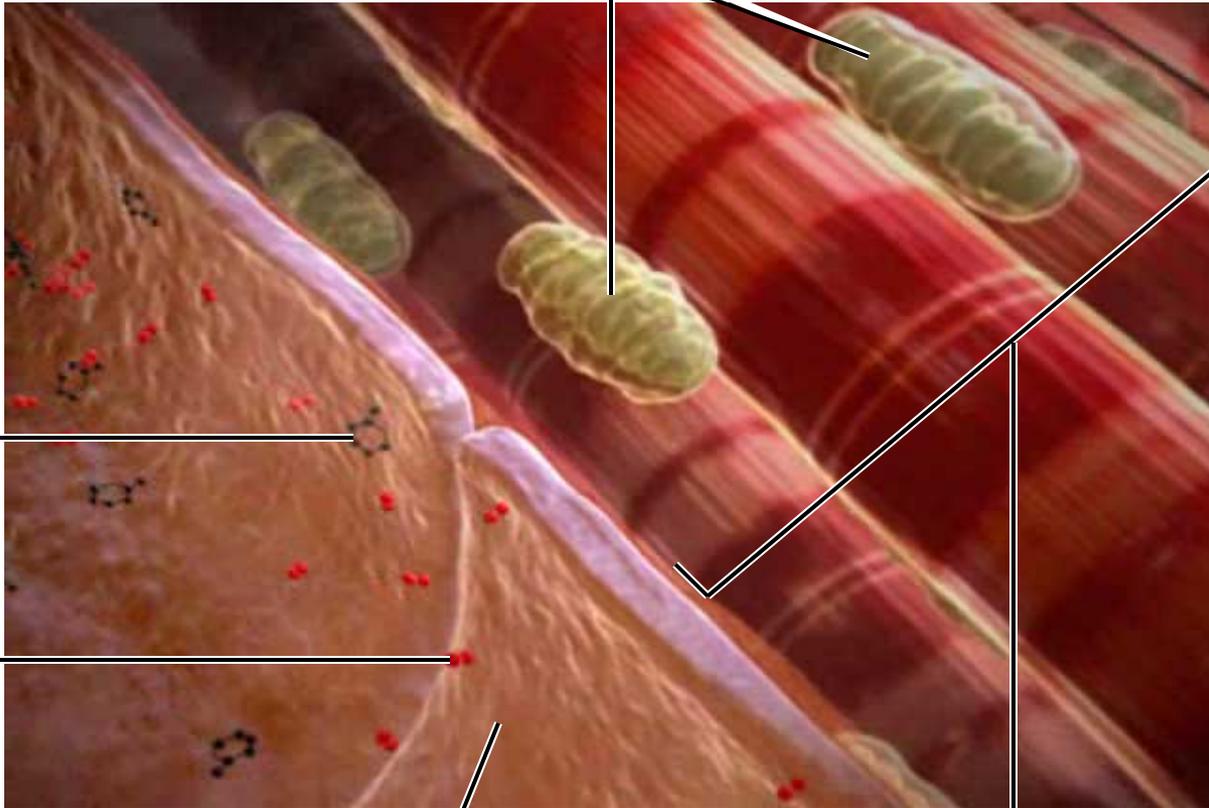
# **BioFlix Animations Cellular Respiration Slide Show**

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Mitochondria



Fuel  
(glucose)

Oxygen  
(O<sub>2</sub>)

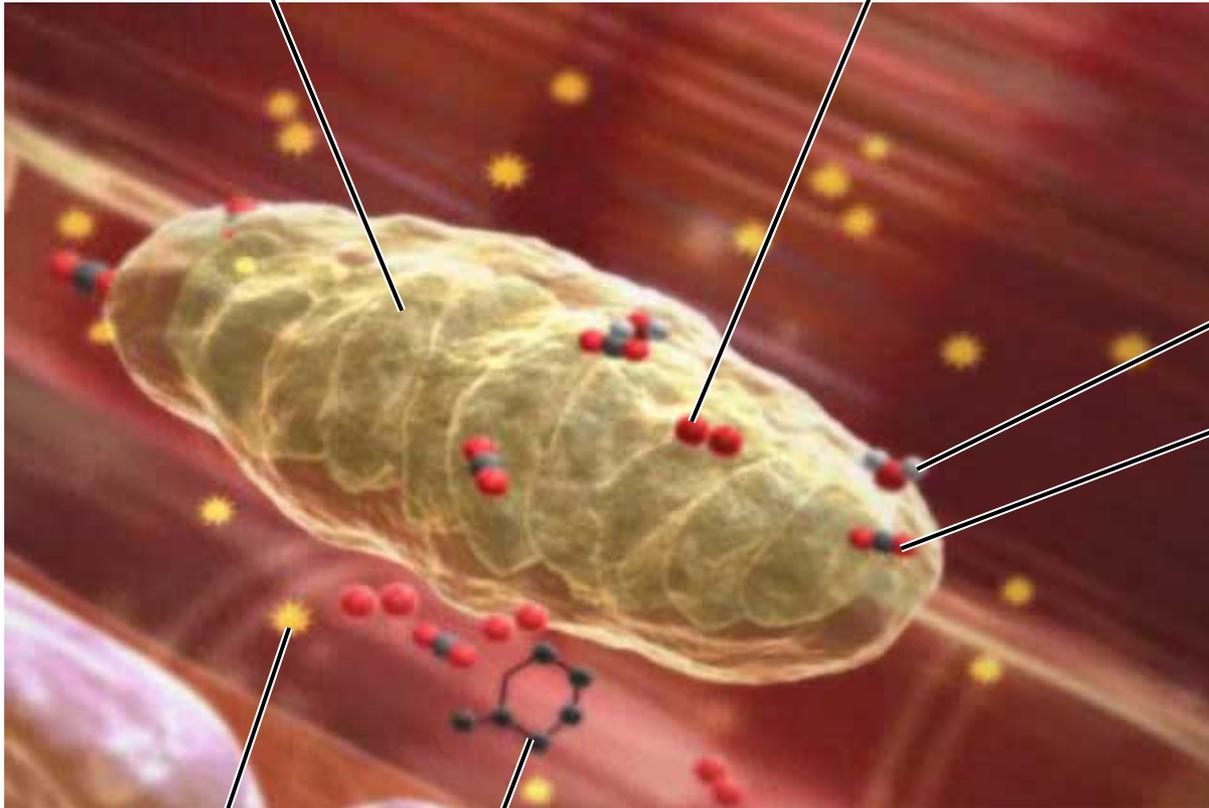
Blood vessel

Muscle cell



Mitochondrion

Oxygen



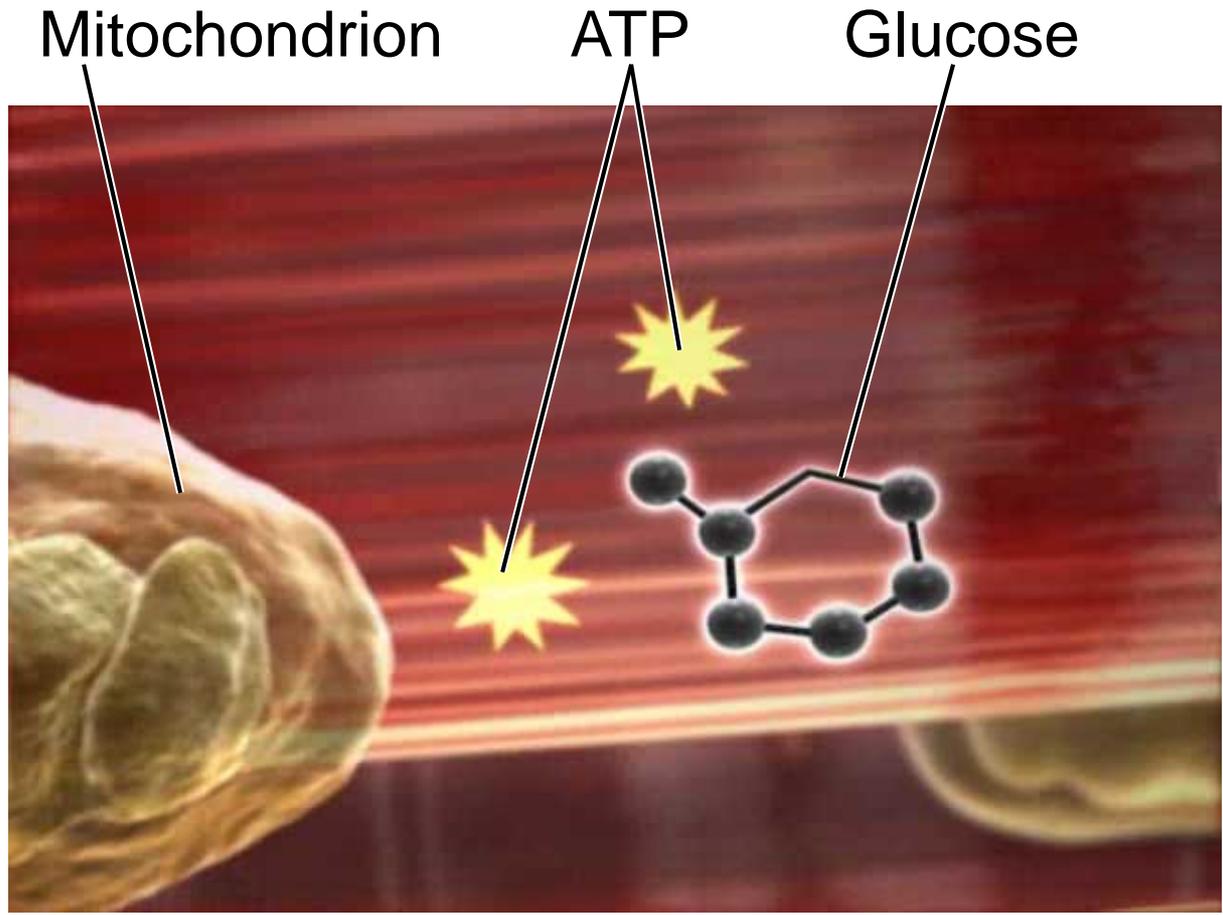
Water

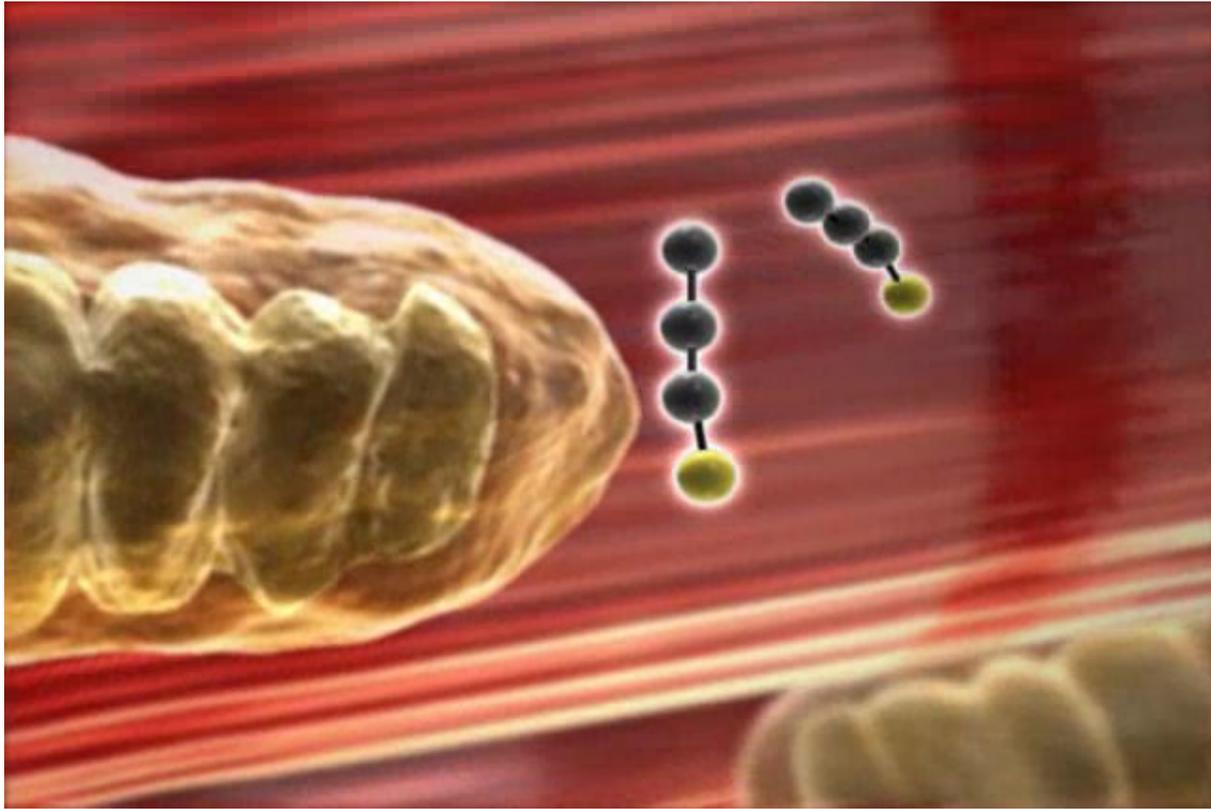
Carbon dioxide

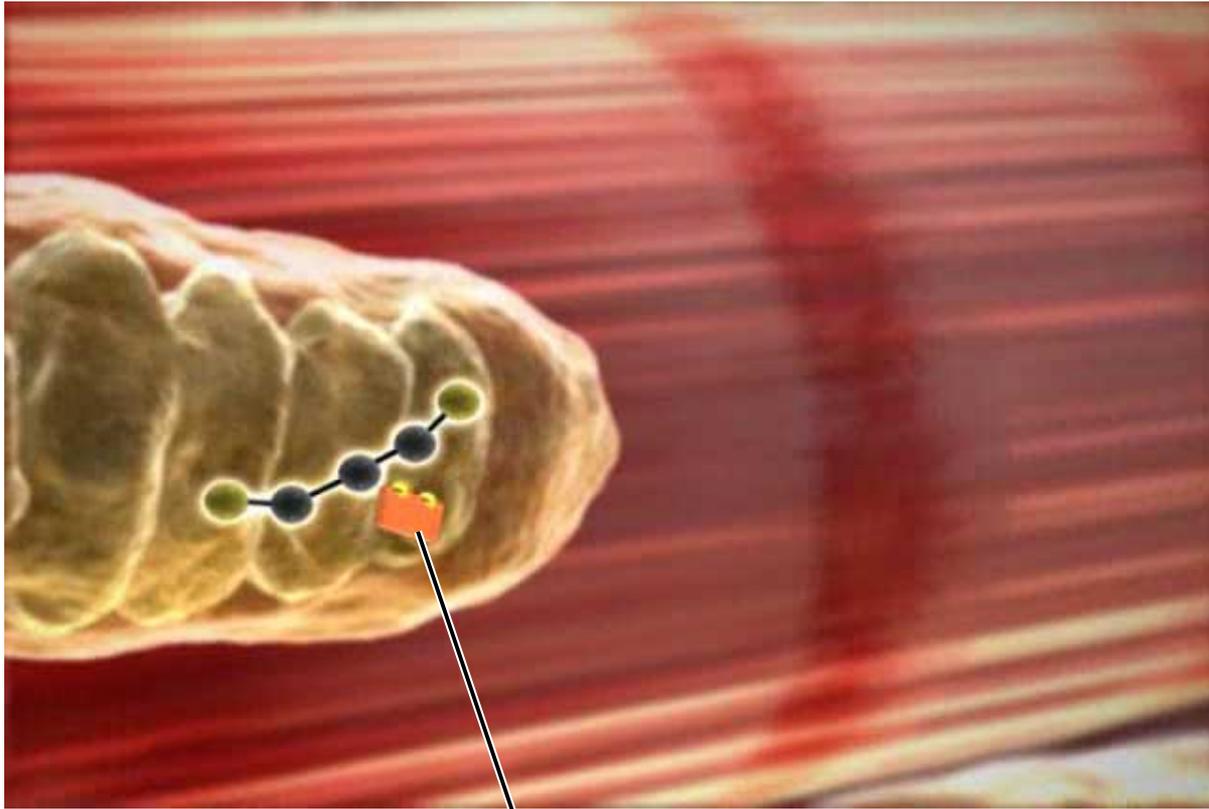
ATP

Fuel (glucose)

# Glycolysis





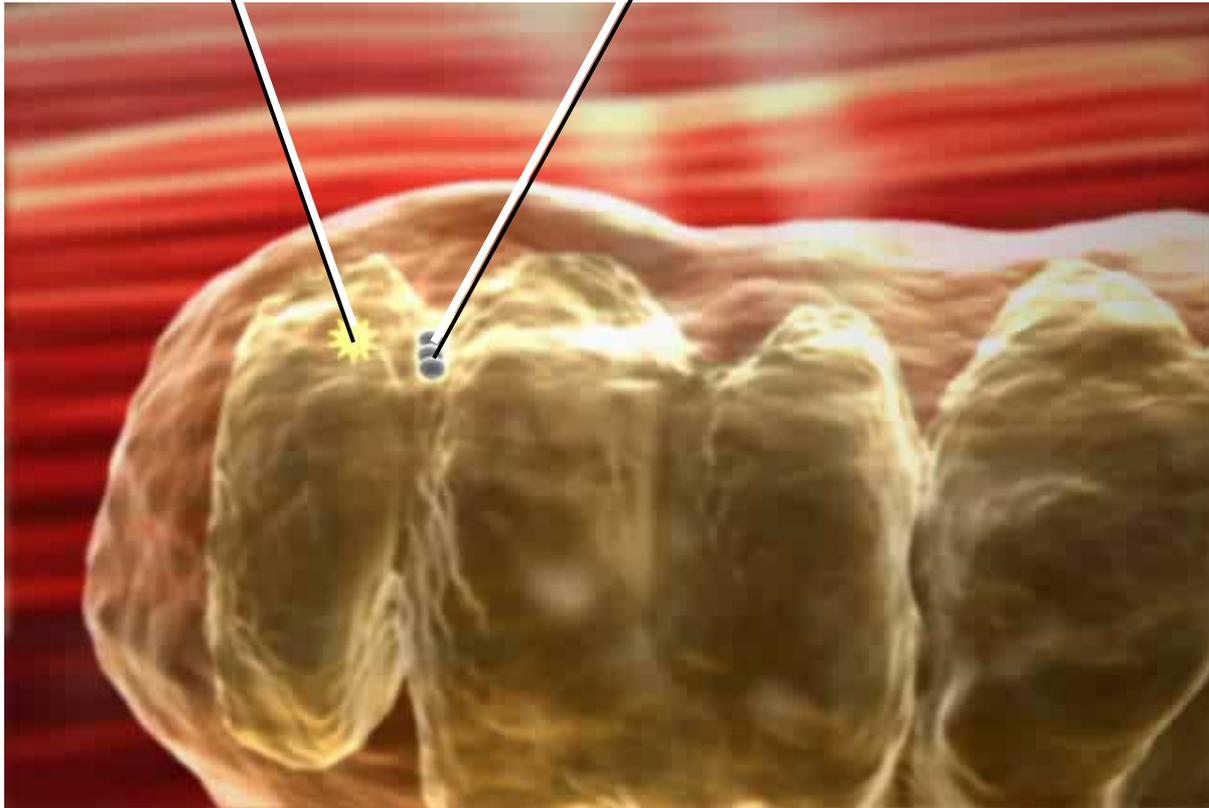


Electron carrier (NADH)



ATP

Pyruvic acid

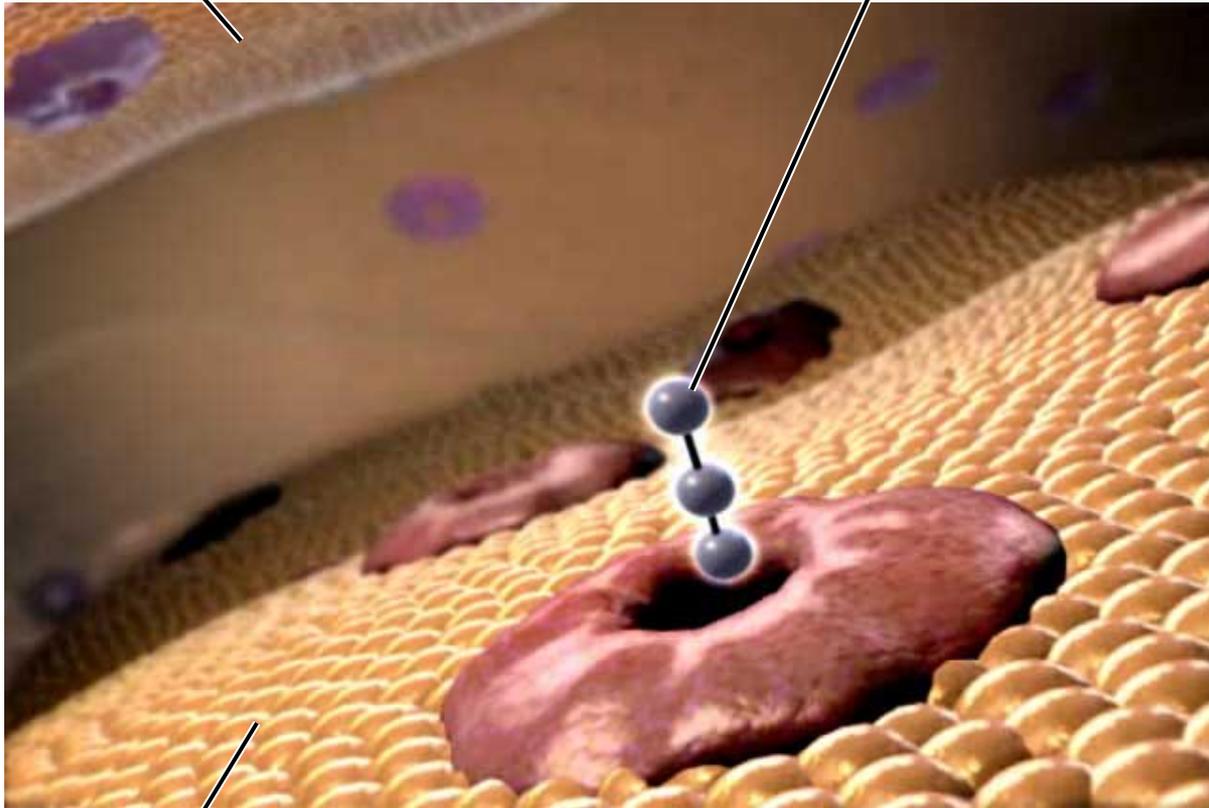


# Acetyl CoA Formation



Outer mitochondrial membrane

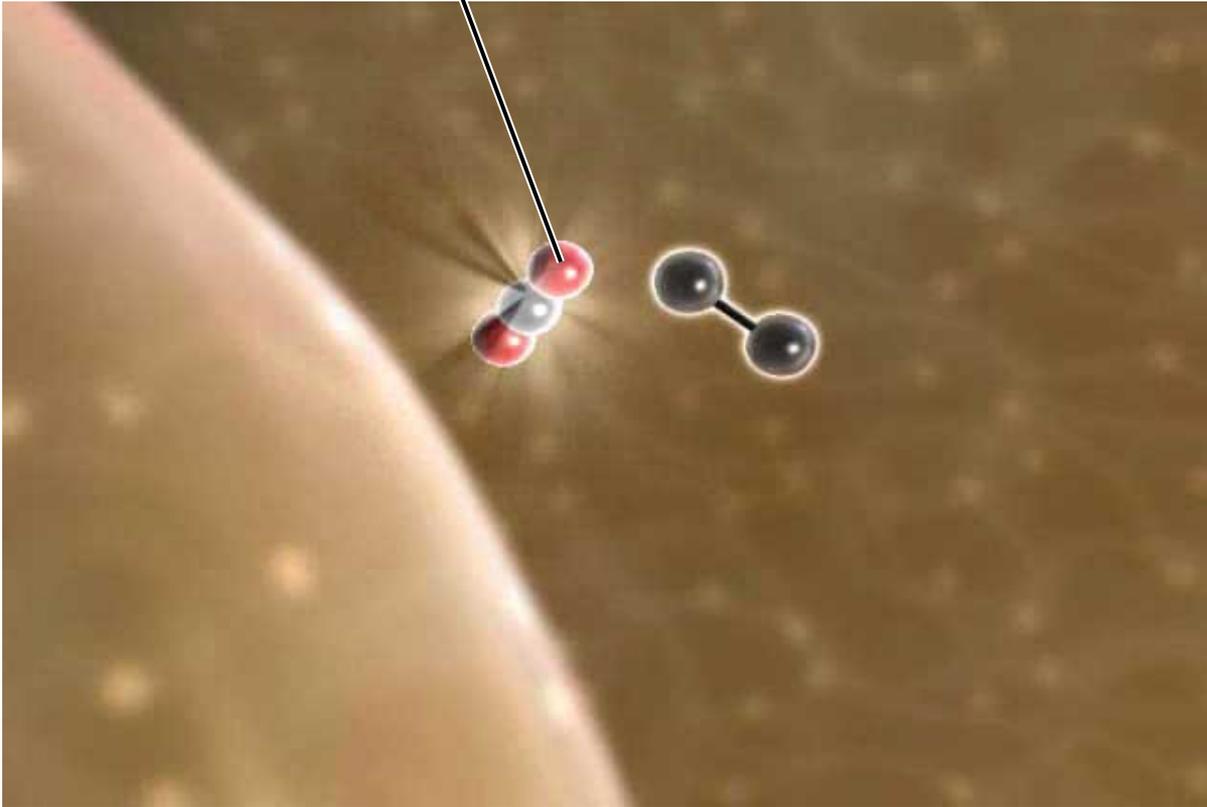
Pyruvic acid



Inner mitochondrial membrane

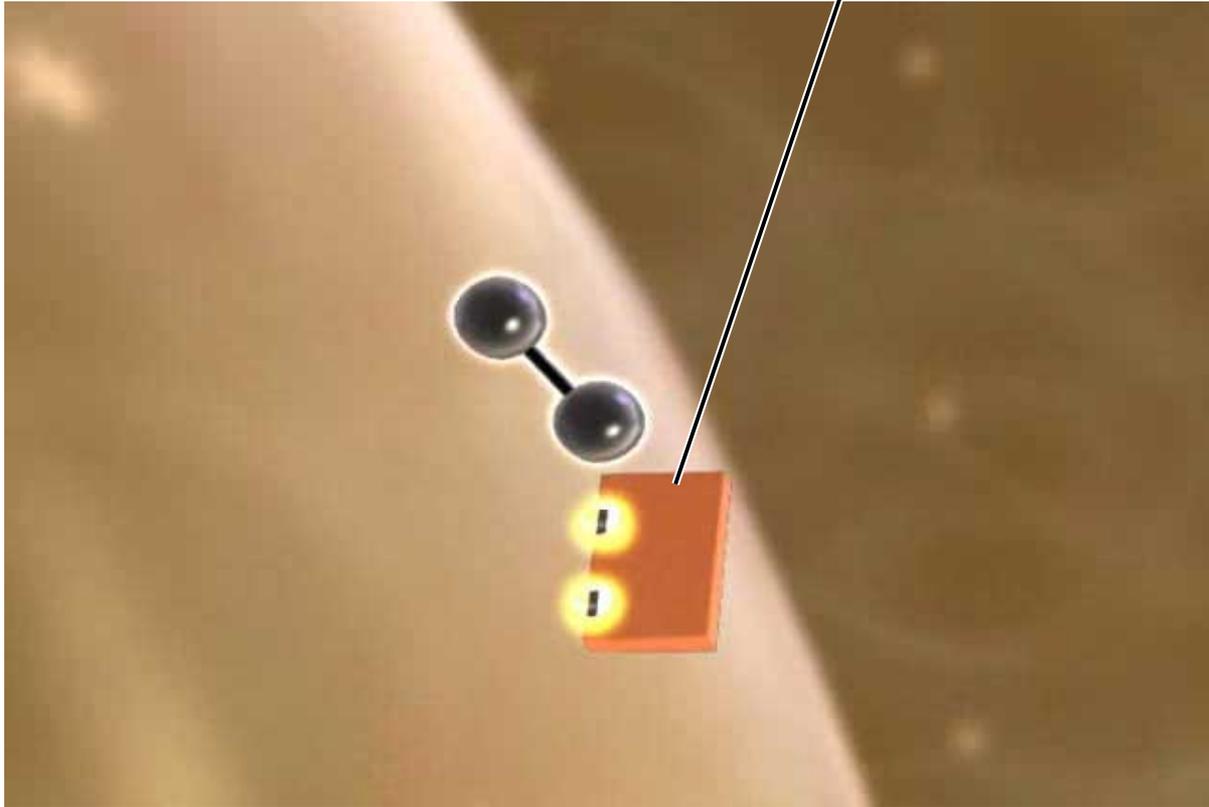


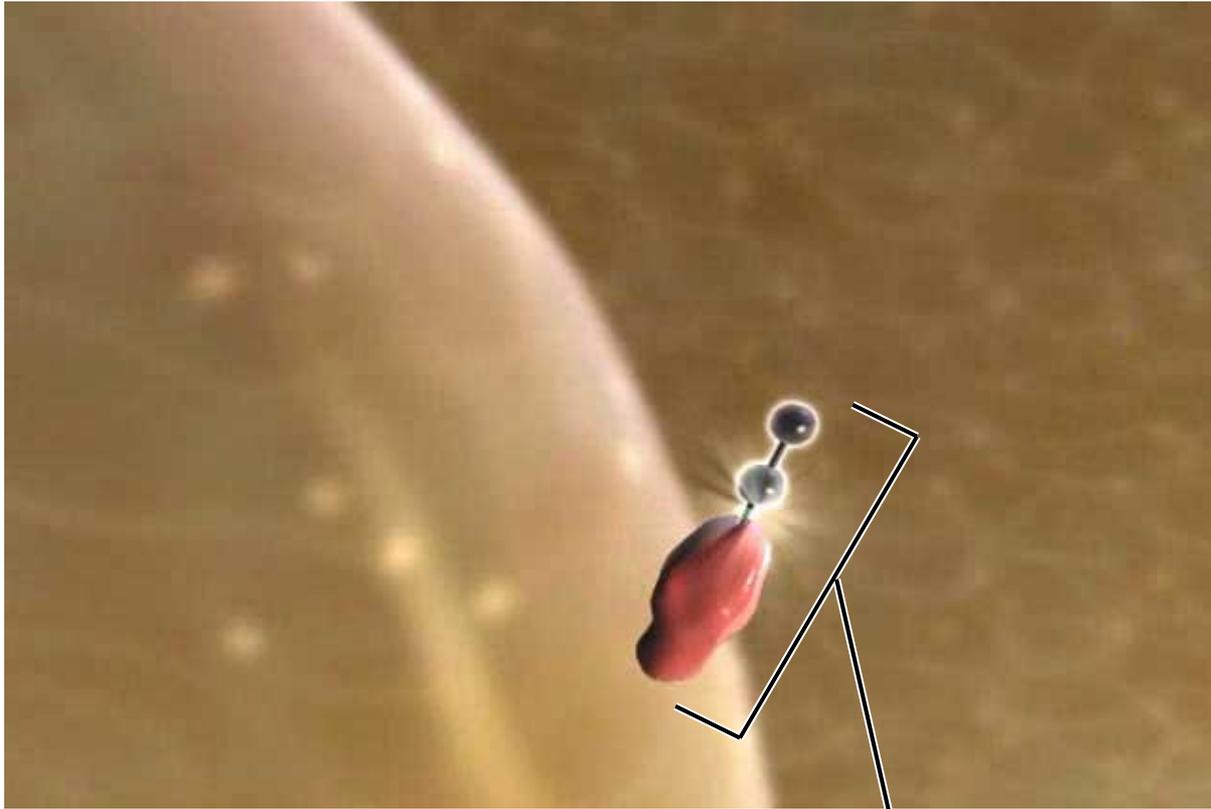
Carbon dioxide





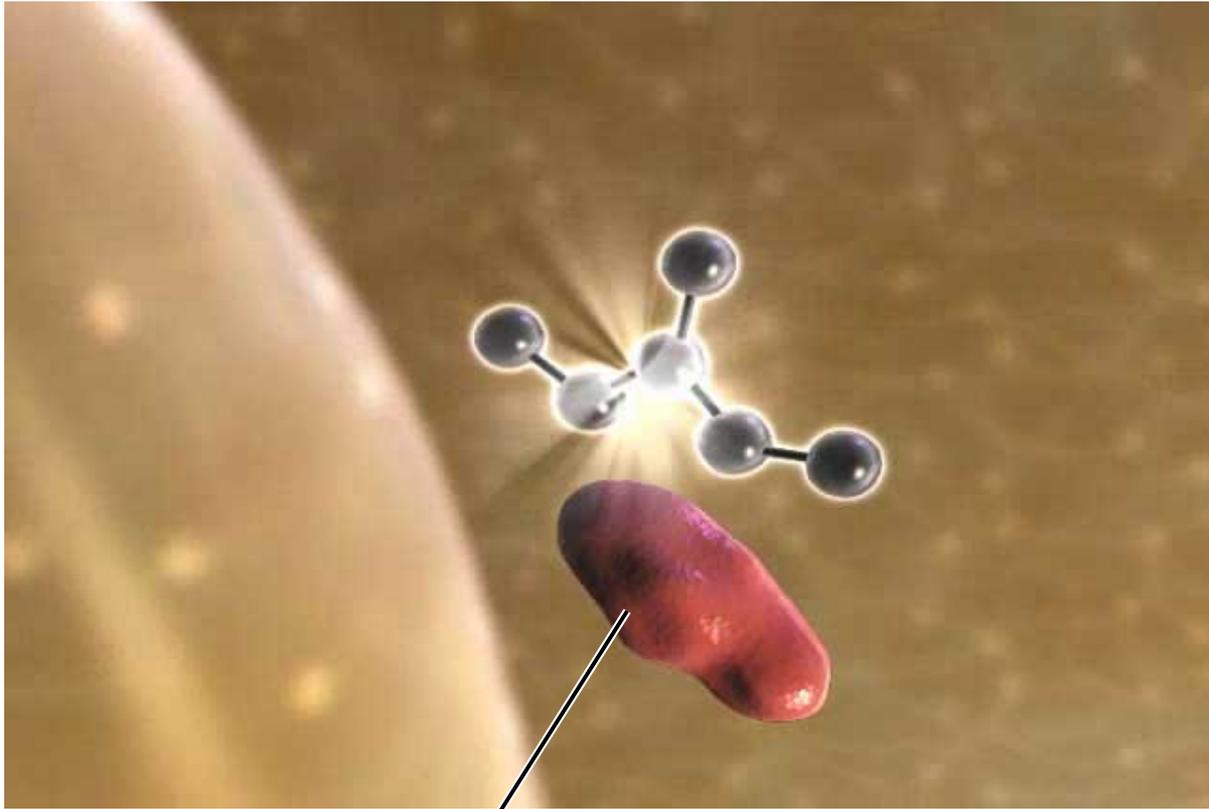
Electron carrier (NADH)





Acetyl CoA

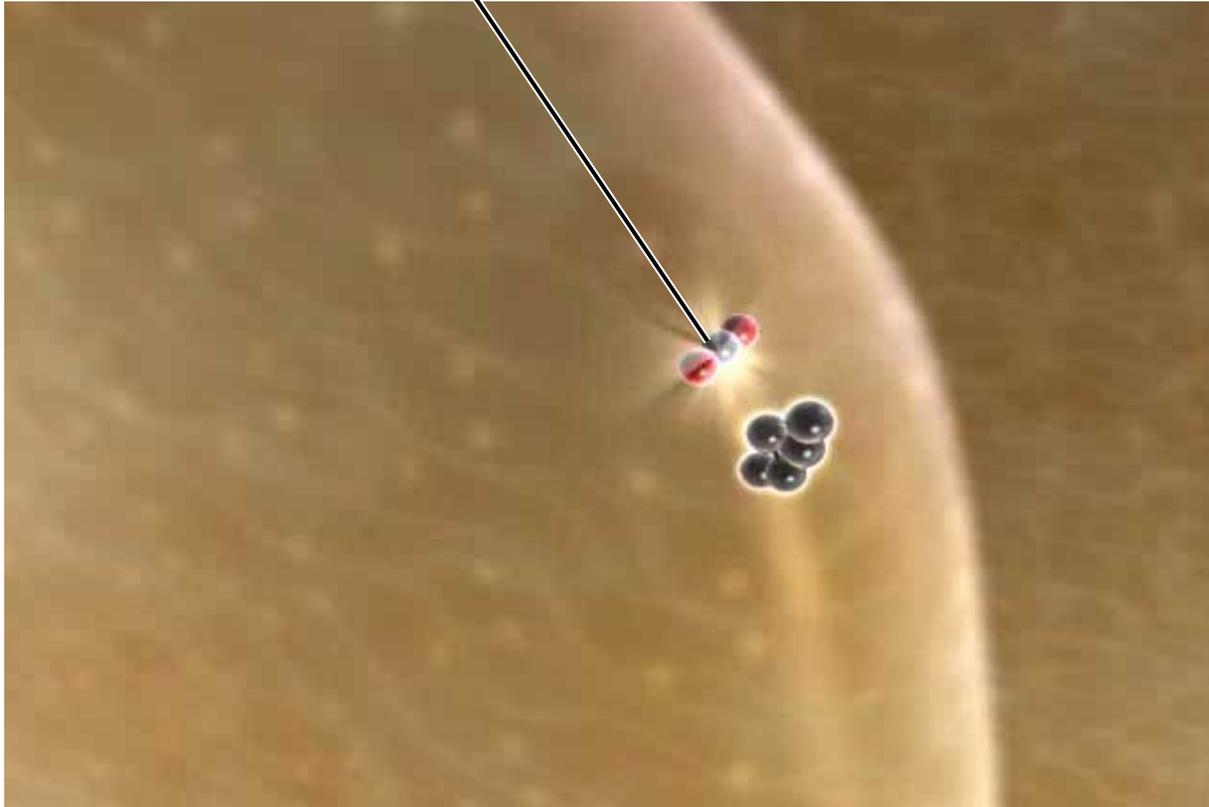
# Citric Acid Cycle (Krebs Cycle)



Coenzyme A

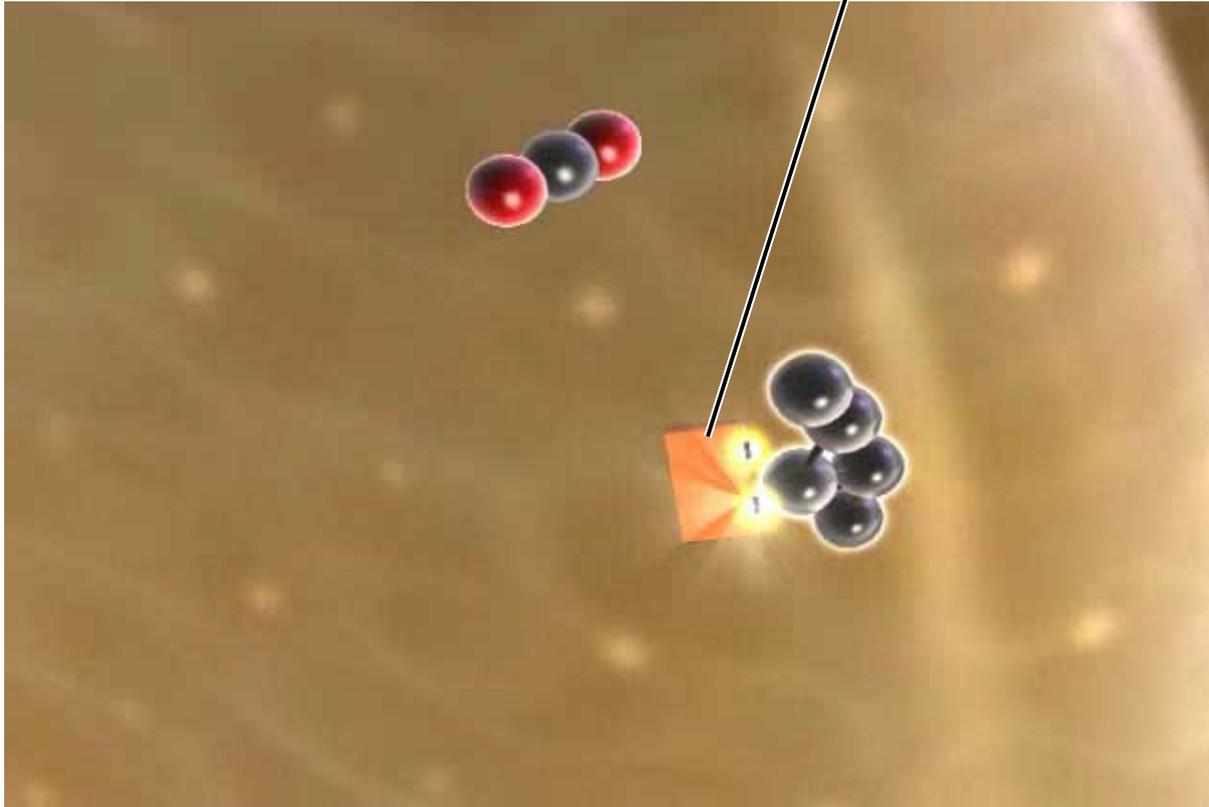


Carbon dioxide



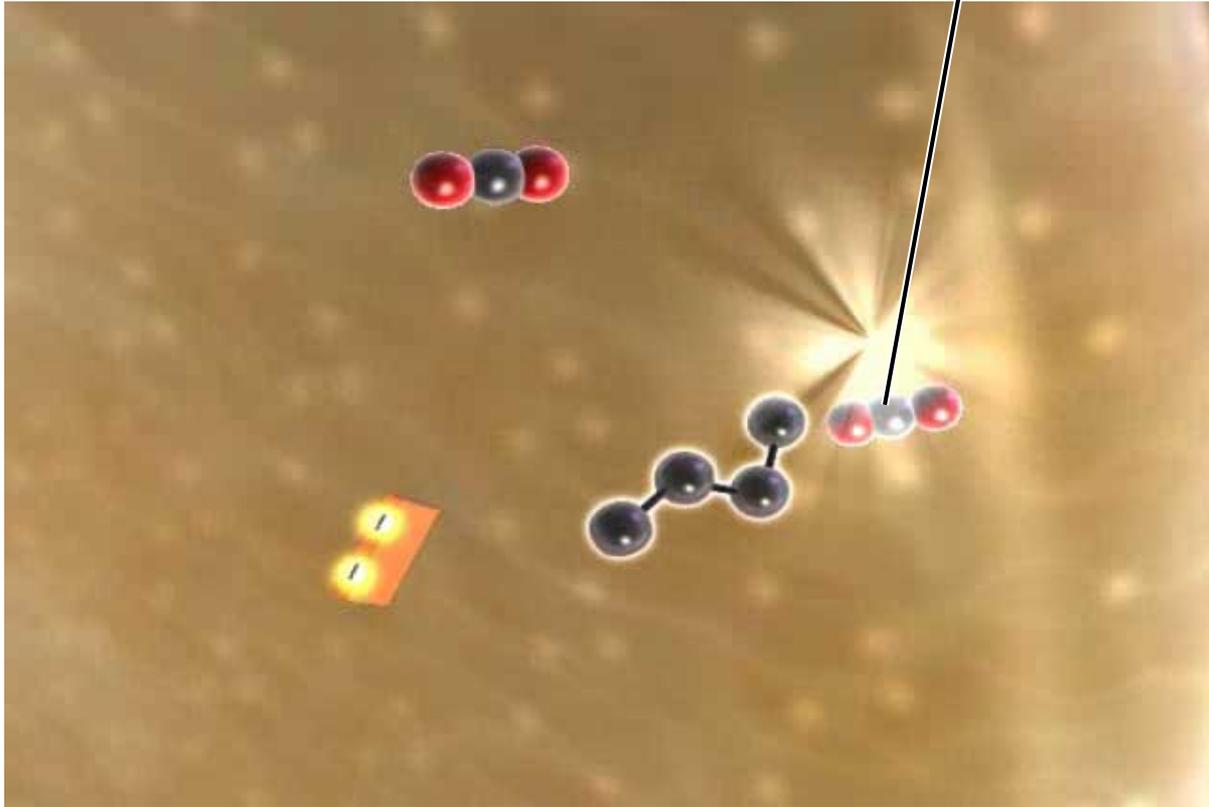


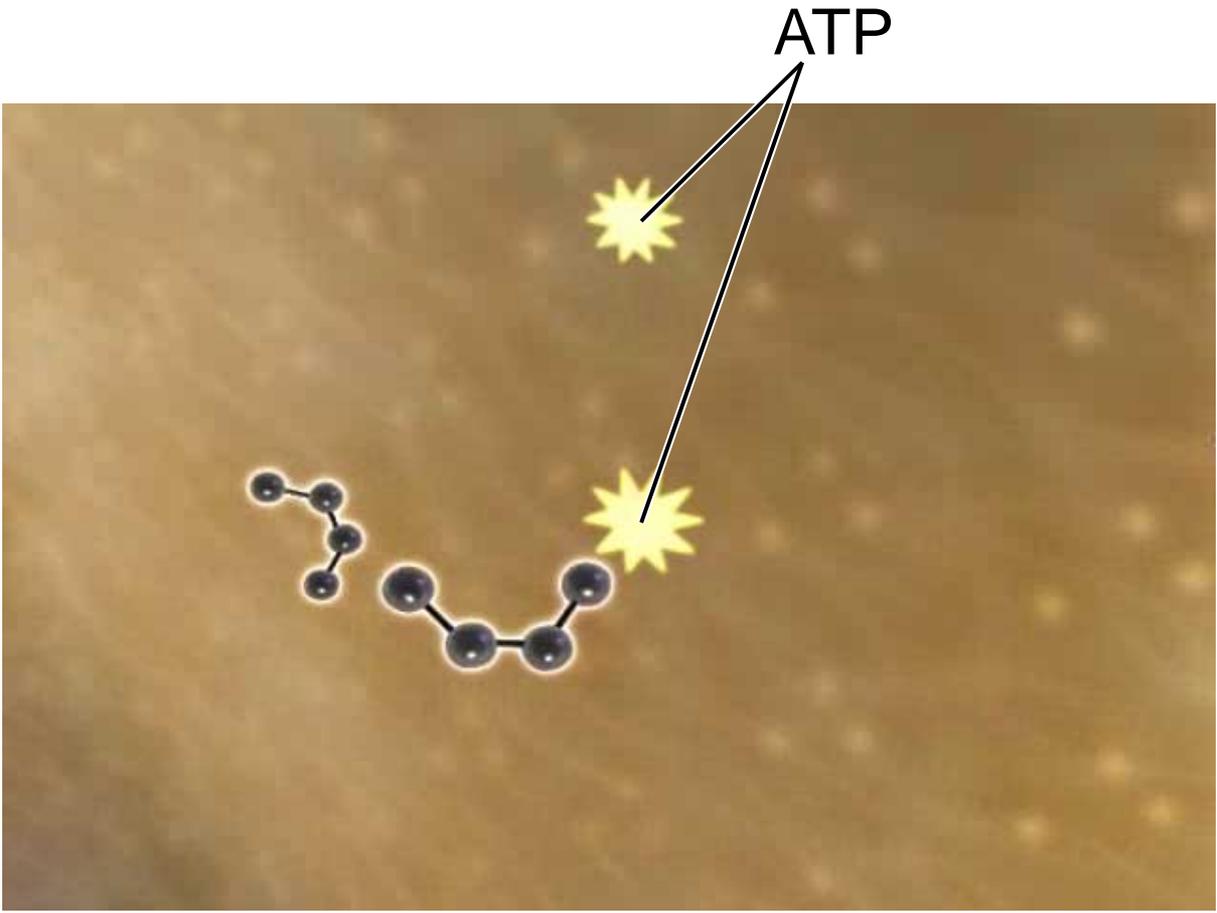
Electron carrier (NADH)





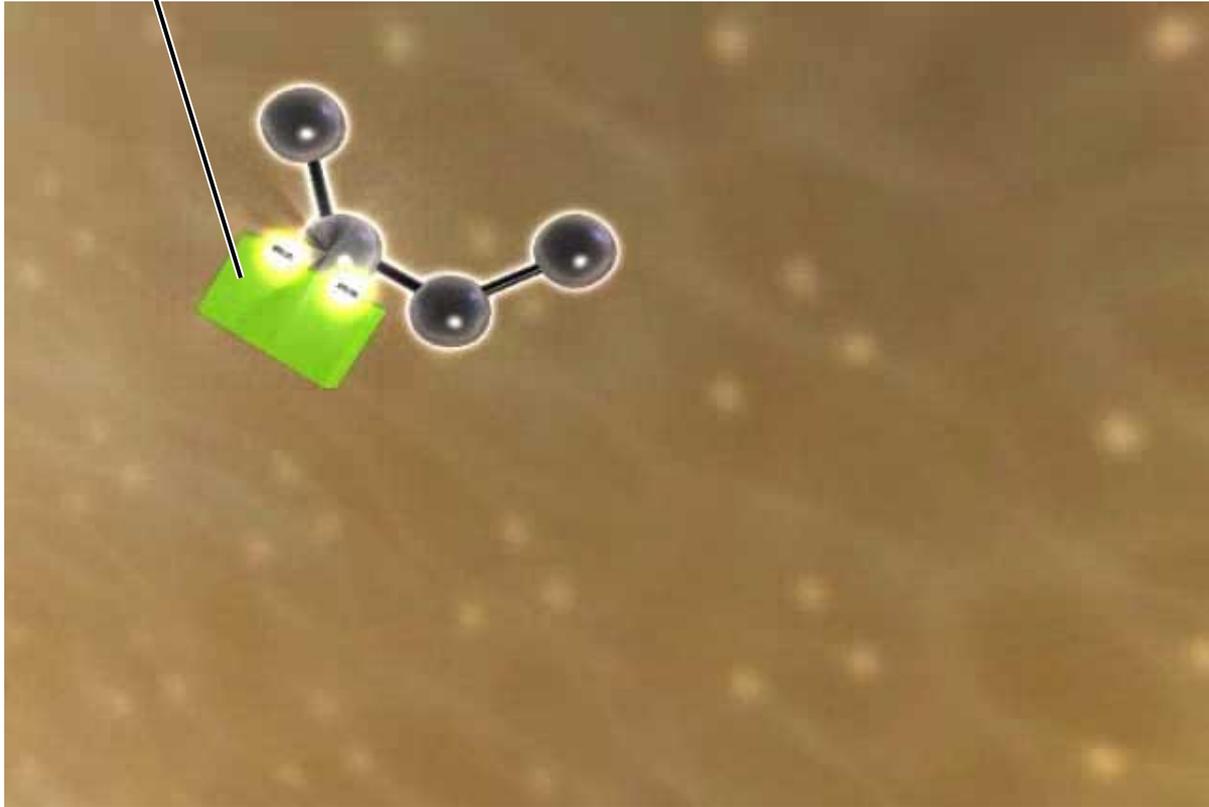
Carbon dioxide





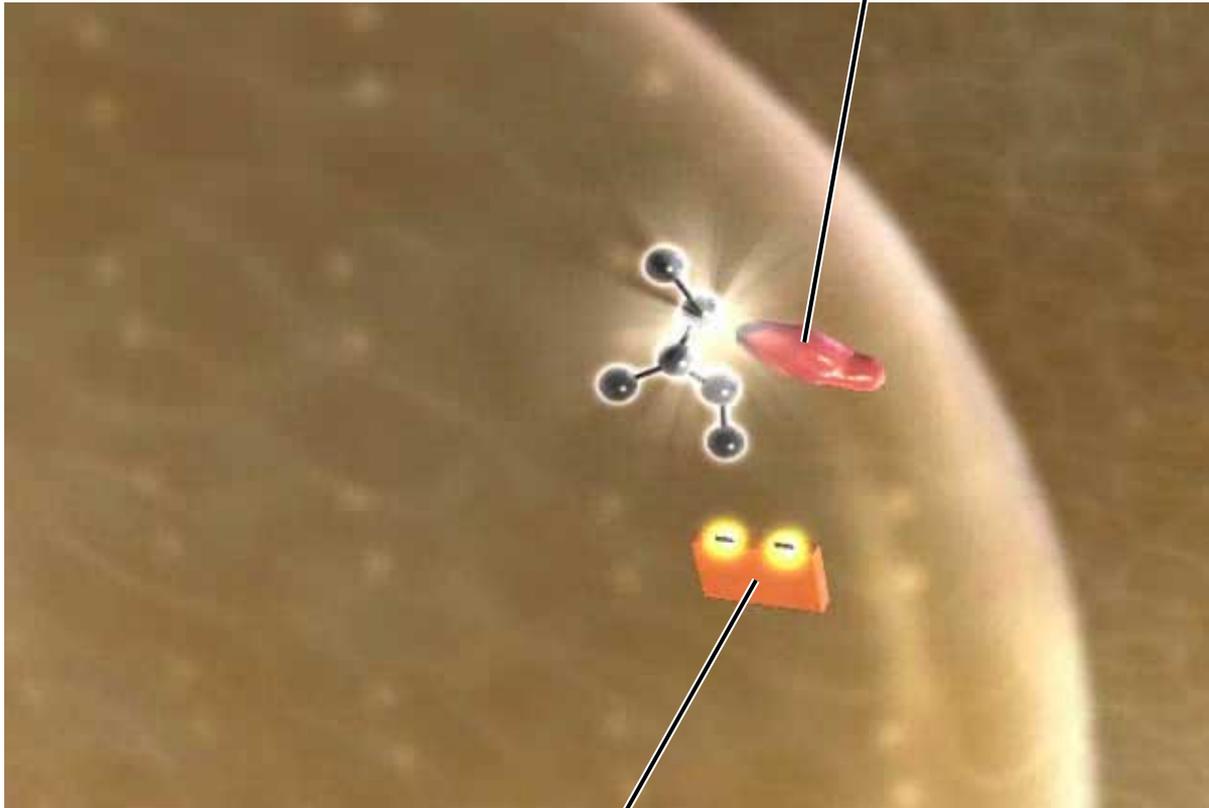


Electron carrier (FADH<sub>2</sub>)





Coenzyme A



Electron carrier (NADH)

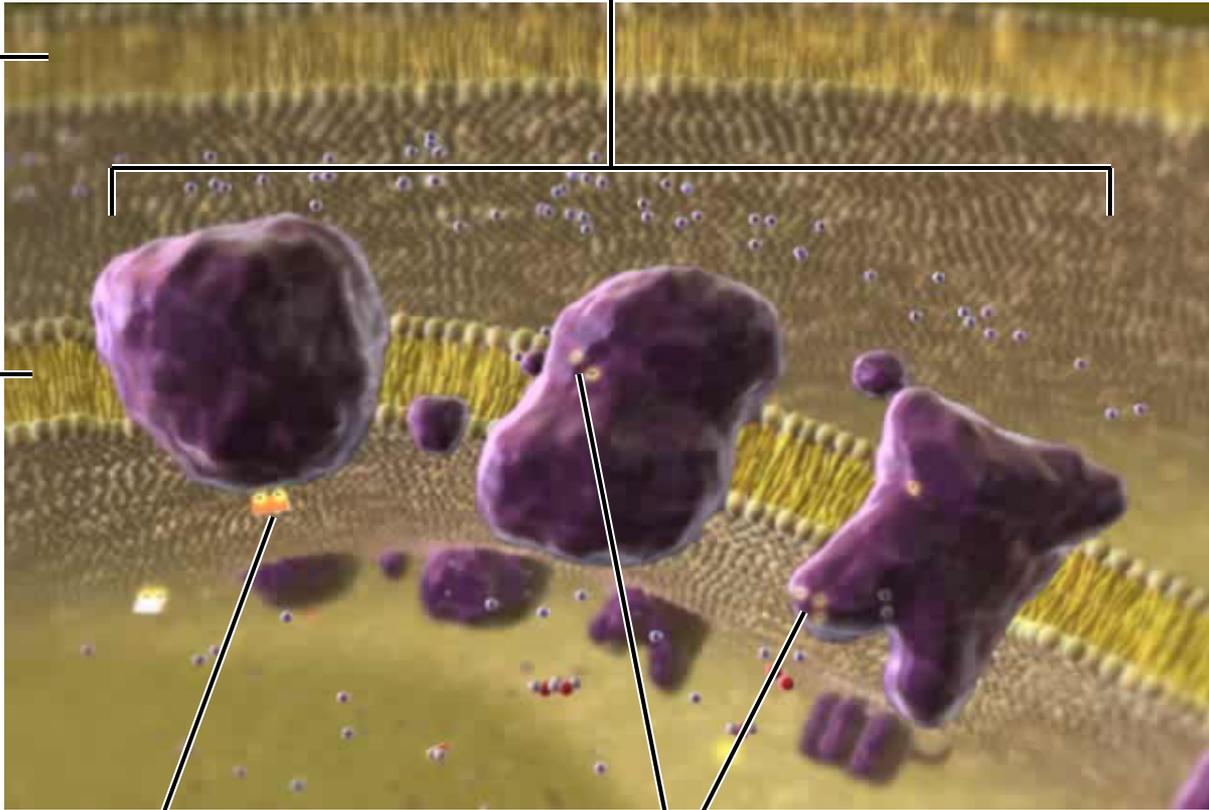
# Oxidative Phosphorylation: Electron Transport and Chemiosmosis



# Electron transport chain

Outer  
mitochondrial  
membrane

Inner  
mitochondrial  
membrane



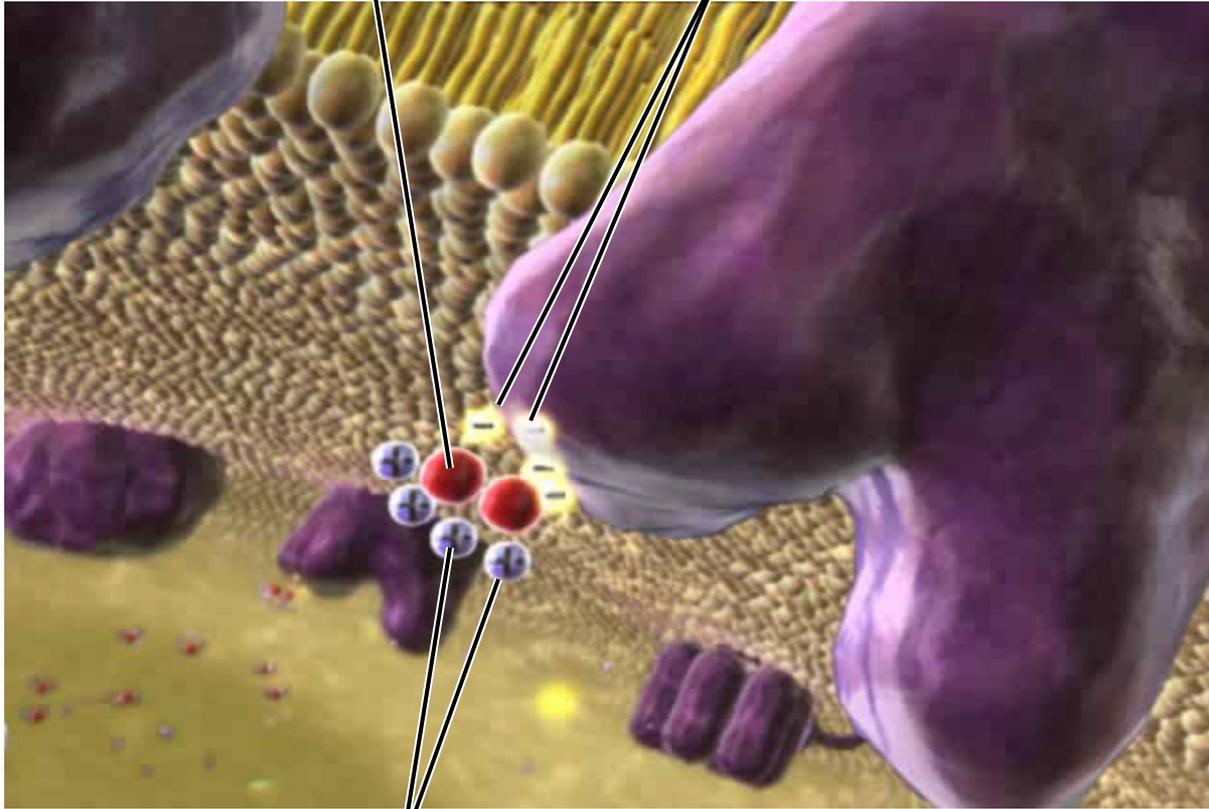
Electron carrier  
(NADH)

Electrons

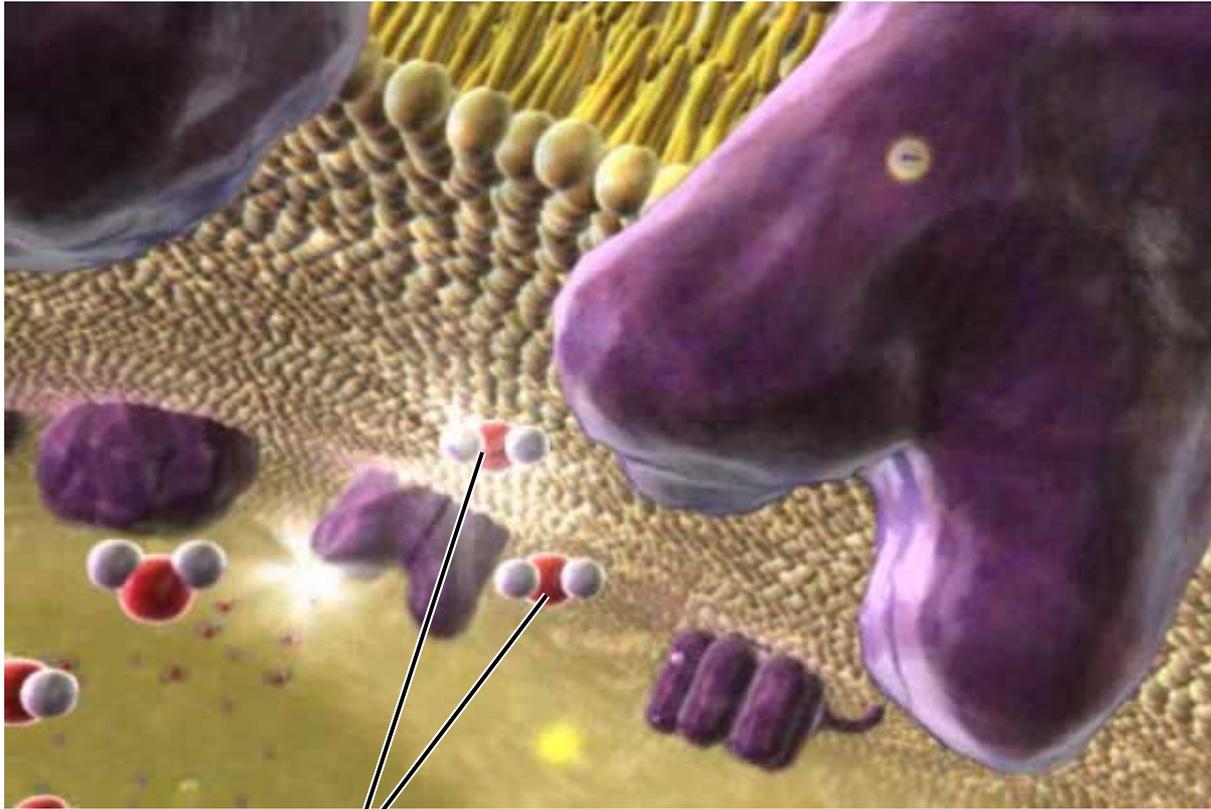


Oxygen

Electrons



Hydrogen ions



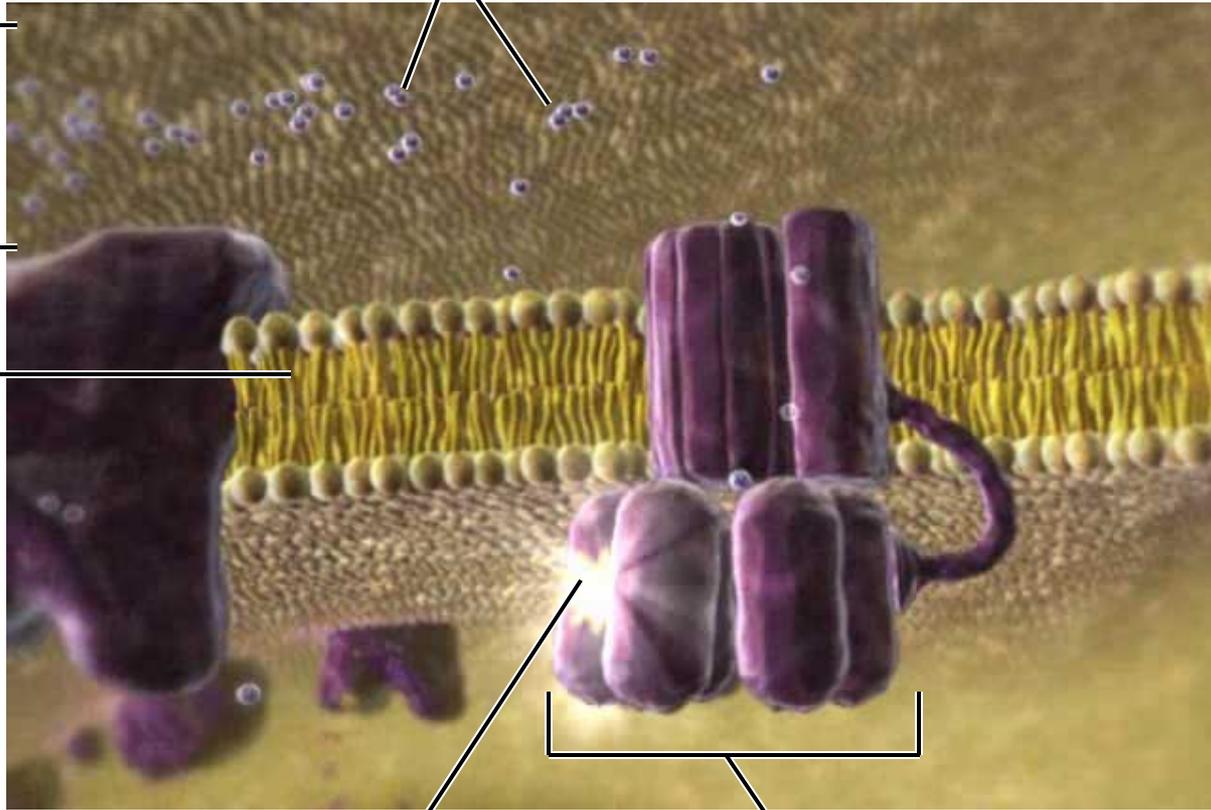
Water



Hydrogen ions

Area of high hydrogen ion concentration

Inner mitochondrial membrane



ATP

ATP synthase



Outer  
mitochondrial  
membrane

Inner  
mitochondrial  
membrane



